CORPORATION OF THE CITY OF
CLARENCE-ROCKLAND

ENVIRONMENT ADVISORY COMMITTEE

November 19, 2019, 7:00 pm
Council Chambers
415 rue Lemay Street, Clarence Creek, Ont.

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CORPORATION DE LA CITÉ DE CLARENCE-ROCKLAND

COMITÉ CONSULTATIF SUR L'ENVIRONNEMENT

le 19 novembre 2019, 19 h 00
Council Chambers
2e étage, Aréna de Clarence Creek
418 rue Lemay, Clarence Creek, Ontario

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CORPORATION DE LA CITÉ DE / CORPORATION OF THE CITY OF CLARENCE-ROCKLAND

PROCÈS-VERBAL / MINUTES

COMITÉ CONSULTATIF EN ENVIRONNEMENT / ENVIRONMENTAL ADVISORY COMMITTEE

Salle du Conseil municipal / Municipal Council Chambers 415 rue Lemay, Clarence Creek / 415 Lemay Street, Clarence Creek
Le 9 mai 2018, à 19h00 / May 9th, 2018 at 7:00 P.M.

Membres/Members : Mme/Mrs. Farah Florestant
Mme/Mrs. Lise Dallaire
Mme/Mrs. Kristine Veaudry

Personnes ressources/Resource Person : Mme/Mrs. Claire Lemay

Absent :
M./Mr. Mario Zanth
M./Mr. Carl Grimard

1. Ouverture de la réunion

Mme Kristine Veaudry ouvre la réunion à 19h05.

2. Adoption de l'ordre du jour

Proposé par : Lise Dallaire
Appuyé de : Farah Florestant

Que l'ordre du jour soit adopté avec l'addtion d'un item propose par Mme Lise Dallaire.
Adopté

3. Adoption du procès-verbal

Proposé par : Farah Florestant
Appuyé de : Kristine Veaudry

Que le procès-verbal de la réunion du 8 février 2018 soit adopté.
Adopté

1. Opening of the meeting

Mrs Kristine Veaudry calls the meeting to order at 7:09 pm.

2. Approval of the agenda

Moved by : Lise Dallaire
Seconded by : Farah Florestant

That the agenda be adopted with the addition of an item proposed by Mrs. Lise Dallaire.
Carried

3. Approval of the minutes

Moved by: Farah Florestant
Seconded by: Kristine Veaudry

That the minutes of the February 8th 2018 meeting be adopted.
Carried

4. Élection d'un nouveau président	**4. Election of a new president**
Mme Farah Florestant a nominé Mme Lise Dallaire, qui a refusé la nomination.	Mrs. Farah Florestant nominated Mrs. Lise Dallaire, who declined the nomination.
Proposé par : Farah Florestant Appuyé de : Kristine Veaudry	Moved by: Farah Florestant Seconded by: Kristine Veaudry
Que l'élection soit remise à plus tard jusqu'à ce que des nouveaux membres aient été appointés au Comité. **Adopté**	That the election be postponed until new members of the Committee have been appointed. **Carried**
5. Règlemetn sur la coupe d'arbres	**5. Tree cutting by-law**
Mme Lise Dallaire va faire plus de recherche et cet item sera ajouté à l'ordre du jour de la prochaine réunion.	Mrs. Lise Dallaire will do more research and this item will be added to the agenda for the next meeting.
6. Sujets choisis pour action future basé sur le sondage de 2013	**6. Items selected for future action based on survey from 2013**
Mme Kristine Veaudry a expliqué que les items importants à chaque membre du Comité ont été envoyés par courriel. Les items suivantes ont étés surlignés : la coupe à blanc / protection des arbres, protection des espaces verts, gestion des déchets (Recyclage, réduction des déchets, compostage), et la qualité d'eau (eau potable et les rivières).	Mrs. Kristine Veaudry explained that the subjects important to each member of the Committee were sent by email. The following items had been highlighted: clear cutting / protection of trees, protection of green spaces, waste management (recycling, waste reduction, composting), and water quality (drinking water and rivers).
Mme Farah Florestant a indiqué que la qualité de l'eau est son choix. Mme Kristine Veaudry a dit que ce	Mrs. Farah Florestant indicated that water quality is her choice. Mrs. Kristine Veaudry said that this

sujet l'intéresse parce qu'elle est intéressé par la qualité de l'eau des rivières. Elle dit qu'elle a de l'expérience avec ces enjeux à la Ville d'Ottawa, incluant les déversements des égouts. Elle a noté qu'il n'y a pas de règlement sur l'utilisation des égouts à Clarence-Rockland. Mme Farah Florestant a ajouté qu'il est une bonne idée de faire de la recherche pour savoir comment règlementer ce qui est mis dans les égouts. Mme Kristine Veaudry di que la Cité peut seulement traiter certaines choses et pas d'autres et que cet information devrait être diffusé au public.

Mme Kristine Veaudry a dit que la Comté avait décidé de ne pas poursuivre l'enjeux du compostage mais d'attendre le nouveau loi provincial. Mme Farah Florestant a dit que le Comité va continuer à regarder les projets de développement proposés.

Mme Farah Florestant a demandé que la borne de chargement de VE soit ajoutée à l'ordre du jour pour la prochaine réunion afin de recevoir un mis-à-jour du personnel sur le progrès de cet item.

Mme Kristine Veaudry a dit qu'elle fera des recherches à propos de traitement des aux usés. Mme Farah Florestant va rechercher des alternatives qui peuvent être offerts.

subject interests her as well because she is interested in water quality of the rivers. She said she has experience with the City of Ottawa water quality issues including sewer overflows. She noted that there is no by-law for use of the sewers in Clarence-Rockland. Mrs. Farah Florestant added that it would be a good idea to do some research to see how to regulate what is put into the sewers. Mrs. Kristine Veaudry says that the City can only treat certain things and not others and this information should be diffused to the public.

Mrs. Kristine Veaudry said that the Committee had decided earlier not to pursue the composting issue but to wait for new provincial legislation. Mrs. Farah Florestant said that the Committee will continue to look at proposed development projects.

Mrs. Farah Florestant asked that the EV charging station be added to the agenda for the next meeting to receive an update from staff on the progress of this item.

Mrs. Kristine Veaudry said that she will do some research about waste water treatment. Mrs. Farah Florestant will research what alternatives can be offered.

7. Bannir les sacs en plastique des magasins

Mme Lise Dallaire a dit que la Société environnementale a demandé que ce sujet soit discuté. Le Comité a discuté des alternatives différentes pour la réduction de l'utilisation des sacs en plastique et des différentes façons de réutiliser ou recycler les sacs en plastique. Il fut conclu que ce sujet était inapproprié pour le niveau municipal. Un changement culturel est nécessaire.

8. Date de la prochaine rencontre

Un « doodle » sera envoyé afin de déterminer la prochaine rencontre au mois de juillet ou août.

9. Ajournement de la rencontre

Proposé par : Farah Florestant
Appuyé de : Lise Dallaire

Que la réunion du 9 mai 2018 soit ajournée à 19h50.
Adoptée

Présidente

7. Banning plastic bags in stores

Mrs. Lise Dallaire said that the Environmental Society asked that this subject be discussed. The Committee discussed various options for the reduction of plastic bag use and ways of reusing or recycling plastic bags. It was concluded that the issue is not appropriate for the municipal level. A cultural change is needed.

8. Date of next meeting

A "Doodle" will be sent in order to determine the date of the next meeting in July or August.

9. Adjournment of the meeting

Moved by: Farah Florestant
Seconded by: Lise Dallaire

That the meeting of May 9th 2018 be adjourned at 7:50 pm.
Carried

_____
President

CORPORATION OF THE

CITY OF CLARENCE-ROCKLAND

NVIRONMENT ADVISORY COMMITTEE MEETING MINUTES

October 17, 2019
Council Chambers
415 rue Lemay Street, Clarence Creek, Ont.

PRESENT: Claire Lemay
Christian Simard
Diane Letourneau
Christopher Ralph
Isabelle Chartrand

ABSENT:

2. Adoption of the agenda

Moved by Christian Simard
Seconded By Christopher Ralph

THAT the agenda be adopted as presented.

CARRIED

1. Opening of the meeting

The Chair opens the meeting at 7:00pm.

3. Election of a president

Moved by Christopher Ralph
Seconded By Christian Simard

That Christopher Ralph be nominated as President of the Environmental Advisory Committee.

CARRIED

4. Adoption of the minutes

The minutes from the previous meeting of the Committee were not adopted.

5. Mandate and objectives of the Committee

Claire Lemay explained the mandate of the Committee and the initiatives that the Committee had worked on in the past, including an electric vehicle charging station and the tree cutting by-law. The Committee members discussed their options for objectives for the 2019-2020 timeframe. The following items were suggested: Tree preservation and tree planting policies; reduction of single-use plastics; composting; calculate the carbon footprint of the municipality; partnerships with local schools; a blog to inform citizens of environmental initiatives; reduction of road salt use; and establishment of a community garden.

It was determined that the Committee would commence with the calculation of the municipality's carbon footprint and move forward from there to develop a report to Council with recommendations of initiatives that could be undertaken in order to achieve a reduction in the municipality's carbon emissions. This list of recommended initiatives could include the other items discussed, such as tree planting and preservation, a community environmental blog, and community garden. Christopher Ralph volunteered to take on the task of completing the calculations, as he has experience with this. Diane Letourneau volunteered to do more research to prepare for creating a blog or some other form of community outreach communications.

6. Other Items

No other items were discussed.

7. Adjournment

The meeting is adjourned at 8:37pm.

_____ _____

President W Recording Secretary

CORPORATION DE LA

CITÉ DE CLARENCE-ROCKLAND

PROCÈS-VERBAL RÉUNION COMITÉ CONSULTATIF SUR L'ENVIRONNEMENT

le 17 octobre 2019
Salle du Conseil
415 rue Lemay Street, Clarence Creek, Ont.

PRÉSENT: Claire Lemay
Christian Simard
Diane Letourneau
Christopher Ralph
Isabelle Chartrand

ABSENT:

2. Adoption de l'ordre du jour

Proposé par Christian Simard
Appuyé par Christopher Ralph

QUE l'ordre du jour soit adopté tel que présenté.

ADOPTÉE

1. Ouverture de la réunion

Le président ouvre la réunion à 19h00.

3. Élection d'un président

Proposé par Christopher Ralph
Appuyé par Christian Simard

Que Christopher Ralph soit nominé président du Comité consultatif en environnement.

ADOPTÉE

4. Adoption des procès-verbaux

Le procès-verbal de la dernière réunion du Comité ne fut pas adopté.

5. Mandat et objectifs du Comité

Claire Lemay a expliqué le mandat du Comité et les initiatives que le Comité a travaillé dessus dans le passé, incluant une borne de chargement de véhicule électrique et le règlement sur la coupe d'arbres. Les membres du Comité ont discuté leurs options pour des objectives pour 2019-2020. Les items suivants ont été suggérés: politiques pour la préservation et la plantation d'arbres; réduction des plastiques à usage unique; le compostage; calculer l'empreinte de carbone de la municipalité; des partenariats avec des écoles locales; un blogue pour informer les citoyens des initiatives environnementales; la réduction de l'utilisation du sel sur les routes; et l'établissement d'un jardin communautaire.

Il fut déterminé que le Comité commencera avec calculer l'empreinte carbone de la municipalité et avancera au développement d'un rapport au Conseil avec des recommandations d'initiatives que l'on pourrait entreprendre pour effectuer une réduction des émissions carbones de la municipalité. Cette liste d'initiatives recommandées pourrait comprendre les autres items discutés, tels que planter et préserver des arbres, un blogue environnemental, et un jardin communautaire. Christopher Ralph s'est porté bénévole pour accomplir la tâche des calculs, parce qu'il a de l'expérience avec ceci. Diane Letourneau s'est porté bénévole pour faire de la recherche afin de se préparer pour créer un blogue ou autre forme de communication à la communauté.

6. Autres items

Aucun autre item fut discuté.

7. Ajournement

La réunion est ajournée à 20h37.

_____ _____

Président W Secrétaire

City of Clarence-Rockland, ON
2018 Annual Monitoring Report
Final Report

Prepared For:

Clarence-Rockland

Prepared by

Jp2g Consultants Inc.
1150 Morrison Drive, Suite 410, Ottawa, Ontario, K2H 8S9
T.613.828.7800 F.613.828.2600
Jp2g Project No. 17-6021B
March 2019

Jp2g Consultants Inc.
ENGINEERS · PLANNERS · PROJECT MANAGERS

Distribution List

# of Hard Copies	CD (PDF)	Chemical Data Base	Association / Company
3	1		City of Clarence-Rockland
	1		Jp2g Consultants Inc.
2	1	1	Ministry of the Environment, Conservation and Parks (District Office)

Jp2g Consultants Inc. Signatures

Caroline Béland-Pelletier, P.Eng.

Report Prepared By:

Caroline Béland-Pelletier, P.Eng. M.Sc., PMP
Environmental Engineer

Report Reviewed By:

Andrew Buzza, P.Geo
Senior Hydrogeologist / Project Manager

PROFESSIONAL GEOSCIENTIST
ANDREW BUZZA
PRACTISING MEMBER
0942
ONTARIO
08/03/19

EXECUTIVE SUMMARY

Jp2g Consultants Inc. (Jp2g) was retained by the City of Clarence-Rockland to conduct the 2018 Annual Environmental Monitoring Program for the Clarence Waste Disposal Site (WDS). The 2018 monitoring program included sampling and evaluation of groundwater and surface water quality in the vicinity of the site, as well as WDS gas monitoring. The monitoring program and related reporting was completed to fulfill the requirements of the Environmental Compliance Approval (ECA) in effect for the WDS. The evaluation of the 2018 monitoring program results indicates the following:

- A groundwater divide traverses the central part of the landfill site and directs the leachate groundwater flow primarily to the east/northeast within the shallow overburden sand unit. Some leachate migration into the deeper units has also occurred.
- Significant leachate impacts continue to be detected on the eastern side of the waste mound where wells present elevated concentrations of several leachate indicators such as chloride, total dissolved solids, boron, iron, hardness, manganese, sodium and dissolved organic carbon.
- The reasonable use concept concentrations were exceeded for one or more trigger parameters in every direction except along the northwest corner, in the area selected as representative of the background groundwater concentrations. The following mitigation measures are recommended:
    - continue to apply cover to minimize leachate;
    - augment the Contaminant Attenuation Zone (CAZ) to the west;
    - sample the residential wells to the west;
    - install a new well on the northern property limit;
    - test well G39-07 for the surveillance parameters in the eastern plume; and
    - maintain a ban on snow disposal activities.
- Surface water stations located around the on-site pond continue to show evidence of leachate impacts with elevated concentrations of chloride, DOC and conductivity. Exceedances of the trigger concentrations are found at all stations including upstream of the site. It was determined that no additional surface water mitigation measures are required at this time because the exceedances are either related to off-site sources, attenuated before leaving the site, or already addressed by existing attenuation measures.
- The monitoring program at the WDS should continue in 2019 in the spring and summer for groundwater, and in the spring, summer and fall for surface water. The following modifications to the 2018 program are recommended in 2019:
    - Groundwater monitoring inclusive of twelve (12) surveillance wells and twelve (12) routine wells;
    - Sampling of five (5) surface water stations for routine parameters and six (6) stations for surveillance parameters;
    - Perform monitoring wells maintenance and survey the elevation of the repaired wells;
    - Monitor groundwater level, surface water flow (L/sec) and combustible gas in the wells and on-site buildings;
    - Verify the contouring on the north side of the waste mound to determine if additional maintenance activities are required to address leachate breakout in that area;
    - Inspect the culvert on the east side of the pond to ensure it is not blocked; and
    - Consult with the Ministry of the Environment, Conservation and Parks (MECP) with regards to the applicability of Condition 2(17) of the ECA.

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1 INTRODUCTION

The Clarence-Rockland Landfill Site is located on Lot 15, Concession IV in the former Township of Clarence, United Counties of Prescott and Russell, Ontario. The site is located north of Lalonde Road approximately 3 kilometers north of Bourget, Ontario and 3 kilometers southwest of St. Pascal, Ontario (see Key Plan, **Figure 1**).

The landfill is owned and operated by the City of Clarence-Rockland (the City). It is an open landfill accepting solid non-hazardous municipal waste, with a total site area of 50 ha and approved waste footprint of 12 ha. Additional operational information, such as the approved and actual volumes of waste at the site, the projected site life, the area of the current waste cell footprint, and information on final cover, slopes, engineering controls and recent site developments, can be found in the annual operations report (provided under separate cover).

This report provides a discussion of the groundwater and surface water geochemistry (including apparent trends over time) at the site based on field data obtained during the 2018 monitoring program carried out by Jp2g Consultants Inc. This report is intended to fulfil part of Condition 6(7) (pertaining to the annual monitoring report) of Amended Provisional Certificate of Approval (C of A, now ECA) No. A471203, dated October 21, 2009 and Condition 7.2 (pertaining to annual reporting) of C of A No. 3362-6D7PL4, dated June 24, 2005. The Monitoring and Screening Checklist is presented in **Appendix A**.

1.1 Site History

According to McNeely Engineering Consultants Limited (1991), the site was opened in the early 1970's to provide waste disposal for the former Township of Clarence residents only. Waste placement began using a trench and fill operation. The depth of the trenches was apparently restricted due to the relatively high groundwater table and caving of the surficial granular layer into the trenches during excavation and operation. According to MacLaren Engineers Inc. (1982), the trench method of operation was converted to an area method of fill in 1982.

The landfill site was originally licensed under Provisional C of A No. A471203 dated November 10, 1980 to accept domestic, commercial and non-hazardous solid industrial waste. An Emergency Provisional C of A No. A471203 dated December 13, 1991 was issued after the local Ministry of the Environment and Climate Change (MOECC) office in Cornwall, now the Ministry of Environment, Conservation and Parks (MECP), advised the former Township of Clarence that their landfill had reached its approved capacity. One of the conditions of the Emergency C of A was that the former Township prepare and submit to the MOECC an application and supporting documentation for a Waste Disposal Site Interim Expansion. The former Township of Clarence complied and was issued an Interim C of A No. A471203 in June 1994. During 1995, the former Township of Clarence embarked on an environmental assessment process to identify a twenty-five year strategy for management of its waste after June 1999.

On January 1, 1998, the Township of Clarence amalgamated with the Town of Rockland to form the City of Clarence-Rockland, which is the current owner and operator of the landfill.

In October 2000, an application for landfill site expansion under the Environmental Protection Act was submitted to the MOECC. This application included the 2000 Golder Associates report on hydrogeological and geotechnical design considerations. Provisional C of A No. 471203 was issued by the MOECC on October 18, 2001 for the expansion of the landfill site (50 ha total site area and 12 ha waste footprint). An amended Provisional C of A No. A471203 was issued in March 23, 2004, October 21, 2009, September 9, 2015, August 19, 2016 and December 20, 2018. The MOECC also issued C of A No. 3362-6D7PL4 on June 24, 2005 for the operation of the On-Site Pond as a natural attenuation facility for stormwater runoff and leachate-impacted groundwater.

The current ECA for the site can be found in **Appendix B** of this document.

1.2 Site Contact Information

The site contacts are shown in **Table 1**.

Table 1: Site Contacts

Contact	Name	Address	Phone Number	Fax Number	Email Address
Site Owner/Operator	City of Clarence-Rockland	1560 rue Laurier Street, Rockland, ON K4K 1P7	613-446-6022	613-446-1497	
Groundwater CEP Surface Water CEP	Andrew Buzza, P.Geo Jp2g Consultants Inc.	1150 Morrison Drive Suite 410 Ottawa, ON K2H 5B7	613-828-7800	613-828-2600	Andrewb@jp2g.com
Contact Person for Environmental Issues at Site	Nicolas Burelle City of Clarence-Rockland	1560 rue Laurier Street, Rockland, ON K4K 1P7	613-446-6022 ext. 2251	613-446-1497	nburelle@clarence-rockland.com

1.3 Ministry of the Environment, Conservation and Parks Comments

The correspondence received in 2018 from the Ministry of the Environment, Conservation and Parks (MECP) is limited to the amendment of the ECA issued on December 20, 2018. This amendment reflects the updated site entrance and facilities reconfiguration.

The following correspondence was received/issued during the 2017 monitoring period:

- MOECC, Industrial Sewage Inspection Report, City of Clarence Rockland Waste Disposal Site, April 20, 2017.

- MOECC, Solid Non-Hazardous Waste Disposal Site Inspection Report, City of Clarence Rockland Waste Disposal Site, April 20, 2017.
- MOECC, Clarence-Rockland Landfill 2016 Annual Monitoring Report Hydrogeological Review, May 4, 2017.
- City of Clarence-Rockland, Response to Solid Non-Hazardous Waste Disposal Site Inspection Report, Clarence-Rockland Landfill Site, Reference Number 0440-AKURUK, August 29, 2017.

All comments related to the 2017 correspondence have been addressed in the 2017 Annual Monitoring Report (AMR) submitted by Jp2g in March 2018, or in the December 20, 2018 ECA with the exception of the discussion regarding the additional contaminant attenuation zone (CAZ), which is still on-going and the removal of condition 2(17) from the ECA, which was not included in the last ECA amendment. Condition 2(17) requires that the Sewage Works ECA No. 3362-6D7PL4 be amended to account for the household hazardous waste (HHW) depot, the new site entrance, and the weigh scales and other related works. It is not clear if Condition 2(17) is still applicable. The MECP should be consulted to determine the best course of action in relation to this outstanding amendment.

The latest MECP correspondence is presented in **Appendix C**.

2 MONITORING PROGRAM

2.1 Objectives

The 2018 groundwater and surface water program was carried out in accordance with Conditions 8(5) and 8(6) of Amended Provisional C of A No. A471203. The objectives of the program were to monitor background water quality; leachate quality; water quality within the area impacted by landfill leachate; and water quality along the interpreted leading edge of the leachate-impacted plume. Monitoring wells were also monitored for methane gas to assess the potential risks with respect to subsurface methane gas migration towards existing and proposed on-site buildings. Groundwater and surface water sampling locations at the landfill site are shown on **Figure 2**. Site stratigraphy and monitoring well construction is presented in **Appendix D**.

2.2 Groundwater Monitoring

The groundwater monitoring sessions were conducted during the spring (April 30 and May 1, 2018) and summer (August 20-21, 2018). The groundwater monitoring program included measurement of groundwater elevations and collection of groundwater samples for subsequent chemical analysis for routine and surveillance parameters. A detailed description of the groundwater sampling protocol is presented in **Appendix E**. Laboratory reports of analysis are presented in **Appendix F**. The details of the monitoring wells and the groundwater levels for the 2018 program are presented in **Table G-1** and **G-2** of **Appendix G**, respectively. The inorganic historical analytical results including the 2018 concentrations are presented in **Appendix H-1**. Wells P6-91, P1-91 and P5B-91 were analyzed for volatile organic compounds (VOCs) in 2018 and the results are shown in **Appendix H-2**.

The routine parameters included chloride, hardness, sodium, ammonia, iron, manganese, boron, total phosphorus, dissolved reactive phosphorus (ortho phosphate), alkalinity, dissolved organic carbon (DOC) and total dissolved solids (TDS). Surveillance parameters included all of the routine parameters plus calcium, magnesium, potassium, aluminum, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silicon, silver, strontium, sulphur, thallium, titanium, vanadium, zinc, biochemical oxygen demand (BOD), nitrite, nitrate, sulphate, total kjeldahl nitrogen (TKN), chemical oxygen demand (COD) and phenols. Selected wells that are part of the surveillance package were also analyzed for VOCs.

The temperature, pH and conductivity of the groundwater samples were measured in the field at the time of sample collection. All groundwater samples were placed in coolers with ice packs until they were delivered to the private analytical laboratory. All laboratory chemical and physical analyses on groundwater samples were completed by Caduceon Environmental Laboratories in Ottawa, Ontario.

The wells were inspected at the time of sampling. In 2018, all wells on site were observed to have locks that either did not exist or did not function. Several monitoring wells were also lacking protective casing including P1-90, P2-40, P4-90, P6-91, P7-91, G17-92, G18-92, and G31A-98. These wells should be upgraded in 2019.

Maintenance was performed on selected wells so that they could fit in their protective casing. The following monitoring wells had heaved up and were cut: G39-07 (-0.14m), G43-11 (-0.16m), G14-92 (-0.040m) and G13-92 (-0.255m). The elevations of **Appendix G** were manually adjusted by subtracting the cut lengths from the top of casing values. When possible, these wells should be resurveyed to obtain more accurate elevations.

Monitoring well G9A-92, was reported in September 2017 to be broken at 1.14 m from the top. This well should be evaluated to determine if repair work is possible.

Other maintenance requirements noted in 2018 are the requirement to remove a tree that had fallen on G36-01, and clearing the path from G20-92 to G26-94 so that the wells can be accessed. These recommendations were addressed in the fall 2018.

The 2018 program is summarized in **Table 2** and in **Figure 2**.

Table 2: 2018 Groundwater Sampling Program

Well ID	Coordinates (Zone 18T)		Required by ECA	VOCs		Inorganics	
	Easting	Northing		May-18	Aug-18	May-18	Aug-18
P1-91[2]	487233	5034554	Y – S	√	√	√	√
P2-90	486888	5034453	Y – R			√	√
P3-90	--	--	N			Decommissioned	
P4-90	486847	5034686	Y – S			√	√
P5A-91	487123	5034440	N				
P5B-91	487124	5034438	Y – S	√	√	√	√
P6-91	487171	5034643	Y – S	√	√	√	√
P7-91	486863	5034936	N				
G8A-92	--	--	N				
G8B-92	--	--	N				
G8C-92	486865	5034672	Y – R			√	√
G9A-92	487202	5034432	N				
G9B-92	487202	5034432	N				
G9C-92	487205	5034434	N				
G11-92	--	--	N			Destroyed	
G12-92[1]	487372	5034397	Y – S			√ (Dup G45)	√
G13-92 [3]	487063	5034945	Y – R			√	√
G14-92	487035	5034756	N				
G15-92	487100	5034621	N				
G17-92[1]	487332	5034516	Y – R			√	√
G18-92	486944	5034963	Y – S			√	√
G19-92	--	--	N			Destroyed	
G20-92	487056	5034389	Y – R			√	Dry
G21-94[1]	487260	5034413	Y – R			√	√
G23-94	486854	5034576	N				

Well ID	Coordinates (Zone 18T)		Required by ECA	VOCs		Inorganics	
	Easting	Northing		May-18	Aug-18	May-18	Aug-18
G24-94	--	--	N			Destroyed	
G25-94	486845	5034678	N				
G26-94	486833	5034800	Y – S			√	√
G27-97	487159	5034790	Y – R			√(Dup G46)	√
G28-97	487266	5034643	Y – R			√	√
G29-97	486851	5034577	Y – S			√	√
G30-97	487245	5034672	N				
G31A-98	487352	5034584	N – R			√	√ (Dup G45)
G32A-98	486858	5034575	N				
G32B-98	--	--	N				
G33A-98	487116	5034947	N				
G33B-98	487116	5034947	N				
G36-01	486934	5034487	Y – R			√	√
G37-01	486941	5034357	Y – S			√	√
G38-03	486900	5034599	Y – R			√	√
G39-07	487311	5034826	Y – R			√	√
G40-07	487414	5034671	Y – R			√ (Dup G44)	√
G41-10	--	--	N			Destroyed	
G42-10	487612	5034816	Y – S			√	√
G43-11	487463	5035074	Y – S			√	√
Trip Blank	--	--	--	√	√		
Field Blank	--	--	R				

Note:
Y: Yes, N: No, R: Routine Parameters, S: Surveillance Parameters, DUP: Blind duplicate
(1) A cut-off wall was constructed along the southern property boundary of the site during the summer of 2000 separating these monitors from the overburden groundwater plume.
(2) On the field note, COC and lab report, this well was labelled as P1-90 instead of P1-91 in May 2018.
(3) Labeled as G1-92 instead of G13-92 in May 2018.

2.3 Surface Water Monitoring

The surface water monitoring sessions were conducted during the spring (April 30, 2018), summer (August 20, 2018) and fall (November 5-6, 2018). The surface water monitoring program included the collection of surface water samples for subsequent chemical analysis for routine and surveillance parameters. The routine parameters included chloride, hardness, sodium, ammonia and unionized ammonia, iron, manganese, boron, total phosphorus, alkalinity, DOC and TDS. Surveillance parameters included all of the routine parameters plus calcium, magnesium, potassium, aluminum, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, silicon, silver, strontium, sulphur, thallium, titanium, vanadium, zinc, BOD, nitrite, nitrate, sulphate, TKN, COD and phenols.

The temperature, pH, conductivity and dissolved oxygen content of the surface water samples were measured in the field at the time of sample collection. Evidence of beaver activities was again noted in 2018, notably near GS-12. Debris obstructing the culvert on the east side of the pond, south of G39-07, were removed in 2018. The culvert should be inspected as part of the annual surface water program to ensure that it is operational

In the spring 2018, a breach in the pond near GS-15 was observed. The breach was repaired in the fall of 2018.

The start of a leachate breakout in the ditch near P7-91 was reported in September 2017 and in 2018. In addition, the surface water vegetation from that area (i.e., at S3) was showing rusty staining during the 2018 sampling. The City reported applying final cover in the northern portion of the site in 2017 (see 2017 Annual Operation Report). It is recommended to inspect that area again in 2019 to determine if additional maintenance is required.

All surface water samples were placed in coolers with ice packs until they were delivered to the private analytical laboratory. A detailed description of the surface water sampling protocol is presented in **Appendix E**. All laboratory chemical and physical analyses on groundwater samples were completed by Caduceon Environmental Laboratories in Ottawa, Ontario. Laboratory reports of analysis are presented in **Appendix F**. The 2018 surface water program is presented in **Table 3** and the historical concentrations up to 2018 are presented in **Appendix I**.

Table 3: 2018 Surface Water Program

SW ID	Inorganic Package	April -18	Aug - 18	Nov -18	UTM Easting (Zone 18)	UTM Northing (Zone 18)
S1	Routine	√	√	√	486827	5034474
S2	Surveillance	√	√	√	486791	5034716
S3	Surveillance	√	Dry	Dry	-	-
GS6	Surveillance	√	√	√	486712	5034186
GS8*	Surveillance	√	√	√	-	-
GS11	Surveillance	√	√	√	487240	5034686
GS12	Surveillance	√	√	√	487272	5034684
GS15	Surveillance	√	√	√	487253	5034871
GS17	Surveillance	√	√	√	486819	5034427
GS20	Routine	√	√	√	487601	5034883
GS21	Routine	√ (Dup GS22)	√ (Dup GS22)	√ (Dup GS22)	487517	5034532
Field Blank	Routine or Surveillance	--	--	--	--	--

*Labelled as SW#8 on lab report.

Details of the surface water features in the vicinity of the site and the associated surface water monitoring stations are included in **Table 4**. The table also presents the discharged measured during the 2018 monitoring program. Showers were reported on the days leading to the spring sampling and prior to and during the fall sampling events. The days leading to the summer event were mostly sunny.

Table 4: Surface Water Features and Flows in 2018

Surface Water Feature	Type of Surface Water	Drainage Pattern / Outlet	Staff Gauge Location	Sampling Location	Flow April 2018 L/sec	Flow Aug 2018 L/sec	Flow Nov 2018 L/sec
Western Stream	Perennial	Flows north then east toward Cobbs Lake Creek and the South Nation River	N/A	GS6	43.6	2.4	18.6
				S1	80.5	3.4	28.0
				S2	104.4	2.9	31.2
				GS8	118.5	2.5	30.8
Northern periphery	Surface run-offs (man-made)	Flows north then west towards the western stream	N/A	S3	0.2	Dry	Dry
Western Ditch	Perennial	Flows east and discharges to Western Stream	N/A	GS17	44	1.1	8.8
On-Site Pond	Perennial (Man-Made)	No outlet	South End; Staff Gauge #3	GS11	1.1	0.6	0.7
				GS12	No flow	No flow	No flow
				GS15	No Flow	No Flow	No Flow
Former Snow Stockpile	Surface run-offs (man-made)	Flows north then east toward Cobbs Lake Creek	N/A	GS20	66	5.8	42.1
			N/A	GS21	62.9	4.4	33.8

2.3.1 Staff Gauges in the On-Site Pond

Staff Gauge #3 was installed in 2006 near the south end of the On-Site Pond (**Figure 2**) to replace Staff Gauges #1 and #2, which were under water. Staff Gauge #3 was replaced in 2008 but could not be located in recent sampling events. As a result, a new Staff Gauge #3 was installed on May 1, 2017. The reading after installation indicated a water level in the pond of 404 mm. In September and November 2017, the Gauge readings were 470 mm and 235 mm, respectively. In 2018, the staff gauge was destroyed again because it had been installed in irregular flood conditions. It was reinstated again in the fall of 2018 and the water level at that time was 49.922 masl for a corresponding gage reading of 0.2 m.

2.4 Gas Monitoring

Monitoring wells were monitored for methane gas during the spring and summer groundwater monitoring program. The gas was monitored in the riser or the protective casing of the monitoring wells using a head held detector. All on-site buildings are recommended to be included during future monitoring events.

2.5 Data Quality

The quality of the laboratory data used in this report (i.e., groundwater and surface water quality results) was evaluated based on laboratory quality assurance/quality control (QA/QC) results, field duplicate results and trip blanks results.

All laboratory chemical and physical analyses on groundwater and surface water samples were performed by Caduceon Environmental Laboratories in Ottawa, Ontario, which is accredited to ISO/IEC 17025:2005 (E), General requirements for the competence of testing and calibration laboratories. The laboratory performs internal QA/QC checks including matrix spikes, spiked blanks, method blanks and laboratory duplicates.

The trip blank results are presented in **Appendix H-2**. The trip blanks were analysed for VOCs and all results were below the detection limit indicating that the samples were not compromised.

The QA/QC program also included duplicate groundwater samples (three during the spring and one during the summer monitoring sessions) and surface water samples (one during each of the spring, summer and fall monitoring sessions). The relative percent differences (RPDs) were calculated when detected concentrations in both samples were greater than five (5) times the laboratory Method Detection Limit (MDL) (see **Appendix H** and **I**). Most RPD were within general industry standards (<50% for a single parameter and <20-25% on average) and all average RPDs were below 25%, which suggests that groundwater and surface water sample handling and analytical protocols were acceptable, and that analytical results were reproducible. The highest RPDs in groundwater were found at G12-92 for TKN (50%) and copper (229%), and at G27-97 for iron (27%) in the spring 2018. The highest RPDs in surface water were found at G21 for manganese (26%) and iron (28%) in the spring and fall 2018, respectively. These results are expected to be associated with field variability as opposed to sampling or laboratory biases. Accordingly, both surface water and groundwater results are considered representative of site conditions.

The quality of the field data used in this report was ensured by using calibrated equipment. As discussed in the description of groundwater and surface water sampling protocols (**Appendix E**), the field equipment used to measure temperature, pH, conductivity and dissolved oxygen was calibrated each day prior to use.

Based on the laboratory and field QA/QC protocols, the 2018 laboratory and field data presented in this report are determined to be of acceptable quality and reliable for use.

3 PHYSICAL SETTING

3.1 Hydrostratigraphic Units

The overburden geological conditions in the vicinity of the landfill site can be broadly divided into three layers: a discontinuous surficial granular layer comprising topsoil, silt, silty sand, sandy silt and sand (0 to 5.9m thick); a silty clay layer (7.8 to 12.1m thick); and a glacial till layer (2.4 to 4.1m thick). The bedrock surface exists at about 17 to 26m in depth and consists of dark grey shale. Based on its low hydraulic conductivity, the silty clay layer was interpreted as a confining layer that could restrict most groundwater flow from the landfill to migration within the surficial granular layer. As a result, the current groundwater

monitoring program is focused on monitoring wells screened in the granular layer, with selected monitoring wells screened in the silty clay. Toward the eastern property boundary, the granular layer pinches out where peat (0.6 to 2.1m) overlies the silty clay. The monitoring well screen position with respect to the difference geological units is presented in **Appendix G-1**.

A hydrostratigraphic cross-section through the site is presented as **Figure 3**. Further details on the physical hydrogeological setting of the landfill site are described in the report on hydrogeological and geotechnical design considerations for the landfill expansion (Golder Associates, 2000).

3.2 Water Table Elevations and Hydraulic Gradients

The recorded water level data from 2018 is presented in **Appendix G, Table G-2**. Groundwater elevations and the inferred water table contours for the upper overburden units (sand and silty clay) in the spring and summer 2018 are presented on **Figures 4** and **5**, respectively.

The horizontal groundwater flow direction within the shallow overburden is interpreted to be primarily toward the east/northeast. As discussed in previous reports, there appears to be a groundwater divide which traverses the central part of the landfill site. Based on the 2018 groundwater elevation data and historical water levels, the groundwater divide appears to be located in the area of monitoring wells G36-01, G37-01, G38-03 and G20-92 (near the fill area for the Interim Expansion period and the historical snow storage area as shown on **Figures 4** and **5**). To the west of this divide, groundwater appears to flow towards the west. The interpreted groundwater flow directions in 2018 are consistent with historical data. A stronger horizontal gradient is observed on the west side of the pond. The groundwater elevations around the pond are generally similar at around 50-51 masl, with the exception of monitoring well G28-97 which continues to show higher elevation at approximately 53 masl and was left out of the contouring of **Figures 4** and **5**. Well G15-92 was also left out of the groundwater flow interpretation since it continues to show levels that are 2m or more below the levels measured in the adjacent wells. Elevation outliers could be the results of the variation in well constructions and vertical screen placement. These two wells might also benefit from being redeveloped to ensure that they continue to be representative of the groundwater conditions.

As reported previously, the groundwater elevations were higher in the spring at all locations except at G39-07, G9C-92 and G15-92. The elevation differences at G15-92 and G39-07 is less than 8 mm whereas it is 1.01 m at G9C-92. Higher elevations during the summer season of the order of 1m was also observed at G9-92 last year. Well G9-92 is adjacent to the cut-off wall which might be delaying the infiltration of the spring recharge, keeping the summer levels relatively higher in that area than elsewhere on site. The contouring this year on **Figure 4** and **5** illustrate the restricting impact on the groundwater flow.

Based on groundwater elevations in 2018, horizontal hydraulic gradients ranged from 0.009 on the eastern part of the site (between G40-07 to G42-10; spring elevation 49.24 and 47.41 masl, respectively over 210 m) to 0.07 immediately upgradient of the On-Site Pond (between G13-92 and G33-98; spring elevation 53.24 and 49.30 masl, respectively over 60 m). These are in the same order of magnitude as previously reported.

Based on historical water level data, horizontal flow appears to dominate in the sand unit as shown by similar groundwater elevations measured between the B (upper level) and A (lower level) screen elevations of P5-91 (e.g., 57.06 and 57.02 masl in April 2018, A and B respectively).

Monitoring wells G8-92 and G9-92 have three ports screened at different elevations in the upper sand and silt units. In 2018, a downward gradient from port C to ports B and A is present at G8-92 during both the spring and summer programs. This suggest groundwater infiltration in the northwest area of the site, from the sand to the silt unit. Near the cut-off wall at G9-92, the vertical gradient are variables. In the spring, the indicate upward flow from the deep port A to the shallow port C whereas in the summer, flow appears to be converging to the mid port B.

Monitoring wells G31-98, G32-98, and G33-98 are multilevel wells with screens located in the deeper glacial till unit and bedrock shale interface. As reported in 2016, the groundwater elevations for these screens are generally very similar (i.e., in general less than 5mm head difference). This suggests that the two units are hydraulically connected and the predominance of horizontal flow

3.3 Horizontal Hydraulic Conductivity

Rising-head tests were previously carried out to estimate the horizontal hydraulic conductivity of the geological units present at the site (Golder Associates, 2000). The range and geometric mean of the horizontal hydraulic conductivity estimates were:

- For the surficial granular layer, a range of 1.5×10^{-6} metres per second (m/s) to 5.6×10^{-5} m/s, and a geometric mean of 8.6×10^{-6} m/s based on fourteen horizontal hydraulic conductivity estimates;
- For the weathered crust of the silty clay layer, a range of 1.1×10^{-8} m/s to 5.8×10^{-8} m/s based on two horizontal hydraulic conductivity estimates;
- For the silty clay, a range of 3.5×10^{-8} m/s to 5.2×10^{-10} m/s, and a geometric mean of 4.0×10^{-9} m/s based on five horizontal hydraulic conductivity estimates;
- For the glacial till, a range of 8.0×10^{-5} m/s to 1.1×10^{-6} m/s based on two horizontal hydraulic conductivity estimates; and
- For the shale bedrock, a range of 1.1×10^{-5} m/s to 2.2×10^{-7} m/s, and a geometric mean of 2.2×10^{-6} m/s based on three horizontal hydraulic conductivity estimates.

3.4 Groundwater Flow Velocity

The range linear groundwater velocity, v, is calculated using the equation:

$$V = Ki / n$$

where v = average linear groundwater velocity in units of length of time
n = dimensionless formation porosity
K = horizontal hydraulic conductivity in units of length per time
i = dimensions horizontal hydraulic gradient

For unconsolidated deposits such as silts and sands, typical porosity values range from 25 to 50 percent (Freeze and Cherry, 1979). An average porosity of 35 percent for the surficial granular layer was assumed to determine the average liner groundwater velocities in the vicinity of the landfill site.

Using the geometric mean horizontal hydraulic conductivity value for the sand unit (8.6 x 10^{-6} m/s) and the range of horizontal gradients presented above (0.007 to 0.07), the linear horizontal groundwater velocity within the sand unit across the site in 2017 ranged from approximately 5 to 54 m per year and was within the range of 2 to 62 metres per year previously reported.

3.5 Surface Water Conditions

Local surface water drainage is to the north by way of a stream on the west side of the site and a ditch on the southeast side of the site. The ditch was realigned in 2009 to flow on the south and east (as opposed to west and north) sides of the former snow storage area, within the property boundaries. The ditch and stream converge north of the site and flow eastward into Cobbs Lake Creek approximately 1.7 km downstream. Cobbs Lake Creek flows south/southeast to the South Nation River, approximately 10.3 km downstream. There is no surface water outlet from the on-site pond but there are interactions between the pond and the groundwater.

In 2018, water was present is sufficient amount for sampling at all locations except for the newly reinstated S3 location which was dry during the summer and fall events. Unless dry, flow continued to be observed in 2018 at all sampling locations except at the pond locations (GS12 and GS15). The surface water flow rates ranged from 0.6 to 118.5 L/sec.

The flow rates in 2018 are generally between the rates measured in 2016 and 2017. The flow rates in 2018 are highest in the spring. The second highest rates are found in the fall and the rates are lowest in the summer. This pattern is consistent with the relative rates of 2017. The highest rates are found in the western stream at S2 and GS8 in the spring 2018, and in the eastern ditch at GS20 and GS2 in the summer and fall 2018.

Beaver activities were first reported at the site in November 2017 and continue to be reported in 2018, especially in the vicinity of GS12. The presence of beavers does not appear to be having any net (positive or negative) effect on the drainage patterns or the size and shape of the pond. Beaver activities have also been noticed near the culvert on the east side of the pond. It is recommended to inspect the culvert as part of the surface water monitoring program to ensure that it remains unblocked so that the drainage continues to not be affected by beaver activities.

4 ENVIRONMENTAL RESULTS

4.1 Landfill Gas Monitoring Results

The potential movement of landfill gas toward on-site buildings has been evaluated at the site in previous programs by monitoring combustible gas at G17-92. Between 2002 and 2015, the combustible gas readings at that location have fluctuated between 0 to 160 ppm. Combustible gas was not detected at G17-92 in all 2016, 2017, and 2018 monitoring events. The wells that presented combustible gas detections in 2017 or 2018 are presented in **Table 5**. In 2018, combustible gas continues to be detected in risers of the following wells G14-92, G31-98S/D and G32B-98 at 4% to >100% lower explosive limit (LEL). Between 2016 and 2018, the highest combustible gas levels continue to be detected at G31-98S and G32B-98, located to the east and west of the waste mound, respectively. The combustible gas levels in 2018 at

the other locations are similar to those measured in 2017 with the exception of G15-92 which shows no detection in 2018.

Table 5: Detection of Combustible Gas 2016-2018

Monitoring Well	2016 Results	2017 Results	April 2018	August 2018
G14-92	100% LEL	0%-4% LEL	0% LEL	6% LEL
G15-92	2%-4% LEL	0%-9% LEL	0% LEL	0% LEL
G31-98S	100% LEL	>100% LEL	>100% LEL	>100% LEL
G31-98D	0%-2% LEL	0.06%-3% LEL	4% LEL	0% LEL
G32B-98	54%-61% LEL	0.6%-58% LEL	>100% LEL	32% LEL

4.2 Groundwater Quality

4.2.1 Leachate Groundwater Plume

The distribution of leachate impacts, based on a multi-parameters evaluation, is shown on **Figure 6, on Table 6,** on **Chart 1** and on the first table of **Appendix H-1**.

In 2018, wells P5B-91, P1-91 and P6-91 continue to be the most impacted by leachate with elevated concentrations of several leachate indicators such as chloride, DOC, hardness, TDS, boron, iron, manganese, and sodium. In addition to inorganic parameters, these wells were analyzed for VOCs in 2018. A few VOCs parameters (i.e., 1,1-dichloroethane, benzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,4-Dichlorobenzene, acetone, chlorobenzene, vinyl chloride, methyl tert-butyl ether, methyl ethyl ketone, and/or xylenes) were detected but all levels were below the Ontario Drinking Water Quality (ODWQ) guidelines.

Table 6 presents a summary of the average concentrations associated with the most impacted wells (leachate impacted) and associated with the background well (G26-94). The table also presents the wells that are considered to be only mildly impacted by leachate and the wells that are considered moderately impacted, based on the relative concentrations of the leachate indicators to background.

This breakdown illustrates that the leachate indicator concentrations decrease along the flow path, on both side of the groundwater divide to the east, south and southwest of the waste mound. Monitoring wells showing the most evidence of leachate impacts are screened in the upper sand unit (P5B-91, P1-91 and P6-91). Monitoring wells located to the west, north and northwest of the site are generally less impacted.

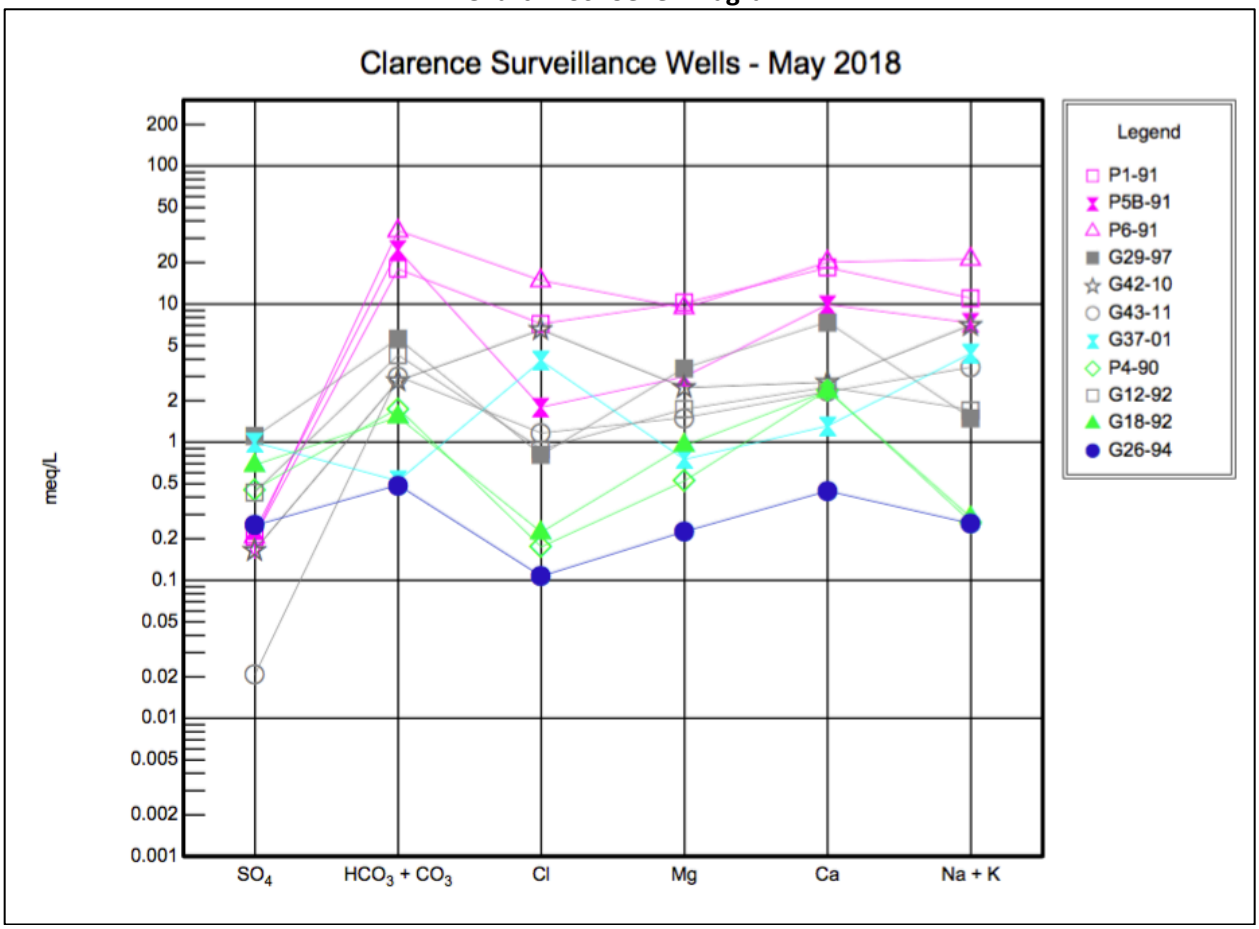
Table 6: 2018 Average Groundwater Concentrations and Leachate Impacts

2018 Average Concentrations (mg/L)	Leachate Impacted (1)	Moderately Impacted (1)	Mildly Impacted (1)	Background
Wells	P1-91, P5B-91, P6-91	G13-92, G38-03, G29-97, G36-01, G37-01, G20-92, G12-92, G17-92, G31A-98, G40-07, G28-97, G39-07, G27-97, G42-10, G43-11	G8C-92,P2-90, P4-90, G18-92	G26-94
Chloride	261.2	73.8	5.9	3.5
Hardness	1145.0	305.0	179.3	28.5
Phosphorous	3.7	3.5 (2.6)(2)	2.3	2.6
TDS	2066.7	500.4	213.3	47.5
Boron	2.4	0.477	0.083	0.011
Iron	28.1	4.0	0.039	0.007
Manganese	7.0	1.0	0.016	0.029

1. Well G21-94 is excluded from the average calculations because of its out of range seasonal variations that have been associated with roadside activities. It is identified as "moderately impacted" on **Figure 6** to reflect the concentrations measured at this location which ranged from mildly impacted to leachate impacted.
2. Average when excluding G43-11 phosphorous results.

The Schoeller diagram (**Chart 1**) presents the ionic composition of the groundwater in different sectors of the plume. The leachate impacted wells are showed in pink and occupy the upper portion of the graph whereas the background well is shown in dark blue and occupies the lower portion. In between, the mildly impacted wells are shown in green and the moderately impacted wells are shown in grey. Well G37-01 spans across all water types and was attributed its own groundwater category. This well is interpreted to be under the influence of both the landfill and the former snow disposal activity.

Chart 1: Schoeller Diagram



The interpretation of impacts (**Figure 6)** is similar to the previous years, except for G13-92, G8-92, and G12-92 located on the north, west and south boundaries, respectively. Based on the Schoeller diagram (**Chart 1**) and the average concentrations (**Table 6**), wells G13-92 and G12-92 were moved to the moderately impacted category (from the mildly impacted category in 2016-2017) and well G8-92 was moved to the mildly impacted category (from the moderately impacted category in 2016-2017). It is noted that this change in category is not associated with a significant increase or decrease in concentrations.

In 2018, the concentrations continue to generally decrease along the flow path in all directions. Phosphorous continues to be detected at higher concentrations in peripheral wells located in proximity to agricultural fields (e.g., G43-11 at 28.5 mg/L in August 2018) or in proximity to the western stream (e.g., G29-97 at 16.5 mg/L in August 2018) compared to the leachate impacted wells average concentration (i.e., 3.7 mg/L, see **Table 6**). Phosphorous shows no consistent pattern along the leachate flow path and the elevated concentrations are interpreted to be indicative of ambient deposition from agricultural activities.

Concentrations of chloride at monitoring wells G42-10 and G37-01, both located near former snow disposal areas, are not following the decreasing concentration trend normally observed for this tracer. Concentrations at these locations are elevated above their nearest upgradient wells, screened in the same

unit, indicating that the former snow disposal activities still act as a point source of contamination. For G42-10, the summer chloride concentration is 226 mg/L whereas, upgradient, the chloride concentration is 56.6 mg/L and 93.4 mg/L at G40-07 and G39-07, respectively. At G37-01, the spring chloride concentrations is 138 mg/L and it is 25.3 mg/L at the upgradient well G20-92.

Well G21-94 located dowgradient of the vertical cut-off wall shows mild to moderate impacts in the spring and significant impacts in the summer. The variation between the spring and summer results have been observed previously. In 2018, the chloride summer concentration at G21-94 was reported to be 1070 mg/L whereas it was only 37 mg/L in the spring. This chloride concentration is significantly higher than the historical concentrations measured upgradient of the wall, at the leachate representative wells. In addition, seasonal differences are not significant upgradient of the wall. Well G17-92 located immediately downgradient of the wall is showing only moderate impacts with chloride concentrations in 2018 ranging from 4.7-12.9 mg/L. Based on the above, it is inferred that the cut-off wall is successful in mitigating downgradient waste disposal site related impact. The elevated concentrations at G21-94 have been attributed to salt/sands from Lalonde road maintenance and traffic in and out of the Clarence WDS. Well G12-92, located further downgradient, is showing more stable seasonable concentrations that fall within the moderate range of impacts and that are higher than the ones measured at G17-92 (e.g., summer chloride concentrations are 12.9 mg/L and 36.8 mg/L at G17-92 and G12-92, respectively). Accordingly, the impacts at G12-92 is also partly attributed to the roadside activities.

In 2017, wells G31A-98 and G31B-98 were sampled to verify the water quality in the bedrock shale and overburden glacial till unit, respectively. The results indicated that concentrations in both units were relatively similar and in 2018, only G31A-98 was sampled. The 2018 results from G31A-98 continue to indicate moderate impacts to the bedrock unit.

Background concentrations at the site have been represented in previous studies by P4-90, P2-90, G11-92/G39-07. In 2018, P4-90 and P2-90 continue to be interpreted as not being significantly impacted by leachate, whereas G39-07 continues to show evidence of being under the influence of the WDS and/or snow stockpile area. Well G26-94 located to the northwest of the waste mound presents no historical evidence of impact and continues to be recommended for use as representative of background at the site. It is screened in the sand unit upgradient of the waste mound and water is expected to flow east from G26-94 through the northern portion of the site, which is not significantly impacted by the leachate plume.

4.2.2 Trends in Groundwater Quality

Historical groundwater concentrations are presented on **Graphs J-1** to **J-9** in **Appendix J** for selected monitoring wells. For the most part, concentrations are relatively stable since at least 2013 indicating a fairly steady leachate plume. Exceptions include increasing trends for:

- ammonia and sodium at P6-91,
- chemical oxygen demand (COD) at G29-97,
- chloride, COD and phosphorous at G43-11,
- chloride at G12-92, and
- phosphorous and chloride at G18-92.

A decreasing trend for chloride is observed at G42-10 and attributed to the discontinuing of the snow disposal in that area. A decreasing trend is also observed for phosphorous at G26-94.

The phosphorous concentrations at G43-11 (28.5 mg/L in August 2018) does not correlate with the upgradient phosphorous concentrations (0.73 mg/L at G39-07 in August 2018). Accordingly, the increase in phosphorous at G43-11 is attributed to the nearby agricultural activities rather than landfill leachate migration. The COD concentrations at G43-11 in the summer 2018 (i.e., 1100 mg/L) is also significantly above the highest COD concentrations at the leachate impacted wells (e.g., 490 mg/L at P6-91 in 2018) suggesting that a source other than the landfill is contributing to the increase in COD at G43-11. It is recommended to analyse the ugradient well G39-07 for the surveillance parameters in 2019 in order to gain a better understanding of the COD plume and its source (s).

As reported in previous annual reports, the predictive modelling completed as part of the landfill site expansion (Golder Associated, 2000) predicted that groundwater concentrations of chloride in year 2015 upgradient and downgradient of the on-site pond and at the eastern site boundary would be approximately 150, 35 and 25 mg/L, respectively, assuming a five-fold dilution in the pond. In 2016 and 2017, the concentrations measured at the site were at or below the predicted concentrations. In 2018, the concentrations upgradient of the pond continue to be below the predicted value (G27-97; 136 mg/L in August 2018 vs modeled concentration of 150 mg/L) whereas the downgradient concentrations have exceeded the predicted value (G39-07; 93.4 mg/L in August 2018 vs modeled concentration of 35 mg/L and G43-11; 35.8 mg/L in August 2018 vs modeled concentration of 25 mg/L). The concentrations in 2018 continue to be above the predicted value at G42-10 (e.g., 226 mg/L in August 2018 vs 25 mg/L). It is suspected that the increase of chloride above the predictive model along the eastern boundary is in part due to the former snow disposal site.

4.2.3 Ontario Drinking Water Quality Guidelines Evaluation

Table 7 presents a summary of the exceedances of the ODWQ guidelines at the boundary wells in comparison with the exceedances detected at the background and leachate wells. With the exception of sporadically high manganese concentrations, the background well (G26-94) presents no exceedances of the ODWQ Guidelines. The leachate representative well (P6-91) presents the most exceedances (11) of ODWQ guideline values. All other boundary locations present one or more exceedances of ODWQ aesthetic objectives of alkalinity, chloride, DOC, hardness, TDS, iron, and/or manganese. Health related exceedances are limited to aluminum on the east and northeast boundaries and aluminum and boron at the leachate indicator well. The chromium and sodium exceedance reported last year at selected boundary wells were not reproduced in 2018.

4.2.4 Domestic Water Wells

The MOECC Water Well Information System (WWIS) was consulted to obtain water well records within 500 m of the site boundary (Golder Associated, 2015 Annual Monitoring Report). Six wells are reported to be within this area, excluding those wells with a location accuracy of greater than 300 m. Well ID 5605742, 5605743, 5600200 and 5603990 are water supply wells completed in bedrock with at least 18 m casing. Given the presence of at least 7 m of silty clay above the bedrock in each of these well records, the wells were not considered vulnerable to landfill leachate impacts.

Well ID 5602076 is a water supply well completed in the overburden (sand and gravel) and appears to correspond to the well on the former Brazeau property at the southeast corner of the site. Finally, Well ID 7039373 appears to have been drilled at the Brazeau Sanitation property in 2006, but there is no other information in the WWIS on the intended use, depth of construction of the well.

From 2002 to 2005, as part of the City of Clarence-Rockland compensation policy regarding the expansion of the landfill, groundwater sampling was carried out at the domestic well on the property adjacent to the southeastern portion of the landfill site (the Brazeau well). Golder Associates was informed that the Brazeau property was purchased by the City of Clarence-Rockland in early 2006, and the private residence located on the property was demolished in 2008.

The 2017 and 2018 annual monitoring results indicate that well G29-97 screened in the sandy unit and located along the western edge of the site is moderately impacted by leachate. Leachate also appears to be present in GS17 where elevated concentrations of chloride, boron and iron were detected in the summer 2018. A groundwater flow direction towards the west is also possible based on the interpretation of groundwater elevation. This suggests that leachate might be migrating towards the west.

It is estimated, based on the most recent Google Earth image, that there are four residences along the east side of Champlain Road that could be sampled. Based on the leachate distribution at the site, the presence of clay, the main groundwater flow directions, and the distance to the houses, it is not excepted that these domestic wells would be impacted by leachate. However, as due diligence and to obtain baseline conditions, it is recommended to sample the nearest residential wells to the west of the site at least once. The sample should be collected before the residential water treatment system, if present and analysed for the surveillance parameters.

Table 7: 2018 ODWQ Guideline Exceedances at Selected Wells

	ODWQ Guidelines (mg/L)		Leachate (P6-91)	Background (G26-94)	West Boundary (G29-97)	South Boundary (G37-01)	Southeast Boundary (G12-92)	East Boundary (G42-10)	North Boundary (G18-92)	Northeast Boundary (G43-11)
Alkalinity	Aesthetic	500	X	--	--	--	--	--	--	--
Chloride	Aesthetic	250	X	--	--	X	--	--	--	--
DOC	Aesthetic	5	X	--	X	--	--	X	X	X
Hardness	Health	100	X	--	X	X	X	X	X	X
Nitrate	Health	10	--	--	--	--	--	--	--	--
Nitrite	Health	1	--	--	--	--	--	--	--	--
Sulphate	Aesthetic	500	--	--	--	--	--	--	--	--
TDS	Aesthetic	500	X	--	X	X	--	X	--	--
Aluminum	Health	0.1	X	--	--	--	--	X	--	X
Barium	Health	1	--	--	--	--	--	--	--	--
Boron	Health	5	X	--	--	--	--	--	--	--
Cadmium	Health	0.005	--	--	--	--	--	--	--	--
Chromium	Health	0.05	--	--	--	--	--	--	--	--
Copper	Aesthetic	1	--	--	--	--	--	--	--	--
Iron	Aesthetic	0.3	X	--	--	--	--	X	--	X
Lead	Health	0.01	--	--	--	--	--	--	--	--
Manganese	Aesthetic	0.05	X	X	X	--	--	X	X	X
Mercury	Health	0.001	--	--	--	--	--	--	--	--
Sodium	Aesthetic	200	X	--	--	--	--	--	--	--
Zinc	Aesthetic	5	--	--	--	--	--	--	--	--

X *Indicates 2018 concentration (s) exceeded guideline*
-- *Indicates 2018 concentration (s) below guideline*

4.3 Surface Water Quality

The surface water quality near the landfill site was previously subdivided into three groups which are (i) the stream to the west of the site and the ditch which discharges into the stream, (ii) the On-Site Pond and (iii) the ditch in the southeastern portion of the site, east of the on-site pond. In 2009, the southeastern ditch was realigned and it stopped being sampled. Sampling of the southeast ditch was reinstated in 2017 at GS20 and GS21 following a 2016 recommendation from the MOECC technical surface water specialist. In 2018, S3 located along the northern toe of waste mound was reinstated along with GS8 located downstream of the western ditch to evaluate surface water quality north of the site.

4.3.1 Leachate in Surface Water

The surface water results are presented in **Appendix I**. The distribution of impacts is represented on **Appendix I-1**.

Station GS6 is located on the south site of Lalonde Road, in the upstream section of the western stream. Station GS6 presents the lowest concentrations and is considered representative of background conditions.

The on-site pond locations (GS11, GS12 and GS15) continue to show the highest concentrations in 2018. The concentrations in the on-site pond are also significantly higher than background. The pond is regulated under ECA No. 3362-6D7PL4 and acts as natural attenuation facility for stormwater runoff and leachate-impacted groundwater at the site. The concentrations of leachate indicators in the pond are lower than ones measured at leachate groundwater well P6-91 indicating an attenuation of contaminants in the pond as designed.

The western stream, eastern ditch and northern toe are interpreted this year as being slightly impacted. The leachate indicators at these locations are generally present at concentrations above the background levels but below the on-site pond levels.

In the western stream (GS17, S1, S2 and GS8), chloride, DOC, and iron are elevated above background, suggesting a discharge of groundwater impacted leachate in that area. The leachate indicators within the western stream are generally highest at GS17 (upstream) and lowest at GS8 (downstream). For example, chloride decreases along the flow direction from 147 mg/L at GS17, to 54 mg/L at S1, and to 49.1 mg/L at GS8 in August 2018. Station S2, located between S1 and GS8 has concentrations that are similar to GS8 (for example, 48.9 mg/L at S2 and 49.1 mg/L GS8 in August 2018). This suggests that the influx of leachate to the stream is highest in the southern portion but also present in the northern portion (otherwise GS8 would be expected to show attenuated concentrations as water flows downstream).

At the northern toe (S3), iron is noted above background, consistent with the leachate breakout and the rusty staining noted in that area in September 2017 and April 2018, respectively. This location was dry during the summer and fall events and was therefore only sampled once in 2018 (in the spring). The City reported applying the final cover in that area in 2017 (see 2017 Annual Operation Report issued by Jp2g in March 2018) and it is therefore expected that leachate input to surface water station GS8 and S3 will decrease in the future. Surface water stations GS8 and S3 should be monitor again next year to verify that

conditions have improved following the capping work. In addition, the ditch in that area should be inspected to determine if additional maintenance work is required.

The eastern ditch stations were reinstated in 2017 as surveillance stations in order to identify potential leachate input to the Rozon-Seguin Municipal Drain and to determine the need for additional surface water stations up and downstream of the Drain (see **Appendix C**, MOECC, 2016 letter for more details). The concentrations are generally higher at the downgradient end of the ditch (GS20), indicating that the ditch pickups leachate as it flows around the former snow disposal site. The main elevated leachate indicator is chloride, consistent with the former presence of the snow dump in that area. Sampling of GS20 and GS21 should continue to monitor the recovery of the site now that the snow disposal activities have been discontinued. No other sampling location along the Drain is recommended at this time.

4.3.2 Trends in Surface Water

Historical concentrations are shown on the trend graphs in **Appendix K** for surface water locations GS17 (**Graph K-1**), S1 (**Graph K-2**), GS11 (**Graph K-3**), GS15 (**Graph K-4**) and GS20 (**Graph K-5**) of the western ditch, of the western stream, of the west side of the on-site pond, of the east side of the on-site pond, and of the eastern ditch, respectively. The graphs present the concentrations of selected leachate indicators.

All graphs show a significant drop in 2016 because the reporting units changed from ug/L up to 2015 to mg/L onwards. Since 2016, the concentrations at GS17 and S1 have been relatively stable or decreasing. The concentrations at GS11 and GS15 increased until about 2006 and have since been fluctuating along the same average concentrations. Concentrations at GS20 in the downgradient end of the eastern ditch appear to be on a slight increasing trend, between 2017 and 2018, for phosphorous, chloride, TDS, hardness and alkalinity whereas iron appears to be decreasing over the same period. This could be a result of the flushing of the former snow disposal site delineated by the eastern ditch.

Surface water concentrations fluctuate between sampling events in 2018 with no common seasonal trends.

4.3.3 Water Quality Objectives Evaluation

Table 8 presents the parameters that exceeded the Ontario Provincial Water Quality Objectives (PWQO) at the surface water monitoring locations. All locations had two or more of the following parameters detected at concentrations above the PWQO: phosphorus, iron, cobalt, phenolics, aluminum, unionized ammonia, nitrite, copper, boron, zinc, field pH, and vanadium. The on-site pond at GS11 is the station showing the most exceedances with 9 parameters exceeding the PWQO. This station is also the one presenting the highest concentrations of leachate indicators. Exceedances are also found off-site at the upstream background location (GS6) and in the upstream western ditch location (GS17) indicating that the surface water entering the site is somewhat influence by sources of contamination other than the landfill (e.g., agricultural and roadside activities).

In 2016, the guideline values from the Canadian Water Quality Guidelines for freshwater (CWQG FW) and the British Columbia Water Quality Guidelines for freshwater (BC WQG FW) were added to the quality evaluation for nitrate, nitrite, chloride and sulphate as requested by the MOECC technical reviewer. Surface water location GS11 located in the on-site pond presented exceedances of the CWQG for chloride in 2016, 2017 and 2018. Nitrite was also in exceedance at that location in 2018. The hardness at this location continued in 2017 to exceed the range for which sulphate guideline values are provided under the BC WQG (i.e., >250 mg/L). The other locations did not present exceedances of these parameters.

Table 8: 2018 Surface Water PWQO Exceedances

	S1 Western Stream	GS8 Western Stream	GS6 Western Upstream	GS11 On-site pond (central)	GS12 On-site pond (central)	GS15 On-site pond (north sector)	GS17 Western ditch	GS21 Eastern Ditch Upstream	GS20 Eastern Ditch Downstream
Unionized ammonia	--	--	--	X	X	X	--	--	--
Chloride	--	--	--	X	--	--	--	--	--
Nitrite	--	--	--	X	--	--	--	--	--
Phosphorus	X	X	X	X	X	X	X	X	X
Aluminum dissolved	X	X	X	X	--	X	X		
Beryllium	--	--	--	--	--	--	--		
Boron	--	--	--	X	X	X	--	--	--
Cadmium	--	--	--	--	--	--	--		
Cobalt	--	--	--	X	--	--	X		
Copper	--	--	X	X	X	--	X		
Iron	X	X	X	X	--	--	X	X	X
Lead	--	--	--	--	--	--	--		
Mercury dissolved	--	--	--	--	--	--	--		
Molybdenum	--	--	--	--	--	--	--		
Nickel	--	--	--	--	--	--	--		
Selenium	--								
Silver	--	--	--	--	--	--	--		
Thallium	--	--	--	--	--	--	--		
Vanadium	--	--	--	--	--	--	X		
Zinc	--	--	X	--	--	--	X		
Phenolics	--	--	X	X	X	X	X	--	--
pH (field)	--	--	--	--	X	X	--	--	--

-- *Indicates concentration below the PWQO*

X *Indicates concentration exceeds the PWQO*

Blank indicates analytes not tested.

5 SITE COMPLIANCE

5.1 Groundwater Compliance

5.1.1 Reasonable Use Criteria

The "reasonable use" approach to protect groundwater quality was developed by the MOE to determine acceptable limits of contaminant discharge from Municipal WDS based on what the "reasonable use" of groundwater on adjacent properties is. The maximum concentration of a particular contaminant in groundwater, which is allowed to leave the WDS property, is termed the Reasonable Use Criteria (RUC). It is calculated based on the Ontario Drinking Water Quality Standards (ODWQS) and a representative background concentration for that particular parameter.

The permitted degradation factor is the amount of degradation between background and ODWQS values that is considered by the MOECC to have only a negligible effect on the use of the water. For drinking water use, as in the case of the WDS, non-health related parameters have a permitted degradation of 50% (0.5) while health related parameters have a permitted degradation of 25% (0.25). The equations used to derive the RUC are presented below.

Health Related:

$C_{allow} = P_b + (C_m - P_b) \times 25\%$

Non-Health Related:

$C_{allow} = P_b + (C_m - P_b) \times 50\%$

where:

C_{allow} = Maximum allowable concentration of parameter as per the RUC guidelines.

C_m = Maximum acceptable concentration (MAC) of parameter as per the ODWS/OG.

P_b = Chosen background value of parameter.

Based on previous study (Golder and Associates 2015 Monitoring Report), the compliance evaluation parameters at the site have been identified as chloride, sodium, DOC, TDS, boron, iron and manganese.

The groundwater technical review completed by the MOECC in 2006 previously flagged potential issues with the use of P4-90 as the background well for RUC calculations and Golder Associates has reported P2-90 and G11-92/G39-97 as being potentially impacted by leachate in previous annual reports. Accordingly, and as presented earlier in this report, background well G26-94 is believed to be a better indicator of background conditions at the site than previously used wells and was used for the 2017 and 2018 RUC calculations. **Graph J-2** shows that concentrations have been relatively stable at G26-94, making it suitable for the RUC calculations. As done previously by Golder Associates, the median background concentrations were derived from the entire historical concentrations data set. The results are presented in **Table 9**.

Table 9: 2018 RUC Calculations

Trigger Parameter	Median (Pb)	Permitted degradation (x)	Maximum Acceptable Concentration ($C_{M)}$	Maximum Allowable Concentration (C_{allow})
Chloride	3.2	0.5	250	127
DOC	2.1	0.5	5	3.6
TDS	48.15	0.5	500	274
Boron	0.009	0.25	5	1.3
Iron	0.0095	0.5	0.3	0.2
Manganese	0.006	0.5	0.05	0.03
Sodium	9.45	0.5	200	105

5.1.2 RUC Compliance

Table 10 presents the summary of the evaluation of the RUC compliance at the boundary wells. The table shows that there is non-compliance of two (2) or more trigger parameters at every boundary location. The type and amount of RUC non-compliance is similar to those observed in 2016 and 2017.

Table 10: 2018 RUC Compliance Evaluation

Trigger Parameter	RUC	Background (G26-94)	West Boundary (G29-97)	South Boundary (G37-01)	Southeast Boundary (G12-92)	Southeast Boundary (G17-92)	East Boundary (G42-10)	North Boundary (G18-92)	Northeast Boundary (G43-11)
Chloride	127	3.2-3.8	15.7-28.8	**138-335**	31.6-36.8	4.7-12.9	**226-231**	7.9-12	35.8-41.4
Dissolved Organic Carbon	3.6	2.3-2.4	**13.2-16.1**	0.6-1.8	2.2-2.4	**4-6.3**	**20.3-26.6**	2.4-**5.5**	**42-49.1**
Total Dissolved Solids	274	47-48	**590-594**	**343-623**	**303-310**	233-**328**	**614-698**	174-**336**	**346-410**
Boron, dissolved	1.3	0.009-0.012	0.074-0.075	0.008-0.009	0.022-0.03	0.009-0.031	0.162-0.298	0.107-0.26	0.294-0.419
Iron, dissolved	0.2	0.006-0.007	0.005-0.021	<0.005-0.005	<0.005	0.028-**1.26**	**2.78-5**	0.051-0.088	**1.53-3.19**
Manganese, dissolved	0.03	0.005-**0.052**	**3.52-3.83**	0.019-**0.033**	0.001-**0.033**	**0.106-0.201**	**0.772-0.824**	**0.044-0.059**	**0.172-0.257**
Sodium, dissolved	105	5.4-8.6	33.2-43.3	101-**106**	28.4-38.2	9.4-15	**160-170**	4.5-10.3	77.6-98.6

47.9: Indicates value exceeds the RUC

The reasonable use concept concentrations were exceeded for one or more trigger parameters in every direction except along the northwest corner, in the area selected as representative of the background groundwater concentrations (excluding the sporadic manganese concentrations at G26-94).

A recommendation to augment the CAZ to the west of the site was made in previous reports to assist with mitigating the impacts in that direction. The City is in the process of implementing this recommendation. In the other directions, it was determined in previous reports that additional mitigation measures were not required at this time because contingency measures are already in place (i.e., cut-off wall to the south, CAZ to the north and discontinuing of the snow disposal to the east).

Based on the 2018 results, the concentrations at G18-92 that are in exceedance of the RUC appear generally stable and the 140m attenuation zone available to the north is likely sufficient to contain these RUC exceedances. To verify this assumption, it is recommended to install a new compliance well on the northern CAZ boundary.

On the south boundary, the cut-off wall appears to be successful in mitigating downgradient waste disposal site related impact based on the difference in concentrations between the upgradient (P1-91 and P5B-91) and downgradient (G17-92) sides of the wall. The high seasonal variability at G21-94 suggests

that the roadside activities have a higher impact on the water quality in this area than the landfill leachate migration. Accordingly, the wall is considered an appropriate to address the leachate related non-compliance and no further mitigation measures are recommended for this area.

On the eastern side, a CAZ and attenuation pond are present. The 2018 results show a decrease in chloride concentrations at G42-10 suggesting an improvement in site conditions as a result of the end of the snow disposal activity. The 2018 results also indicate that a source other than the landfill (roadside and/or agricultural) might be contributing to the increase in concentrations at G43-11. In order to better understand the source of impacts in that area, it is recommended to test G39-07 in 2019 for the complete list of surveillance parameters. The roadside and agricultural sources might have a bigger impact than the landfill on the water quality in this area. Accordingly, further analysis is recommended prior to implementing additional mitigation measures.

The City should continue to apply interim and final cover as requested under the ECA to minimize leachate generation across the site.

5.2 Surface Water Compliance

5.2.1 Trigger Parameters and Concentrations

The surface water compliance evaluation parameters at the site have been established previously at the site as boron, iron, total phosphorus and unionized ammonia. The trigger concentrations are established based on the 75th percentile concentrations at the non-impacted station GS6 as shown in **Table 11**. The 75th percentile is calculated based on the entire historical dataset. The selected trigger concentration is the highest of either the 75th percentile or the PWQO. The trigger values have remained steady over the last annual monitoring programs of 2016, 2017 and 2018.

Table 11: 2018 Surface Water Trigger Parameters and Concentrations

Parameter (mg/L)	75th Percentile (GS6)	PWQO	2018 Trigger Concentrations
Ammonia, unionized (Field)	0.00133	0.02	>0.02
Phosphorus	0.08	0.03	>0.08
Boron	0.02	0.2	>0.2
Iron	1.5	0.3	>1.5

5.2.2 Surface Water Compliance

Table 12 shows the surface water compliance evaluation. Fort his evaluation, the peripheral stations were used.

Surface water impacted by leachate is represented by stations GS11 and GS15 collected from the on-site attenuation pond south and north side, respectively. The surface water flow on the western side of the site is represented by surface water stations GS17, S2, S3 and GS8. Surface water flow on the eastern side is represented by surface water station GS20.

Surface water station GS11 is the most impacted by leachate and shows elevated ammonia, boron and iron above the trigger concentrations. Ammonia and boron also exceed the trigger concentrations at GS15. Phosphorous is in compliance at both locations. The concentrations decrease away from the waste mound, between GS11 to GS15, except for phosphorous which present similar concentrations at both locations. The on-site pond is part of the attenuation mechanisms at the site and has no outlet. Accordingly, surface water contingency measures are not required for these exceedances.

The elevated phosphorous concentrations in the western and eastern ditches and stream are attributed to ambient deposition from agricultural practices and do not correlate with the leachate signature. **Table 12** shows that the phosphorous concentrations at both on-site pond locations are similar in value and are also one order of magnitude below the phosphorous values measured in the western and eastern ditches and stream. Accordingly, the western ditch is deemed in compliance at S2, where it exits the site, since there is no trigger exceedances other than phosphorous at this location.

North of the site, iron exceeded the trigger value at S3 and GS8 in the spring 2018. As mentioned previously, the final cap was applied in that area which should minimize leachate generation. Subsequent events (summer and fall 2018) showed either dry conditions (at S3) or the iron concentration below the trigger concentration (at GS8). Accordingly, this area is also deemed to be in compliance.

The eastern ditch presents exceedances of phosphorous and iron. There is no indication that this ditch is hydraulically connected to the groundwater leachate plume at the site. Accordingly, these exceedances are attributed to other sources such as the former snow dump, roadside activities and agricultural practices. The snow disposal activities have been discontinued since 2015 and no other mitigation measures is recommended at this time.

Table 12: 2018 Surface Water Compliance Evaluation

Parameter (mg/L)	2016 Trigger Concentrations	GS17 Western ditch (upstream of site)	S2 Western Stream (property limit)	GS8 Western Stream (northwest of site)	S3 Northern Mound (on-site)	GS11 On-site pond (south sector)	GS15 On-site pond (north sector)	GS20 Eastern ditch (property limit)
Ammonia, unionized (Field)	>0.02	<0.01	<0.01	<0.01	0.01	**0.05-1.39**	<0.01-**0.42**	<0.01
Phosphorus	>0.08	**0.18**-**0.23**	0.07-**0.12**	0.07-**0.16**	0.05	0.02-0.07	0.05-0.07	0.08-**0.23**
Boron	>0.2	0.013-0.185	0.012-0.042	0.011-0.046	0.037	**1.82-2.59**	**0.729-0.819**	0.052-0.085
Iron	>1.5	0.983-**2.14**	0.916-1.27	0.93-**1.8**	**2.59**	0.4-**1.69**	0.035-0.163	1.04-**5.75**

6 CONCLUSION AND CONTINGENCY MEASURES

In 2018, leachate impacts continue to be detected on the eastern side of the waste mound where wells present elevated concentrations of several leachate indicators such as chloride, total dissolved solids, boron, iron, hardness, manganese, sodium and dissolved organic carbon. A few volatile organic compounds were also detected at these locations but levels were below the ODWQ guidelines.

A decrease in leachate indicator concentrations is observed along the flow path, on both sides of the groundwater divide to the east, south and southwest of the waste mound with several wells showing moderate leachate impact. Monitoring wells located to the west, northwest and north of the site are generally less impacted. Monitoring wells showing the most evidence of leachate impacts are screened in the upper sand unit. Some leachate migration into the deeper silty clay and till units and into the shallow bedrock unit has also occurred.

The reasonable use concept concentrations were exceeded for one or more trigger parameters in every direction except along the northwest corner, in the area selected as representative of the background groundwater concentrations.

As mitigation measures for the west boundary, it is recommended to acquire additional land to extend the CAZ and also to sample the nearest residential wells. As mitigation measures for the east boundary, the snow disposal site should remain inactive and well G39-07 should be analyzed for the surveillance parameters to assist with understanding the source(s) of elevated concentrations in that area.

On the south boundary, the cut-off wall appears to be successful in mitigating downgradient waste disposal site related impact and no further mitigation measures are recommended. The non-compliance detection at this location appears to be related to salt/sands from Lalonde road maintenance and traffic in and out of the Clarence WDS. On the northern side, the trigger well has been interpreted has being only mildly impacted by leachate. Since the northern trigger well is located 140 m inward from the leachate attenuation zone northern boundary, additional mitigation measure in this area are also not warranted at this time. However, to verify this assumption, it is recommended to install a new monitoring well along the northern boundary.

The surface water trigger concentrations are exceeded for one or more parameter at each surface water station. The concentrations of leachate indicators in surface water are highest at the on-site pond, with the exception of phosphorous. The phosphorous exceedances have been attributed to agricultural practices. No contingency measures are recommended for the surface water at this time. The exceedances at the on-site pond are inherent to its design as a leachate attenuation pond. The exceedances in the western stream are either related to off-site sources, attenuated before leaving the site, or already addressed by the capping work that took place in 2017 in the northern area and the ban on snow disposal. However, it is recommended to inspect the north ditch area to confirm the absence of leachate breakouts.

7 MONITORING PROGRAM FOR 2019

The monitoring program at the WDS should continue in 2019 in the spring and summer for groundwater and in the spring, summer and fall for surface water. The following elements are recommended for the 2019 monitoring program. Monitoring locations are provided in **Figure 7.**

- Continue the discussion to acquire additional CAZ on the west side of the site.
- Install a new compliance well on the northern CAZ boundary to confirm that the RUC exceedances on that side are contained within the site boundaries.
- As due diligence and to obtain baseline conditions, it is recommended to sample the nearest residential wells to the west of the site at least once. The sample should be collected before the residential water treatment system, if present and analysed for the surveillance parameters.
- Monitoring well G39-07 should be analyzed for the surveillance parameters in 2019 to better understand the source(s) of the impacts along the eastern boundary.
- It is recommended in 2019 to verify the contouring of the land and the ditch in the area of P7-91 and S3 to determine if additional maintenance activities are required to minimize leachate in that area. Sampling of station S3 and GS8 should continue until it is confirmed that the area has been stabilized.
- The City should continue to apply interim and final cover as requested under the ECA to minimize leachate generation.
- Continue the groundwater surveillance monitoring program inclusive of the following wells along the boundaries of the site and the leading edges of the leachate plume:
  - South boundary (G37-01 and P5B-91);
  - Southeast boundary (G12-92);
  - east boundary (G42-10);
  - north boundary (G18-92);
  - northeast boundary (G43-11);
  - west boundary (G29-97), (P4-90);
  - background (G26-94);
  - leachate (P6-91 and P1-91);
  - eastern plume migration (G39-07); and
  - nearest residential wells (estimated to be 4 wells along the east side of Champlain Road).
- Continue testing for VOCs at the surveillance wells P1-91, P5B-91 and P6-91.
- Continue the routine monitoring program inclusive of the following wells, in order to evaluate the leachate migration at the site: G8-92, G38-03, P2-90, G36-01, G20-92, G21-94, G17-92, G31A-98, G28-97, G40-07, G27-97, G13-92.

- The following surveillance wells should be used as compliance points and for contingency measures trigger. These wells are located along the leading edges of the plume: G18-92 (or new monitoring well along the northern boundary if available), GS26-94, G29-97, G37-01, G12-92, G42-10, G43-11.

- Continue the surveillance monitoring program at surface water stations GS6, GS17, S2, GS15, GS11 and GS12. Continue the routine monitoring program at surface water S1, S3, GS8, GS20 and GS21.

- Collect a representative number of blind duplicates, trip and field blanks.

- Measure combustible gas levels in all headspace of monitoring well and in on-site buildings.

- The surface water flow measurements should continue to be reported in L/sec for consistency. Continue to request that the detection limits for surface water comply with the CWQG for nitrite, nitrate, and chloride.

- Monitoring wells G28-97 and G15-92 are showing groundwater elevations that diverge from the local trend. These could be re-developed to ensure that they are representative of the groundwater conditions.

- In 2017 and 2018, it was reported that most wells were missing locks or that the locks were not working. All locks should be replaced at the next sampling round. Some of the wells will also need new/replacement protective casing including P1-90, P2-40, P4-90, P6-91, P7-91, G17-92, G18-92, and G31A-98.

- The MECP should be consulted to determine the best course of action in relation to Condition 2(17) of the ECA (i.e., is the amendment still required?).

- The pipes of monitoring wells G39-07, G43-11, G14-92 and G13-92 were cut in 2017. When possible, resurvey these wells to update the elevations on **Appendix G**.

- Monitoring well G9A-92, was reported in September 2017 to be broken at 1.14 m from the top. This well should be evaluated to determine if repair work is possible.

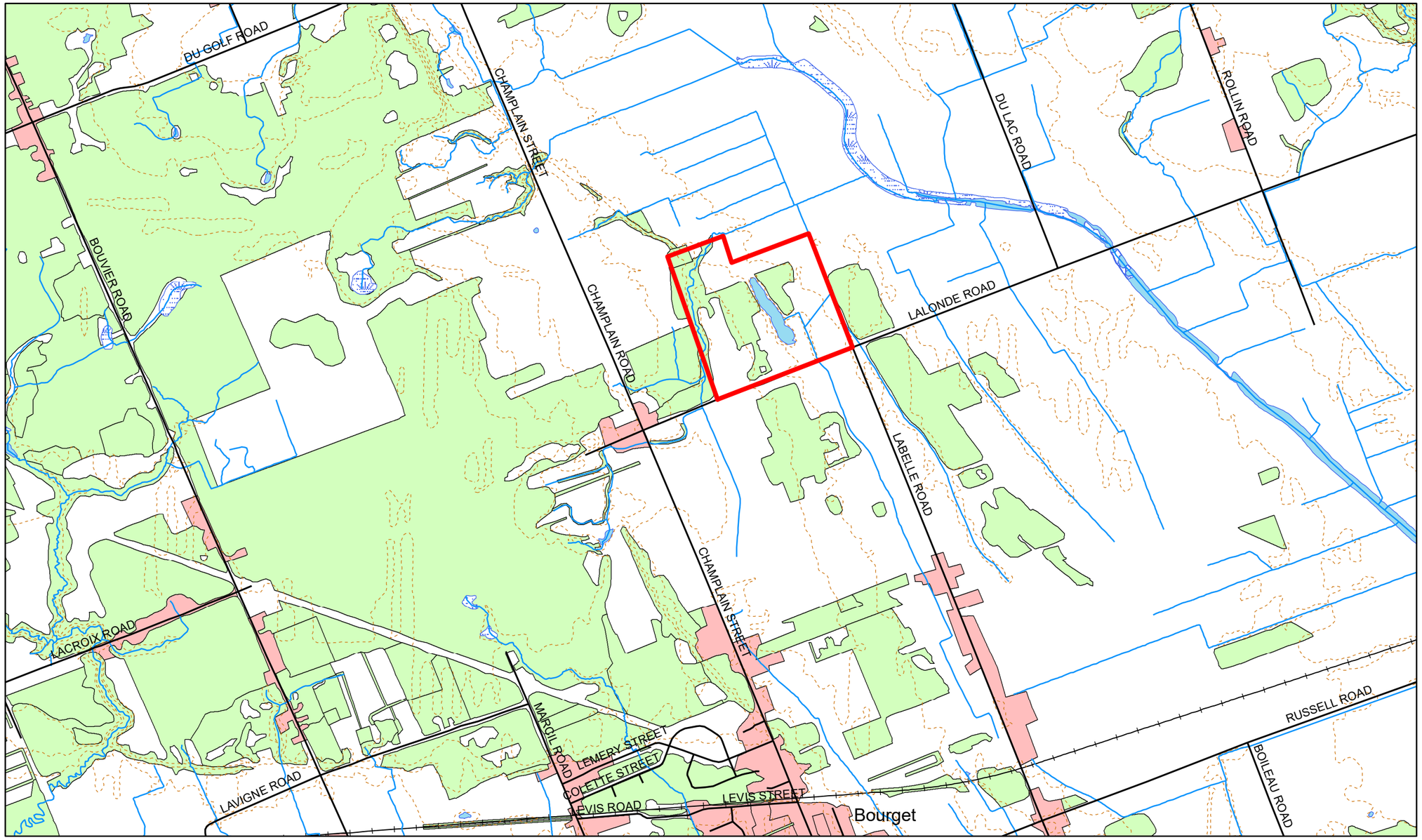
- Beaver activities have been noticed near the culvert on the east side of the pond. It is recommended to inspect the culvert as part of the surface water monitoring program to ensure that it remains unblocked.

8 LIMITATIONS AND USE OF REPORT

This report was prepared for the exclusive use of the City of Clarence-Rockland. Any use which a third party makes of this report, or and reliance on, or decisions to be made based on it, are the responsibilities of such third parties. Jp2g Consultants Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

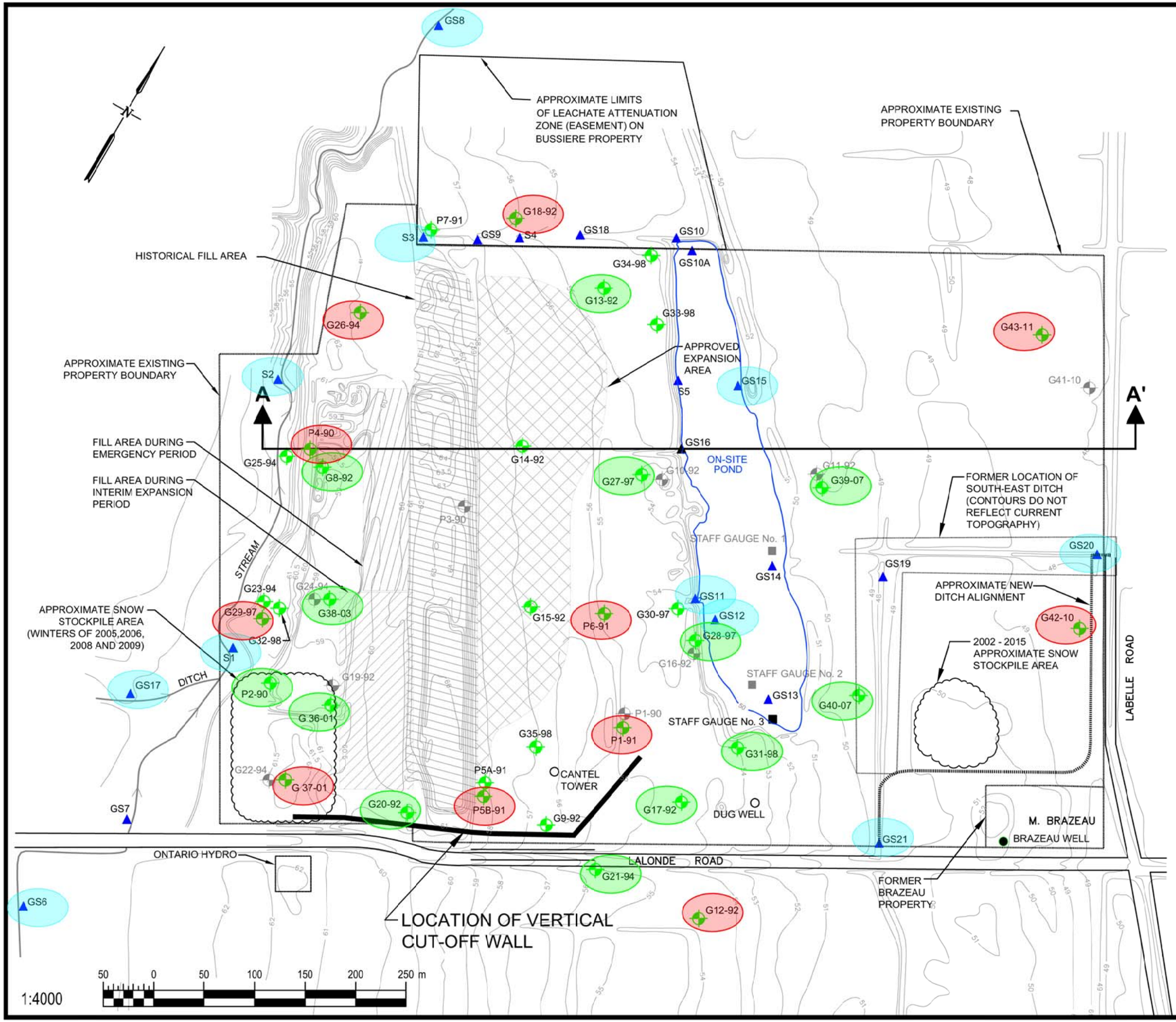
This WDS impact report involves a limited sampling of locations to assess the probability of contamination on site. The test data, chemical analyses, and conclusions given herein are the results of analyzing the groundwater encountered during the sampling programs. Based upon the total number of test holes performed, these are considered to be fairly representative of the groundwater conditions within each area tested. It should be noted, however, that any assessment regarding the presence of contamination on the property is based on interpretation of conditions determined at specific locations and depths. Chemical results are limited to those parameters tested.

FIGURES



Notes:
Data from Land Information Ontario, 2015
Shapefiles created by Jp2g Consultants Inc.
Landfill site boundary approximate

Jp2g Consultants Inc. ENGINEERS · PLANNERS · PROJECT MANAGERS	**Clarence-Rockland WDS** **Bourget, ON**	1:25,000	Figure 1- Site Location Plan
			Drawn By: JF
		Project No. 17-6021B	Checked by: AB
			Date: February 2019



LEGEND

- MONITORING WELL LOCATIONS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- SURFACE WATER MONITORING STATIONS
- TOPOGRAPHIC CONTOUR, METRES (GEODETIC DATUM)
- A — CROSS-SECTION LOCATION IN PLAN (FOR CROSS-SECTION DETAILS REFER TO FIGURE 3 OF THIS REPORT)
- SURVEILLANCE 2018
- ROUTINE 2018
- SURFACE WATER 2018

NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771

CLARENCE AND ROCKLAND LANDFILL MONITORING

CLARENCE-ROCKLAND, ONTARIO

~

SITE PLAN

Jp2g Consultants Inc.
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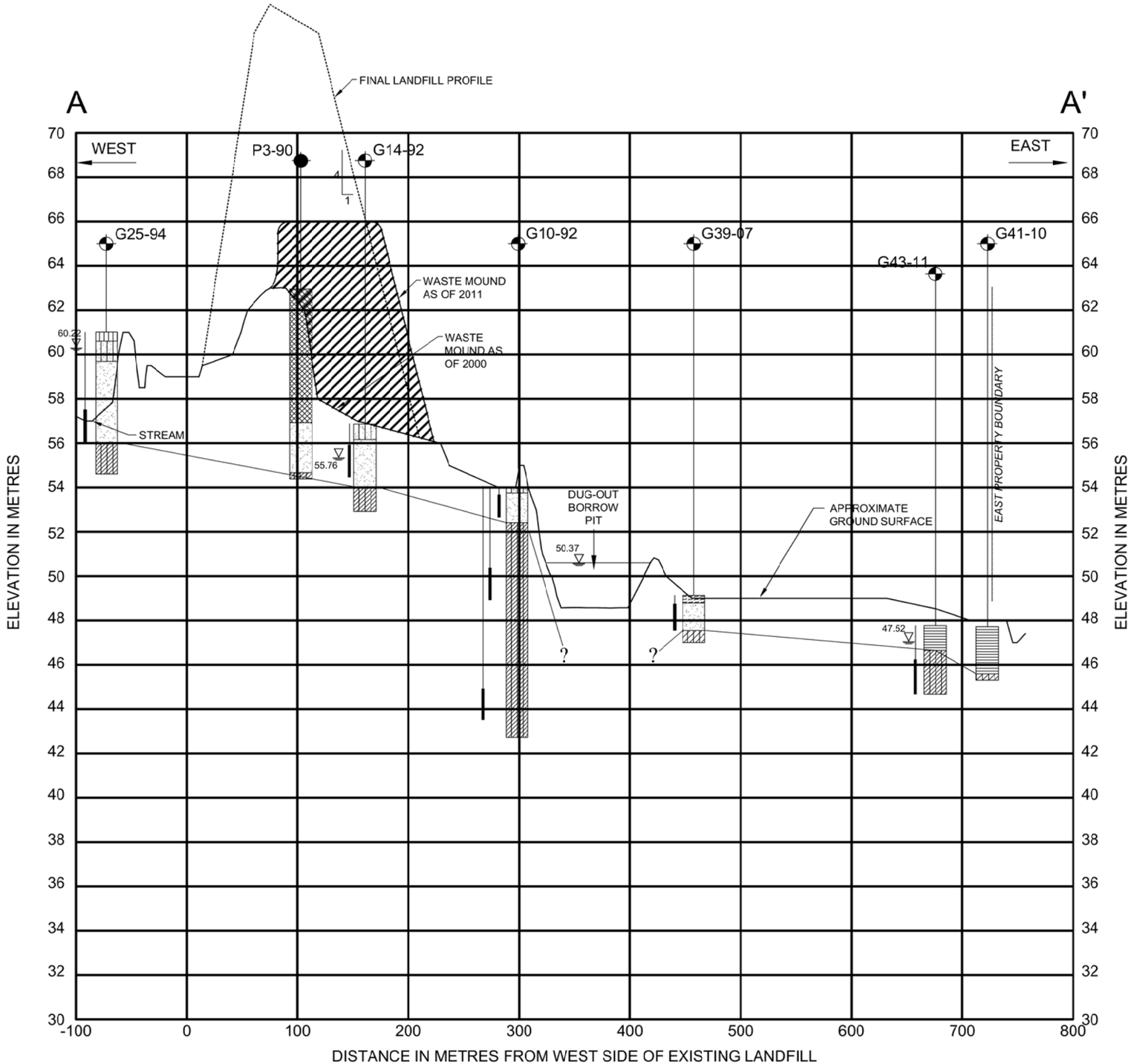
DESIGNED: RM		PROJECT No.: 17-6021B
DRAFTED: BWS/RM/AS		REVISION DATE: 24/01/2019
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: 1:4000		

FIGURE 2

SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG
LAYOUT: FIG.2-SITE PLAN SAVED ON January 24, 2019 BY ANDREAS



NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771 REFERENCE BASE PLAN SUPPLIED BY McNEELY ENGINEERING CONSULTANTS LTD.

1:200 — 5 0 5 10 m

1:4000 — 50 0 50 100 150 200 250 m

CLARENCE AND ROCKLAND LANDFILL MONITORING

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~

HYDROSTRATIGRAPHIC CROSS SECTION A-A'

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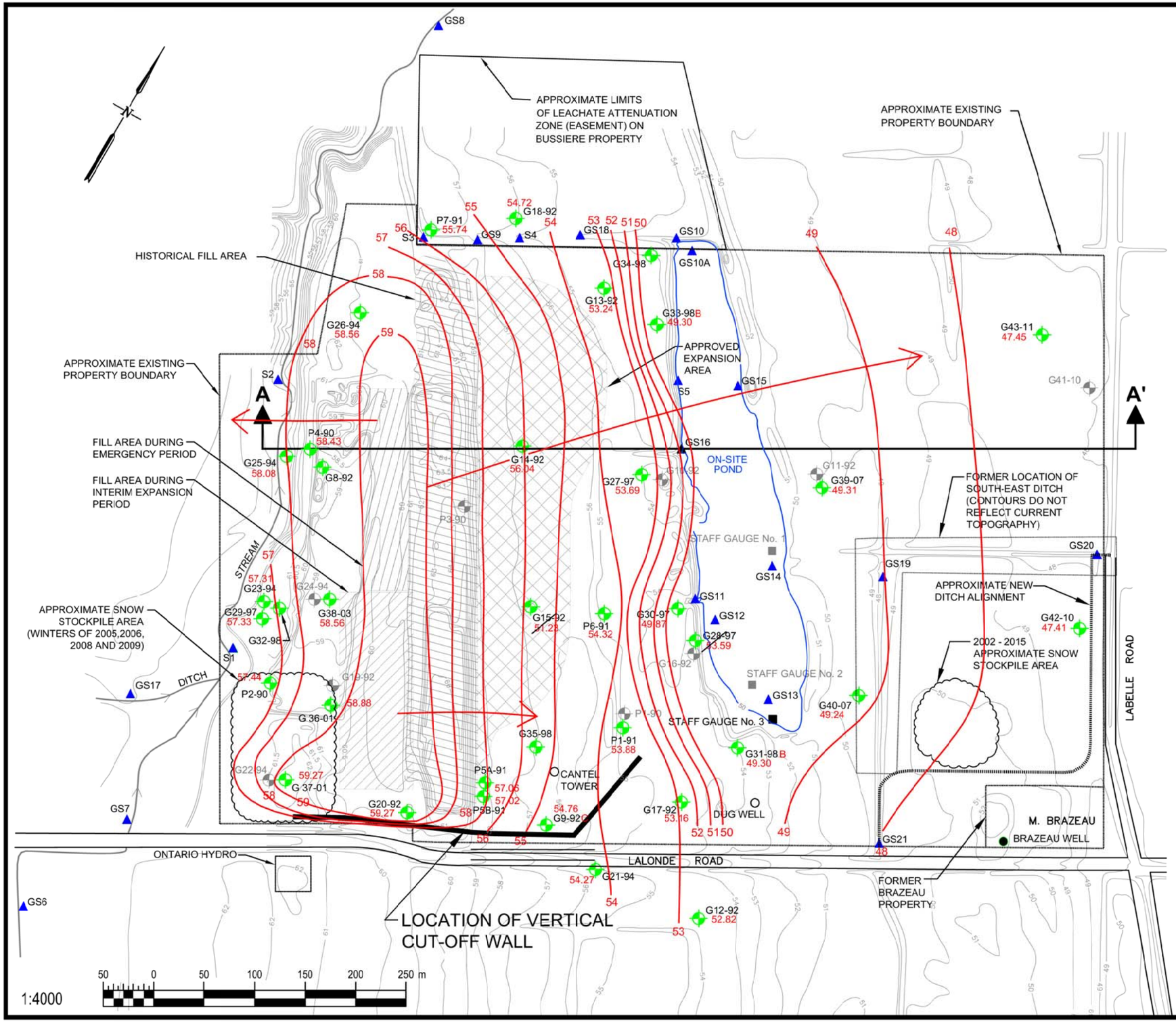
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: H=1:4000, V=1:200		

FIGURE 3

CROSS SECTION FIGURE 3.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\CROSS SECTION FIGURE 3.DWG LAYOUT: FIGURE 3 SAVED ON January 24, 2019 BY ANDREAS



LEGEND

- MONITORING WELL LOCATIONS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- SURFACE WATER MONITORING STATIONS
- 49 — TOPOGRAPHIC CONTOUR, METRES (GEODETIC DATUM)
- A — CROSS-SECTION LOCATION IN PLAN (FOR CROSS-SECTION DETAILS REFER TO FIGURE 3 OF THIS REPORT)
- 98.46 — SPRING 2018 GROUNDWATER ELEVATION
- ~~98.46~~ — NOT USED FOR SPRING 2018 GROUNDWATER ELEVATION
- DIRECTION OF SPRING 2016 GROUNDWATER FLOW
- 50 — 50 — SPRING 2016 GROUNDWATER CONTOUR

NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771

CLARENCE AND ROCKLAND LANDFILL MONITORING

CLARENCE-ROCKLAND, ONTARIO

SPRING 2018

GROUNDWATER ELEVATIONS - SANDY & SILTY UNITS

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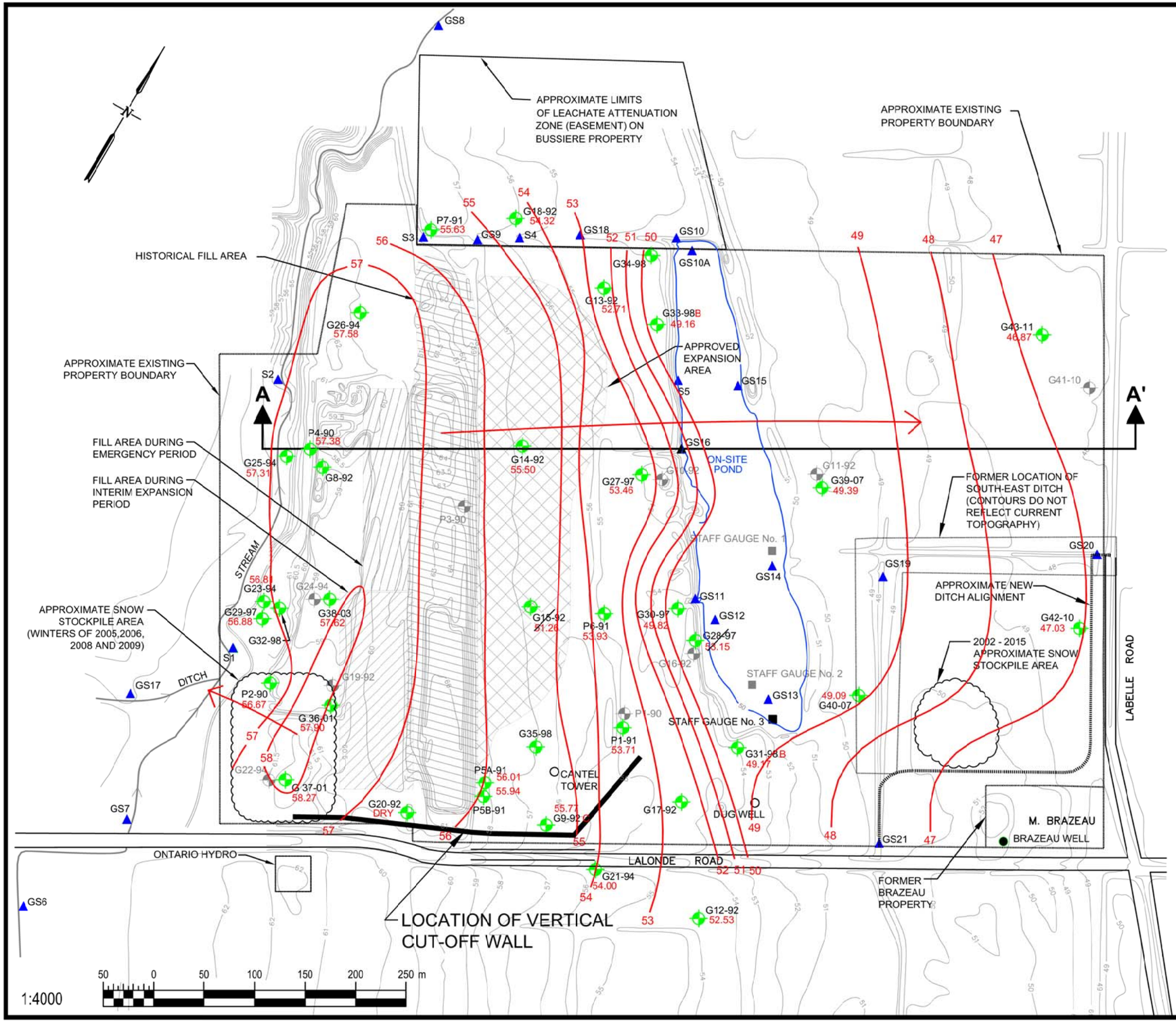
DRAFTED: BWS/RM/AS		REVISION DATE: 24/01/2019
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: 1:4000		

FIGURE 4

SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG
LAYOUT: FIGURE 4 SPRING GW SAVED ON January 25, 2019 BY ANDREAS



LEGEND

- MONITORING WELL LOCATIONS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- SURFACE WATER MONITORING STATIONS
- 49 — TOPOGRAPHIC CONTOUR, METRES (GEODETIC DATUM)
- A — CROSS-SECTION LOCATION IN PLAN (FOR CROSS-SECTION DETAILS REFER TO FIGURE 3 OF THIS REPORT)
- 98.46 — SUMMER 2018 GROUNDWATER ELEVATION
- 98.46 — NOT USED FOR SUMMER 2018 GROUNDWATER ELEVATION
- DIRECTION OF SUMMER 2018 GROUNDWATER FLOW
- 50 — 50 — SUMMER 2018 GROUNDWATER CONTOUR

NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771

CLARENCE AND ROCKLAND LANDFILL MONITORING

CLARENCE-ROCKLAND, ONTARIO
SUMMER 2018
GROUNDWATER ELEVATIONS - SANDY & SILTY UNITS

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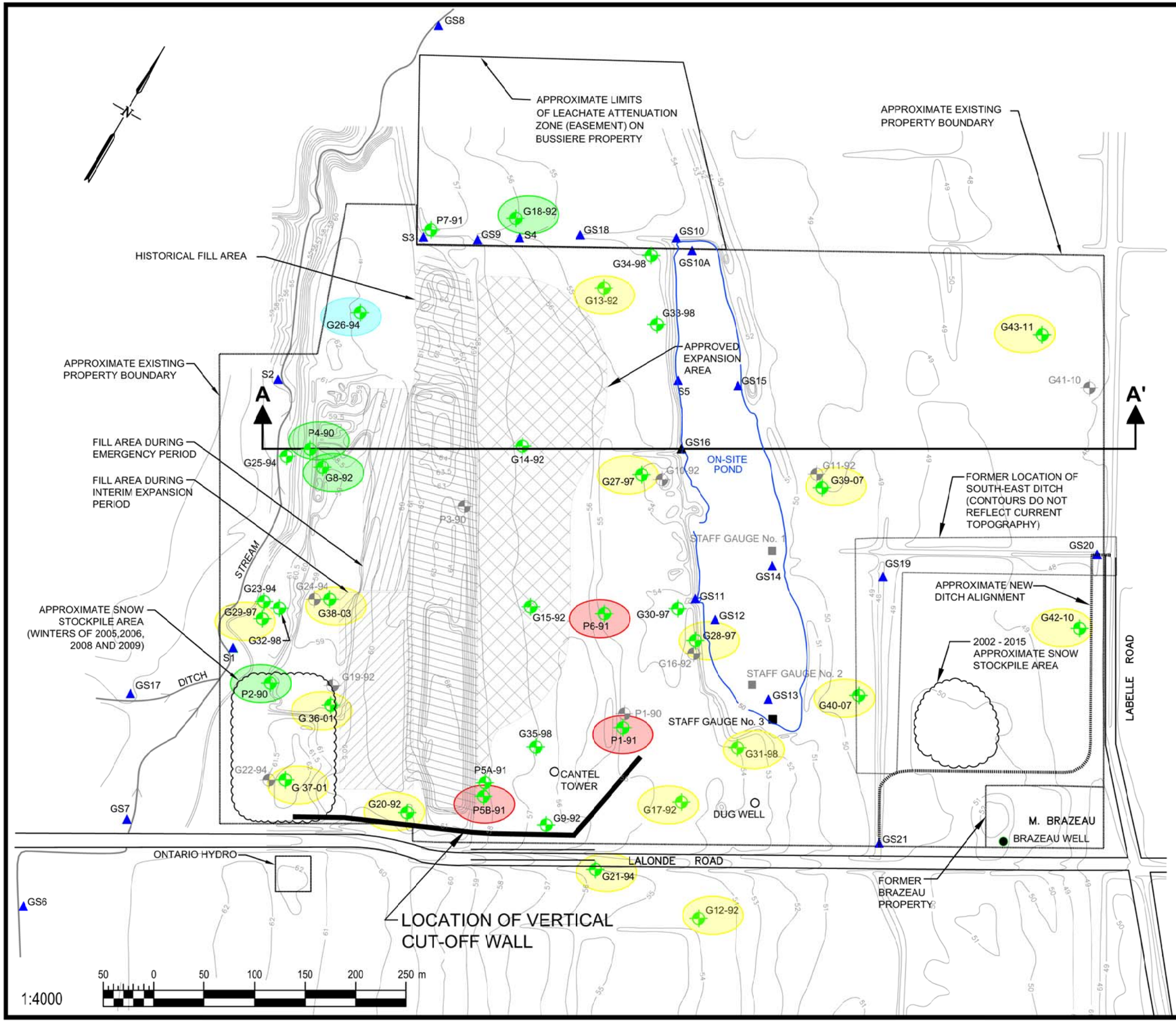
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: 1:4000		

FIGURE 5

SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG
LAYOUT: FIGURE 5 SUMMER GW SAVED ON January 25, 2019 BY ANDREAS



LEGEND

- MONITORING WELL LOCATIONS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- SURFACE WATER MONITORING STATIONS
- TOPOGRAPHIC CONTOUR, METRES (GEODETIC DATUM)
- CROSS-SECTION LOCATION IN PLAN (FOR CROSS-SECTION DETAILS REFER TO FIGURE 3 OF THIS REPORT)
- BACKGROUND
- MILD LEACHATE IMPACT
- MODERATE LEACHATE IMPACT
- LEACHATE IMPACTED

NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771

CLARENCE AND ROCKLAND LANDFILL MONITORING

CLARENCE-ROCKLAND, ONTARIO

~

GROUNDWATER LEACHATE INTERPRETATION 2018

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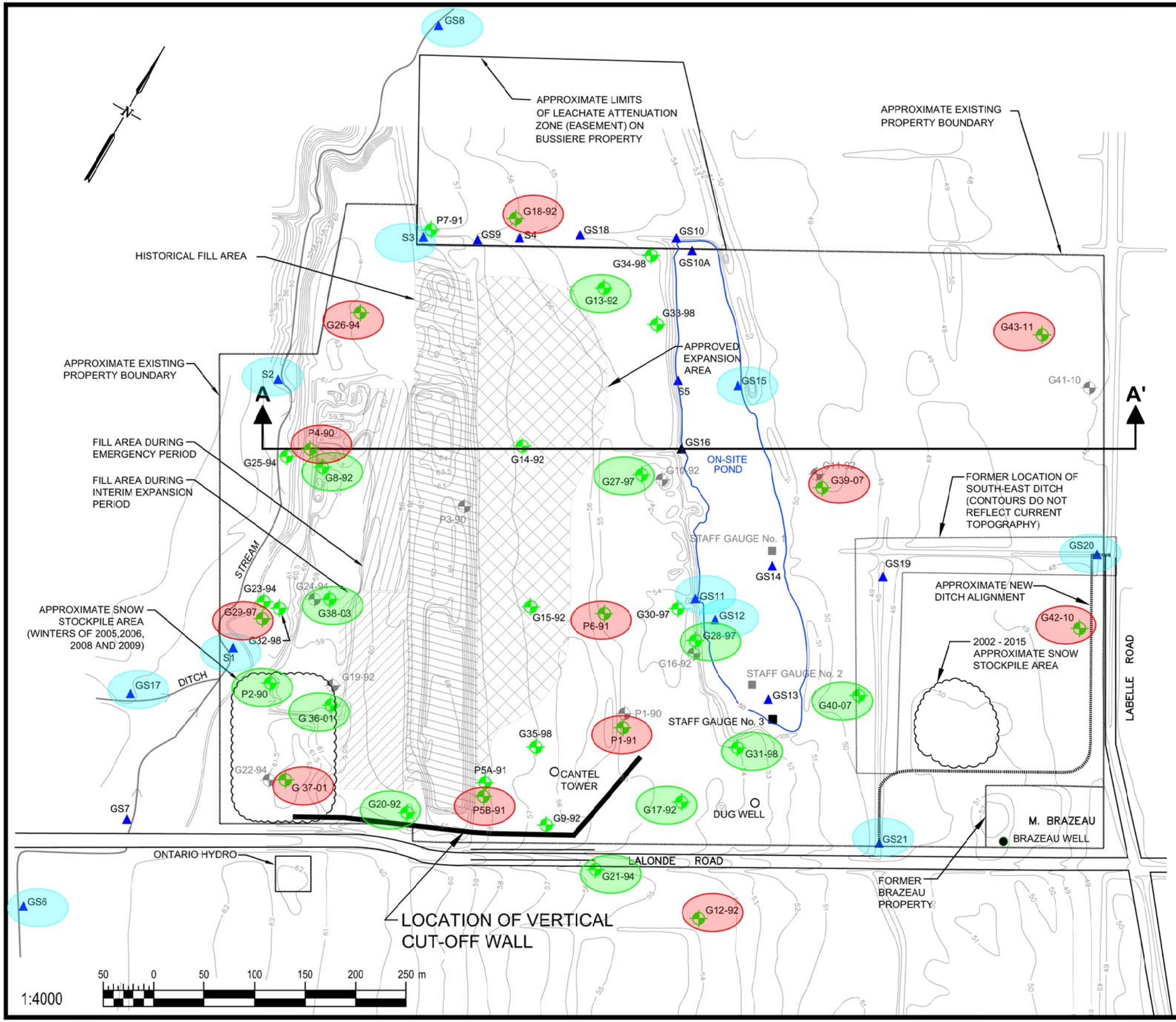
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: 1:4000		

FIGURE 6

SITE PLAN AND GROUNDWATER FLOWSFIGURE6.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\SITE PLAN AND GROUNDWATER FLOWSFIGURE6.DWG
LAYOUT: FIG.6-LEACHATE SAVED ON January 24, 2019 BY ANDREAS



LEGEND

- MONITORING WELL LOCATIONS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- SURFACE WATER MONITORING STATIONS
- TOPOGRAPHIC CONTOUR, METRES (GEODETIC DATUM)
- A — CROSS-SECTION LOCATION IN PLAN (FOR CROSS-SECTION DETAILS REFER TO FIGURE 3 OF THIS REPORT)
- SURVEILLANCE 2019
- ROUTINE 2019
- SURFACE WATER 20189

NOTES

1. BASE MAP COURTESY OF GOLDER ASSOCIATES (2016-02-22). PROJECT NO. 1520771

CLARENCE AND ROCKLAND LANDFILL MONITORING

CLARENCE-ROCKLAND, ONTARIO

PROPOSED SAMPLING LOCATIONS 2019

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DESIGNED: RM		PROJECT No.: 17-6021B
DRAFTED: BWS/RM/AS		REVISION DATE: 24/01/2019
CHECKED: AB	APPROVED: AB	REVISION No.: .
SCALE: 1:4000		

FIGURE 7

SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG

DWG NAME: J:\6-ENVIRONMENTAL\ACTIVE\17-6021A - CLARENCE ROCKLAND LANDFILL MONITORING\04 DRAWINGS\2019\SITE PLAN AND GROUNDWATER FLOWS FOR CAZ.DWG
LAYOUT: FIGURE 7 PROPOSED SAVED ON January 24, 2019 BY ANDREAS

APPENDIX A

Monitoring and Screening Checklist

Appendix D-Monitoring and Screening Checklist
General Information and Instructions

General Information: The checklist is to be completed, and submitted with the Monitoring Report.
Instructions: A complete checklist consists of:
(a) a completed and signed checklist, including any additional pages of information which can be attached as needed to provide further details where indicated.
(b) completed contact information for the Competent Environmental Practitioner (CEP)
(c) self-declaration that CEP(s) meet(s) the qualifications as set out below and in Section 1.2 of the Technical Guidance Document.

Definition of Groundwater CEP:
For groundwater, the CEP must have expertise in hydrogeology and meet one of the following:
(a) the person holds a licence, limited licence or temporary licence under the *Professional Engineers Act*; or
(b) the person holds a certificate of registration under the *Professional Geoscientists Act, 2000* and is a practicing member, temporary, member or limited member of the Association of Professional Geoscientists of Ontario. O. Reg. 66/08, s. 2..
Definition of Surface water CEP:
A CEP for surface water assessments is a scientist, professional engineer or professional geoscientist as described in (a) and (b) above with demonstrated experience and post-secondary education, either a diploma or degree, in hydrology, aquatic ecology, limnology, aquatic biology, physical geography with specialization in surface water, and/or water resource management.

The type of scientific work that a CEP performs must be consistent with that person's education and experience. If an individual has appropriate training and credentials in both groundwater and surface water and is responsible for both areas of expertise, the CEP may then complete and validate both sections of the checklist.

Monitoring Report and Site Information	
Waste Disposal Site Name	City of Clarence-Rockland
Location (e.g. street address, lot, concession)	Lot 15, Concession 4
GPS Location (taken within the property boundary at front gate/ front entry)	487270, 5034450 (zone 18)
Municipality	City of Clarence-Rockland
Client and/or Site Owner	City of Clarence-Rockland
Monitoring Period (Year)	2017
This Monitoring Report is being submitted under the following:	
Environmental Compliance Approval Number:	A471203
Director's Order No.:	Type Here
Provincial Officer's Order No.:	Type Here
Other:	Type Here

Report Submission Frequency	◉ **Annual** ○ **Other**	Specify (Type Here):	
The site is: **(Operation Status)**	◉ **Open** ○ **Inactive** ○ **Closed**		
Does your Site have a Total Approved Capacity?	◉ **Yes** ○ **No**		
If yes, please specify Total Approved Capacity	740000	*Units*	
Does your Site have a Maximum Approved Fill Rate?	○ **Yes** ○ **No**		
If yes, please specify Maximum Approved Fill Rate		*Units*	
Total Waste Received within Monitoring Period (Year)		*Units*	Cubic Metres
Total Waste Received within Monitoring Period (Year) *Methodology*	See Operations Report		
Estimated Remaining Capacity		*Units*	Cubic Metres
Estimated Remaining Capacity *Methodology*	See Operations Report		
Estimated Remaining Capacity *Date Last Determined*	Select Date		
Non-Hazardous Approved Waste Types	☒ Domestic ☒ Industrial, Commercial & Institutional (IC&I) ☐ Source Separated Organics (Green Bin) ☒ Tires	☒ Contaminated Soil ☒ Wood Waste ☒ Blue Box Material ☐ Processed Organics ☒ Leaf and Yard Waste	☐ Food Processing/Preparation Operations Waste ☐ Hauled Sewage Other: Provide any other approved waste types not listed here
Subject Waste Approved Waste Classes: Hazardous & Liquid Industrial *(separate waste classes by comma)*			
Year Site Opened *(enter the Calendar Year only)*	1980	**Current ECA Issue Date**	September 9, 2015
Is your Site required to submit Financial Assurance?		○ **Yes** ◉ **No**	
Describe how your Landfill is designed.		◉ Natural Attenuation only ○ Fully engineered Facility ○ Partially engineered Facility	
Does your Site have an approved Contaminant Attenuation Zone?		◉ **Yes** ○ **No**	

If closed, specify C of A, control or authorizing document closure date:	Select Date

Has the nature of the operations at the site changed during this monitoring period?	○ **Yes** ◉ **No**
If yes, provide details:	Type Here
Have any measurements been taken since the last reporting period that indicate landfill gas volumes have exceeded the MOE limits for subsurface or adjacent buildings? (i.e. exceeded the LEL for methane)	○ Yes ◉ No

Groundwater WDS Verification:

Based on all available information about the site and site knowledge, it is my opinion that:

Sampling and Monitoring Program Status:

1) The monitoring program continues to effectively characterize site conditions and any groundwater discharges from the site. All monitoring wells are confirmed to be in good condition and are secure:	○ **Yes** ◉ **No**	Perform maintenance on the monitoring wells. All wells should be fitted with proper locks and caps. Of note in 2017, monitoring well G9A-92 to be broken at 1.14 m from the top of the protective casing. G43-11 could not be closed due to the inner pipe being to long (requires cutting). A cap was missing from G43-11. Monitoring wells G28-97 and G15-92 are showing groundwater elevations that diverge from the local trend. these could be re-developed to ensure that they are representative of the groundwater conditions.
2) All groundwater, leachate and WDS gas sampling and monitoring for the monitoring period being reported on was successfully completed as required by Certificate(s) of Approval or other relevant authorizing/control document (s):	○ **Yes** ◉ **No** ○ **Not Applicable**	If no, list exceptions below or attach information.

Groundwater Sampling Location	**Description/Explanation for change (change in name or location, additions, deletions)**	**Date**
G20-92	Dry	September 2017

3) a) Is landfill gas being monitored or controlled at the site?	◉ **Yes** ○ **No**	
If yes to 3(a), please answer the next two questions below.		
b) Have any measurements been taken since the last reporting period that indicate landfill gas is present in the subsurface at levels exceeding criteria established for the site?	○ **Yes** ◉ **No**	
c) Has the sampling and monitoring identified under 3(a) for the monitoring period being reported on was successfully completed in accordance with established protocols, frequencies, locations, and parameters developed as per the Technical Guidance Document:	◉ **Yes** ○ **No** ○ **Not Applicable**	If no, list exceptions below or attach additional information.

Groundwater Sampling Location	**Description/Explanation for change (change in name or location, additions, deletions)**	**Date**
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date

4) All field work for groundwater investigations was done in accordance with standard operating procedures as established/outlined per the Technical Guidance Document (including internal/external QA/QC requirements) (Note: A SOP can be from a published source, developed internally by the site owner's consultant, or adopted by the consultant from another organization):	◉ **Yes** ○ **No**	If no, specify (Type Here):

Sampling and Monitoring Program Results/WDS Conditions and Assessment:			
5) The site has an adequate buffer, Contaminant Attenuation Zone (CAZ) and/or contingency plan in place. Design and operational measures, including the size and configuration of any CAZ, are adequate to prevent potential human health impacts and impairment of the environment.	○ Yes ◉ No	The implementation of mitigation measure for the west and east boundaries should continue, as recommended in the 2016 AMR. These measures consist of the potential acquisition of additional land to extend the CAZ west of the site discontinuing the stockpiling of snow on the eastern portion of the site.	
6) The site meets compliance and assessment criteria.	○ Yes ◉ No	RUC exceedances were noted for one or more trigger parameter in every direction except in the northeast corner.	
7) The site continues to perform as anticipated. There have been no unusual trends/ changes in measured leachate and groundwater levels or concentrations.	○ Yes ◉ No	Reinstatement of deep monitoring wells G31-98 in 2017 has shown that some leachate migration into the deeper till and shallow bedrock has occurred.	
1) Is one or more of the following risk reduction practices in place at the site: ***(a)*** **There is minimal reliance on natural attenuation of leachate due to the presence of an effective waste liner and active leachate collection/ treatment; or** ***(b)*** **There is a predictive monitoring program in-place (modeled indicator concentrations projected over time for key locations); or** ***(c)*** **The site meets the following two conditions (typically achieved after 15 years or longer of site operation):** ***i.*** **The site has developed stable leachate mound(s) and stable leachate plume geometry/concentrations; and** ***ii.*** **Seasonal and annual water levels and water quality fluctuations are well understood.**	○ Yes ◉ No	**Note which practice(s):**	☐ (a) ☐ (b) ☐ (c)
9) Have trigger values for contingency plans or site remedial actions been exceeded (where they exist):	◉ Yes ○ No ○ Not Applicable	RUC exceedances of chloride, DOC, TDS, iron, manganese and or sodium on all sides of the WDS except in the northeast corner.	

Groundwater CEP Declaration:

I am a licensed professional Engineer or a registered professional geoscientist in Ontario with expertise in hydrogeology, as defined in Appendix D under Instructions. Where additional expertise was needed to evaluate the site monitoring data, I have relied on individuals who I believe to be experts in the relevant discipline, who have co-signed the compliance monitoring report or monitoring program status report, and who have provided evidence to me of their credentials.

I have examined the applicable Certificate of Approval and any other environmental authorizing or control documents that apply to the site. I have read and followed the Monitoring and Reporting for Waste Disposal Sites Groundwater and Surface Water Technical Guidance Document (MOE, 2010, or as amended), and associated monitoring and sampling guidance documents, as amended from time to time. I have reviewed all of the data collected for the above-referenced site for the monitoring period(s) identified in this checklist. Except as otherwise agreed with the ministry for certain parameters, all of the analytical work has been undertaken by a laboratory which is accredited for the parameters analysed to *ISO/IEC 17025:2005 (E)- General requirements for the competence of testing and calibration laboratories,* or as amended from time to time by the ministry.

If any exceptions or potential concerns have been noted in the questions in the checklist attached to this declaration, it is my opinion that these exceptions and concerns are minor in nature and will be rectified for the next monitoring/reporting period. Where this is not the case, the circumstances concerning the exception or potential concern and my client's proposed action have been documented in writing to the Ministry of the Environment District Manager in a letter from me dated:

Select Date

Recommendations:

Based on my technical review of the monitoring results for the waste disposal site:

○ **No changes to the monitoring program are recommended**	Continue to use G26-94 as background level. Sampling of wells G31B-98 and G31A-98 to obtain temporal parameter concentrations in hte bedrock shale unit. Use seven (7) monitoring wells as compliance points around the leading edges ht plume (G18-92, GS26-94, G29-97, G37-01, G12-92, G42-10, G43-11); and
◉ **The following change(s) to the monitoring program is/are recommended:**	Complete maintenance on selected wells.
○ **No Changes to site design and operation are recommended**	
◉ **The following change(s) to the site design and operation is/ are recommended:**	the implementation of mitigation measures for the west and east boundaries should continue, as recommended in the 2016 AMR. These measures consist of determining the extent of additional property to the west and discontinuing the stockpiling of snow to the east.

Name:	Andrew Buzza, P.Geo		
Seal:	Add Image		
Signature:		**Date:**	Select Date
CEP Contact Information:	Andrew Buzza, P.Geo		
Company:	Jp2g Consultants Inc.		
Address:	1150 Morrison Drive, Suite 410 Ottawa, Ontario, K2H 8S9		
Telephone No.:	613-828-7800	Fax No. :	613-828-2600
E-mail Address:	andrewb@jp2g.com		
Co-signers for additional expertise provided:			
Signature:		**Date:**	Select Date
Signature:		**Date:**	Select Date

Surface Water WDS Verification:

Provide the name of surface water body/bodies potentially receiving the WDS effluent and the approximate distance to the waterbody (including the nearest surface water body/bodies to the site):

Name (s)	1) Western Stream 2) On-Site Pond 3) Cobbs Lake Creek,
Distance(s)	1) 80 m from footprint 2) 70m from footprint 3) 1.7 km

Based on all available information and site knowledge, it is my opinion that:

Sampling and Monitoring Program Status:

1) The current surface water monitoring program continues to effectively characterize the surface water conditions, and includes data that relates upstream/background and downstream receiving water conditions:	○ Yes ◉ No	Sample surface water stations S3 and GS8 for surveillance for at least one year to evaluate the presence of potential leachate in that area Surface water stations GS20 and GS21 should continue to be monitored for routine parameters; however, no additional stations are needed along the drain at this time.
2) All surface water sampling for the monitoring period being reported was successfully completed in accordance with the Certificate(s) of Approval or relevant authorizing/control document(s) (if applicable):	◉ Yes ○ No ○ **Not applicable (No C of A, authorizing / control document applies)**	If no, specify below or provide details in an attachment.

Surface Water Sampling Location	Description/Explanation for change (change in name or location, additions, deletions)	Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date

3) a) Some or all surface water sampling and monitoring program requirements for the monitoring period have been established outside of a ministry C of A or authorizing/control document.	○ **Yes** ◉ **No** ○ **Not Applicable**	
b) If yes, all surface water sampling and monitoring identified under 3 (a) was successfully completed in accordance with the established program from the site, including sampling protocols, frequencies, locations and parameters) as developed per the Technical Guidance Document:	○ **Yes** ○ **No** ◉ **Not Applicable**	If no, specify below or provide details in an attachment.

Surface Water Sampling Location	Description/Explanation for change (change in name or location, additions, deletions)	Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date
Type Here	Type Here	Select Date

4) All field work for surface water investigations was done in accordance with standard operating procedures, including internal/external QA/QC requirements, as established/outlined as per the Technical Guidance Document, MOE 2010, or as amended. (Note: A SOP can be from a published source, developed internally by the site owner's consultant, or adopted by the consultant from another organization):	◉ **Yes** ○ **No**	If no, specify (Type Here):

Sampling and Monitoring Program Results/WDS Conditions and Assessment:

5) The receiving water body meets surface water-related compliance criteria and assessment criteria: i.e., there are no exceedances of criteria, based on MOE legislation, regulations, Water Management Policies, Guidelines and Provincial Water Quality Objectives and other assessment criteria (e.g., CWQGs, APVs), as noted in Table A or Table B in the Technical Guidance Document (Section 4.6):	○ **Yes** ◉ **No**

If no, list parameters that exceed criteria outlined above and the amount/percentage of the exceedance as per the table below or provide details in an attachment:

Parameter	Compliance or Assessment Criteria or Background	Amount by which Compliance or Assessment Criteria or Background Exceeded
e.g. Nickel	e.g. C of A limit, PWQO, background	e.g. X% above PWQO
See Annex A	Type Here	Type Here
Type Here	Type Here	Type Here
Type Here	Type Here	Type Here
Type Here	Type Here	Type Here
6) In my opinion, any exceedances listed in Question 5 are the result of non-WDS related influences (such as background, road salting, sampling site conditions)?	◉ **Yes** ○ **No**	The surface water 2017 interpretation continues to indicate that the western stream is not impacted by leachate but is rather impacted by an off-site source upstream of the western ditch. Similarly, the concentrations in the eastern ditch indicate that it is not significantly impacted by leachate.

7) All monitoring program surface water parameter concentrations fall within a stable or decreasing trend. The site is not characterized by historical ranges of concentrations above assessment and compliance criteria.	(●) **Yes** ( ) **No**	If no, list parameters and stations that is outside the expected range. Identify whether parameter concentrations show an increasing trend or are within a high historical range (Type Here)
8) For the monitoring program parameters, does the water quality in the groundwater zones adjacent to surface water receivers exceed assessment or compliance criteria (e.g., PWQOs, CWQGs, or toxicity values for aquatic biota (APVs)):	( ) Yes ( ) No ( ) Not Known (●) Not Applicable	No groundwater discharge environment.
9) Have trigger values for contingency plans or site remedial actions been exceeded (where they exist):	(●) **Yes** ( ) **No** ( ) **Not Applicable**	The non-compliance in the western ditch and stream are attributed to sources other than the WDS as discussed. Likewise, the eastern ditch has been interpreted as not being impacted by leachate. The non-compliance in the on-site pond are attributed in part to the WDS. There is no surface water outlet from the pond and contaminant migrations is through the groundwater. Accordingly, the surface water contingency measures are not required.

Surface Water CEP Declaration:

I, the undersigned hereby declare that I am a Competent Environmental Practitioner as defined in Appendix D under Instructions, holding the necessary level of experience and education to design surface water monitoring and sampling programs, conduct appropriate surface water investigations and interpret the related data as it pertains to the site for this monitoring period.

I have examined the applicable Certificate of Approval and any other environmental authorizing or control documents that apply to the site. I have read and followed the Monitoring and Reporting for Waste Disposal Sites Groundwater and Surface Water Technical Guidance Document (MOE, 2010, or as amended) and associated monitoring and sampling guidance documents, as amended from time to time. I have reviewed all of the data collected for the above-referenced site for the monitoring period(s) identified in this checklist. Except as otherwise agreed with the ministry for certain parameters, all of the analytical work has been undertaken by a laboratory which is accredited for the parameters analysed to *ISO/IEC 17025:2005 (E)- General requirements for the competence of testing and calibration laboratories,* or as amended from time to time by the ministry.

If any exceptions or potential concerns have been noted in the questions in the checklist attached to this declaration, it is my opinion that these exceptions and concerns are minor in nature or will be rectified for future monitoring events. Where this is not the case, the circumstances concerning the exception or potential concern and my client's proposed action have been documented in writing to the Ministry of the Environment District Manager in a letter from me dated:

Select Date

Recommendations:

Based on my technical review of the monitoring results for the waste disposal site:

○ **No Changes to the monitoring program are recommended**	Sample stations S3 and GS8 for surveillance parameters for a least one year to evaluate the presence of leachate in that area Surface water station GS20 and GS21 should continue to be monitored for routine parameters; however, no additional stations are required along the drain at this time. Evaluate the impact of beaver activities on the drainage features at the site; and Confirm staff gauge readings
◉ **The following change(s) to the monitoring program is/are recommended:**	
◉ **No changes to the site design and operation are recommended**	Type Here
○ **The following change(s) to the site design and operation is/are recommended:**	

CEP Signature	
Relevant Discipline	Professional Geoscientist, with 30 years experience
Date:	Select Date
CEP Contact Information:	Andrew Buzza, P.Geo
Company:	Jp2g Consultants Inc.
Address:	1150 Morrison Drive, Suite 410 Ottawa, Ontario, K2H 8S9
Telephone No.:	613-828-7800
Fax No. :	613-828-2600
E-mail Address:	andrewb@jp2g.com
Save As	**Print Form**

2018 highest concentrations from from leachate impacted surface water station GS11/GS12 or GS15

Parameter	Compliance Assessment	Compliance Value (mg/L)	Maximum Detection (mg/L)	% Exceedance [4]
Unionized ammonia	PWQO	0.02	1.39	6850%
Phosphorus	PWQO[2]	0.03	0.07	133%
Aluminum dissolved	PWQO[3]	0.075	0.13	73%
Boron	PWQO	0.2	2.59	1195%
Cobalt	PWQO	0.0009	0.0035	289%
Copper	PWQO	0.005	0.0087	74%
Iron	PWQO	0.3	1.69	463%
Vanadium	PWQO	0.006	0.006	0%
Zinc	PWQO	0.03	-	-
Phenolics	PWQO	0.001	0.015	1400%
pH (field)	PWQO	8.5	9.5	12%
Nitrite	CWQG	0.06	0.18	200%
Chloride	CWQG[1]	120	259	116%

(1) Long-term effect.

(2) Current scientific evidence is insufficient to develop a firm Objective at this time. Accordingly, the following phosphorus concentrations should be considered as general guidelines which should be supplemented by site-specific studies: To avoid nuisance concentrations of algae in lakes, average total phosphorus concentrations for the ice-free period should not exceed 20 ug/L; A high level of protection against aesthetic deterioration will be provided by a total phosphorus concentration for the ice-free period of 10 ug/L or less. This should apply to all lakes naturally below this value; Excessive plant growth in rivers and streams should be eliminated at a total phosphorus concentration below 30 ug/L.

(3) At pH 4.5 to 5.5 the Interim PWQO is 15 µg/L based on inorganic monomeric aluminum measure in clay-free samples; At pH > 5.5 to 6.5, no condition should be permitted which would increase the acid soluble inorganic aluminum concentration in clay-free samples to more than 10% above natural background concentrations for waters representative of that geological area of the Province that are unaffected by man-made inputs. At pH > 6.5 to 9.0, the Interim PWQO is 75 µg/L based on total aluminum measured in clay-free samples. If natural background aluminum concentrations in water bodies unaffected by man-made inputs are greater than the numerical Interim PWQO (above), no condition is permitted that would increase the aluminum concentration in clay-free samples by more than 10% of the natural background level. Note: pH values of < 6.5 and > 8.5 are outside the range considered acceptable by the PWQO for pH. See the Scientific Criteria Document for Development of Provincial Water Quality Objectives and Guidelines - Aluminum for a discussion of analytical procedures.

(4) Percentage error: | PWQO-Conc | / PWQO *100

APPENDIX B

Environmental Compliance Approval

CONTENT COPY OF ORIGINAL

Ontario

Ministry of the Environment **Ministère de l'Environnement**

CERTIFICATE OF APPROVAL
MUNICIPAL AND PRIVATE SEWAGE WORKS
NUMBER 3362-6D7PL4

The Corporation of the City of Clarence-Rockland
1560 rue Laurier
Rockland, Ontario
K4K 1P7

Site Location: City of Clarence Rockland Waste Disposal Site
Lot 15, Concession 4
City of Clarence-Rockland, United Counties of Prescott and Russell

You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:

a stormwater and leachate impacted groundwater management facility servicing the Clarence-Rockland Waste Disposal Site, located on Lot 15, Concession 4, United Counties of Prescott and Russell, consisting of:

- one (1) existing dug-out borrow pit (pond) serving as a natural attenuation facility for stormwater runoff and leachate impacted groundwater, which is approximately 450 m long and 50 m to 100 m wide with a maximum depth of 2.5 m and a total surface area of 3.3 ha, receiving stormwater runoff from a 19.3 ha drainage area, providing a total storage capacity of 40,000 m^3 at the current discharge elevation of 49.5 m, located at the northeast side of the landfill site footprint, discharging to Cobbs Lake Creek which eventually discharges to Ottawa River;
- upgrades to the east bank of the pond to raise the bank elevation to 51.0 m and the pond outlet elevation to 50.5 m increasing the maximum storage capacity of the pond to 63,175 m^3;
- plugging the pond's east bank drainage outlets and infilling of an approximately 80 m long ditch immediately downstream of the pond outlet to promote infiltration of pond contents to groundwater;
- including all associated controls and appurtenances.

all in accordance with Application for Approval of Municipal and Private Sewage Works submitted by The Corporation of the City of Clarence-Rockland dated April 13, 2005, and drawings and design brief prepared by Stantec Consulting Ltd., Ottawa, Ontario.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

"*Act*" means the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended;

"*Certificate*" means this entire certificate of approval document, issued in accordance with Section 53 of the *Act*, and includes any schedules;

"*Director*" means any *Ministry* employee appointed by the Minister pursuant to section 5 of the *Act*;

"*District Manager*" means the District Manager of the Kingston District Office of the Ministry;

"*Ministry*" means the Ontario Ministry of the Environment;

"*Owner*" means The Corporation of the City of Clarence-Rockland and includes its successors and assignees;

"Previous Works" means those portions of the sewage works previously constructed and approved under a certificate of approval;

"Proposed Works" means the sewage works described in the *Owner's* application, this *Certificate* and in the supporting

documentation referred to herein, to the extent approved by this *Certificate*;

"*Regional Director*" means the Regional Director of the Eastern Region of the Ministry;

"*Works*" means the sewage works described in the *Owner*'s application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate* and includes both *Previous Works* and *Proposed Works*.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

(1) The *Owner* shall ensure that any person authorized to carry out work on or operate any aspect of the *Works* is notified of this *Certificate* and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

(2) Except as otherwise provided by these Conditions, the *Owner* shall design, build, install, operate and maintain the *Works* in accordance with the description given in this *Certificate*, the application for approval of the works and the submitted supporting documents and plans and specifications as listed in this *Certificate*.

(3) Where there is a conflict between a provision of any submitted document referred to in this *Certificate* and the Conditions of this *Certificate*, the Conditions in this *Certificate* shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the listed submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The requirements of this *Certificate* are severable. If any requirement of this *Certificate*, or the application of any requirement of this *Certificate* to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this certificate shall not be affected thereby.

2. EXPIRY OF APPROVAL

The approval issued by this *Certificate* will cease to apply to those parts of the *Works* which have not been constructed within five (5) years of the issuance date of this *Certificate*.

3. CHANGE OF OWNER

(1) The *Owner* shall notify the *District Manager* and the *Director*, in writing, of any of the following changes within 30 days of the change occurring:

(a) change of *Owner*;

(b) change of address of the *Owner*;

(c) change of partners where the *Owner* is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B17 shall be included in the notification to the *District Manager*;

(d) change of name of the corporation where the *Owner* is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C 39 shall be included in the notification to the *District Manager*;

(2) In the event of any change in ownership of the *Works*, other than a change to a successor municipality, the *Owner* shall notify in writing the succeeding owner of the existence of this *Certificate*, and a copy of such notice shall be forwarded to the *District Manager* and the *Director*.

4. SURFACE WATER MONITORING

(1) The *Owner* shall carry out the following surface water monitoring program. Surface water grab samples shall be collected during spring (April/May), Summer (August), and Fall (November) from the designated sampling locations and shall be analyzed for the parameters listed in Table 1.

Table 1 - Surface Water Monitoring
Sampling Locations: GS11, GS12, GS14

Parameter		Field Monitoring Parameter
Calcium	Silver	Conductivity (Field)
Magnesium	Strontium	pH (Field)
Sodium	Sulphur	Temperature
Potassium	Thallium	Dissolved Oxygen
Aluminum	Titanium	Water Levels***
Barium	Vanadium	
Beryllium	Zinc	
Boron	Alkalinity	
Cadmium	BOD5	
Chromium	TDS	
Cobalt	Chloride	
Copper	Nitrate	
Iron	Nitrite	
Lead	Sulphate	
Manganese	TKN	
Mercury	Ammonia	
Molybdenum	COD	
Nickel	DOC	
Total Phosphorus	Phenols	
Silicon	Hardness*	
	Un-ionized Ammonia**	

Note: * Hardness - calculated from laboratory analyses results of calcium and manganese
** Un-ionized Ammonia - calculated from laboratory analyses results for ammonia and field measurements for pH and temperature.
*** Water levels shall be measured at staff gauges installed for the designated sampling points.

(2) The *Owner* shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the surface water monitoring activities required by subsection (1)

5. GROUNDWATER MONITORING

(1) The *Owner* shall undertake groundwater monitoring in accordance with Conditions 46 (a) and 46 (c) of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time.

(2) The *Owner* shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the groundwater monitoring activities required by subsection (1)

6. OPERATIONS AND MAINTENANCE

(1) The *Owner* shall undertake an inspection of the condition of the stormwater management facility, at least once a year, and undertake any necessary cleaning and maintenance to prevent the excessive build-up of sediment and/or decaying vegetation.

(2) The *Owner* shall maintain a logbook to record the results of the stormwater management facility inspections and any cleaning and maintenance operations undertaken and shall keep the logbook at the site or operational office of the *Owner* for inspection by the Ministry.

(3) The *Owner* shall compare surface water monitoring results obtained from sampling point **GS12** under Condition 4 (1) with the concentrations of the trigger parameters listed in Table 2 to identify any potential leachate impact to surface water discharged from the site to the receiving stream.

Table 2 - Surface Water Trigger Parameters

Parameter	**Concentration** (mg/L)
Ammonia (un-ionized)	0.02
Boron	0.20
Iron	0.30
Total Phosphorus	0.05

(4) In the event that a monitoring result for any of the parameters listed in Table 2 exceeds its corresponding trigger concentration, the *Owner* shall immediately initiate the implementation of Condition 53 of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time.

(5) Surface water trigger parameters and concentrations outlined in Table 2 under subsection (3) shall be modified from time to time **only** after receiving a written concurrence from the *District Manager* or an approval from the Director designated for the purpose of Section 37 of the *Environmental Protection Act*.

7. REPORTING

(1) The *Owner* shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to *Ministry* staff.

(2) The *Owner* shall prepare, and submit to the *District Manager*, an annual performance report as a separate section of the annual report required under Condition 63 of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time. The first such report shall cover the first annual period following the commencement of operation of the *Works* and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all surface water monitoring data and comparison of results to the trigger concentrations outlined in Table 2 under Condition 6(3), including an overview of the success and adequacy of the

Works.

(b) a description of any operating problems encountered and corrective actions taken;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the *Works*;

(d) any other information the *District Manager* requires from time to time.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the *Works* are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the *Certificate* and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the owners their responsibility to notify any person they authorized to carry out work pursuant to this *Certificate* the existence of this *Certificate*.

2. Condition 2 is included to ensure that, when the *Works* are constructed, the *Works* will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is included to ensure that the *Ministry* records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the *Works* are made aware of the *Certificate* and continue to operate the *Works* in compliance with it.

4. Condition 4 and 5 are included to enable the *Owner* to evaluate and demonstrate the performance of the *Works*, on a continual basis, so that the *Works* are properly operated and maintained at a level which is consistent with the design objectives specified in the *Certificate* and that the *Works* does not cause any impairment to the receiving watercourse.

5. Condition 6 is included to require that the *Works* be properly operated, maintained, and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.

6. Condition 7 is included to provide a performance record for future references, to ensure that the *Ministry* is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this *Certificate,* so that the *Ministry* can work with the *Owner* in resolving any problems in a timely manner.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 53, *Ontario Water Resources Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this 24th day of June, 2005

Mohamed Dhalla, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

SH/
c: District Manager, MOE Cornwall
Gerry Lalonde, Stantec Consulting Limited

AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER A471203
Notice No. 3
Issue Date: December 20, 2018

The Corporation of the City of Clarence-Rockland
1560 Laurier St P.O. Box 909
Clarence-Rockland, Ontario
K4K 1P7

Site Location: City of Bourget Landfill
2335 Lalonde Rd
Clarence-Rockland City, United Counties of Prescott and Russell
K0A 2E0

You are hereby notified that I have amended Approval No. A471203 issued on October 21, 2009 and amended September 9, 2015 and August 19, 2016 for the use and operation of a 12 hectare landfilling area within a total site area of 50 hectares *, , as follows:*

The proposed amendment is approved to reflect the revised configuration of site facilities as described in Item 33 of Schedule "A".

The following item is added to Schedule "A" of this Approval:

33. Report titled "City of Clarence-Rockland Amendment to Landfill Environmental Compliance Approval A471203 , Landfill Site Entrance and Facilities Reconfiguration" and supporting documentation. Prepared by Stantec Consulting Ltd, August 24, 2018.

The reason for this amendment to the Approval is as follows:

The reason for this amendment is to reflect the updated site entrance and facilities reconfiguration.

This Notice shall constitute part of the approval issued under Approval No. A471203 dated October 21, 2009

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

a. The portions of the environmental compliance approval or each term or condition in the

environmental compliance approval in respect of which the hearing is required, and;

b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or** www.ert.gov.on.ca

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 20th day of December, 2018

Mohsen Keyvani, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

CF/
c: Area Manager, MECP Cornwall

c: District Manager, MECP Ottawa
Phillipe Cormier, The Corporation of the City of Clarence-Rockland

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER A471203
Notice No. 2
Issue Date: August 19, 2016

The Corporation of the City of Clarence-Rockland
1560 Laurier St
Clarence-Rockland, Ontario
K4K 1P7

iteCity of Clarence-Rockland Waste Disposal Site
Location: Lot 15, Concession 4
Clarence-Rockland City, United Counties of Prescott and Russell

*You are hereby notified that I have amended Approval No. A471203 issued on October 21, 2009 and amended on 9th day of September, 2015 for*the use and operation of a 12 hectare landfilling area within a total site area of 50 hectares*, as follows:*

Amendment to the Existing Approval of Sewage Works No. 3362-6D7PL4

2(17) The *Owner* shall submit an Application for amendment of the ECA No. 3362-6D7PL4, in order to amend this ECA and include the stormwater management works on the *Site* required due to the currently proposed *HHW* depot, new site entrance, weigh scales and other related works. This Application shall be submitted to the *Ministry* by December 31, 2016, as required under Section 20.2 of the EPA.

The reason for this amendment to the Approval is to extend the date to submit the application to amend the ECA No. 3362-6D7PL4.

This Notice shall constitute part of the approval issued under Approval No. A471203 dated October 21, 2009 as amended.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the

Environmental Protection Act.

DATED AT TORONTO this 19th day of August, 2016

Dale Gable, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

RM/
c: Area Manager, MOECC Cornwall
c: District Manager, MOECC Ottawa
Jocelyn Chabot, The Corporation of the City of Clarence-Rockland

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER A471203
Notice No. 1
Issue Date: September 9, 2015

The Corporation of the City of Clarence-Rockland
1560 Laurier Street
Clarence-Rockland, Ontario
K4K 1P7

Site Location: City of Clarence-Rockland Waste Disposal Site
Lot 15, Concession 4
City of Clarence-Rockland, United Counties of Prescott and Russell

You are hereby notified that I have amended Approval No. A471203 issued on October 21, 2009 for the use and operation of a 12 hectare landfilling area within a total site area of 50 hectares , as follows:

I. The following definitions are hereby added to the Environmental Compliance Approval No. A471203;

"*Certificate* " or "*Approval* " or "*Environmental Compliance Approval* " means this entire provisional Approval document, issued in accordance with section 39 of the *EPA*, and includes any schedules to it, the application and the supporting documentation listed in Schedule "A".

II. Condition 2(1) of the *Environmental Compliance Approval* No. A471203 is hereby amended by revising the *Site* Configuration such that the revised Condition 2(1) reads as follows;

Operation

2(1) The *Site* shall be operated and maintained at all times including management and disposal of all waste in accordance with the *EPA*, *Regulation 347*, the conditions of this *Approval*, and the Report listed as item No. 26 of the Schedule A (including the Site Entrance and Facilities Reconfiguration as shown on the Plan listed as item No. 27). At no time shall the discharge of a contaminant that causes or is likely to cause an adverse effect be permitted.

III. The following Condition 2(17) is added to the *Environmental Compliance Approval* No. A471203;

Amendment to the Existing Approval of Sewage Works No. 3362-6D7PL4

2(17) The *Owner* shall submit an Application for amendment of the ECA No. 3362-6D7PL4, in order to amend this ECA and include the stormwater management works on the *Site* required due to the currently proposed *HHW* depot, new site entrance, weigh scales and other related works. This Application shall be submitted to the Ministry by June 30, 2016, as required under Section 20.2 of the EPA.

IV. Condition 8(1) of the *Environmental Compliance Approval* No. A471203 is hereby amended by including the gas monitoring for Weigh Scale House, such that the revised Condition 8(1) reads as follows;

Landfill Gas

8(1) Routine monitoring for explosive methane gas levels shall be conducted in all buildings or structures at the *Site* and outside of the Weigh Scale House (as identified in the Figure 2 revised on August 28, 2015, and listed as item No. 32 of the Schedule A), especially enclosed structures which at times are occupied by people. If required, the *Owner* shall ensure that any buildings or structures at the *Site* contain adequate preventive measures to relieve any possible landfill gas accumulation.

V. Conditions 11(1) and 11(2) of the *Environmental Compliance Approval* No. A471203 are hereby amended such that the revised Conditions 11(1) and 11(2) read as follows;

Household Hazardous Waste (HHW) Depot

11(1) The *HHW* depot shall only accept household hazardous wastes and it shall be operated in accordance with the application for a Waste Disposal Site (Transfer) submitted on June 1, 1995 and supporting information, and as modified in the Design Operation and Maintenance Report, dated August 2000, and as amended by Report listed as item No. 26 of the Schedule A.

11(2) No household hazardous waste will be stored in *HHW* Depot for more than 90 days on the *Site.*

VI. The following Items are hereby added to Schedule "A" and form part of the *Environmental Compliance Approval* No. A471203;

25. Application for Amendment to the ECA #A471203 for Clarence-Rockland Landfill Entrance and Facilities Reconfiguration, dated June 1, 2015 and received on June 15, 2015, including supporting documentation.

26. Report entitled "City of Clarence-Rockland Amendment to Landfill *Environmental Compliance Approval,* Landfill Site Entrance and Facilities Reconfiguration, prepared by Stantec Consulting Ltd", dated March 6, 2015.

27. Figure 4 included in the Report listed as item No. 26, and entitled as "Site Layout - Landfill Site Entrance And Facilities Reconfiguration", signed/stamped by Gerry Lalonde Stantec Consulting Inc. on Jaunary 21, 2015.

28. Email from Gerry Lalonde Stantec Consulting Inc., dated August 12, 2015, addressed to Khalid Hussain, Ministry of the Environment and Climate Change, providing additional information regarding the amendment of the Sewage Works ECA No. 3362-6D7PL4.

29. Email from Gerry Lalonde Stantec Consulting Inc., dated August 14, 2015, addressed to Khalid Hussain, Ministry of the Environment and Climate Change, providing additional information supplementing the Report listed in item No. 25 of Schedule A.

30. Email from Denis Longpré,Manager of Environment and Water, Infrastructure and Engineering, City of Clarence-Rockland City, dated August 28, 2015, addressed to Khalid Hussain, Ministry of the Environment and Climate Change, providing additional information supplementing the Report listed in item No. 26 of Schedule A.

31. Email from Gerry Lalonde Stantec Consulting Inc., dated August 28, 2015, addressed to Khalid Hussain, Ministry of the Environment and Climate Change, regarding landfill gas monitoring adjacent to the Weigh Scale House, and regarding the approval application for Stormwater management works.

32. Revised Figure 2 included in the Email listed as item No. 31, and entitled as "Weigh Scale House Floor Plan - Landfill Site Entrance And Facilities Reconfiguration", submitted by Gerry Lalonde Stantec Consulting Inc. on August 28, 2015.

The reason(s) for this amendment to the Approval is (are) as follows:

1. The reason for amending Condition 2(1), 11(1) and 11(2) of the *Approva* l is as follows:
all in accordance with the application for approval dated June 1, 2015 and received on June 15, 2015, and including supporting documentation.

2. The reasons for Condition 8(1) is to ensure that off site migration of landfill gas is monitored and all buildings at the *Site* are free of any landfill gas accumulation, which due to a methane gas component may be explosive and thus create a danger to any persons at the *Site*

3. The reason for adding Condition No. 2(17) is to ensure that the Approval for the site stormwater management works is updated to include the stormwater from the proposed new infrastructure and that the site sewage works are constructed and operated in accordance with the Approval from the Ministry as required under the Environmental Protection Act.

This Notice shall constitute part of the approval issued under Approval No. A471203 dated October 21, 2009.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in

respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 9th day of September, 2015

THIS NOTICE WAS MAILED
ON Sept. 14, 2015
(Signed)

Dale D. Gable

Dale Gable, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

KH/
c: Area Manager, MOECC Cornwall Area Office.
c: District Manager, MOECC Ottawa District.
Gerry Lalonde, P.Eng., Stantec Consulting Ltd.✓

REÇU
30 OCT. 2009
CITÉ CLARENCE-ROCKLAND

Ontario

Ministry of the Environment
Ministère de l'Environnement

AMENDED PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE
NUMBER A471203
Issue Date: October 21, 2009

The Corporation of the City of Clarence Rockland
1560 Laurier St Rockland, Ontario
The City of Clarence Rockland, Ontario
K4K 1P7

Site Location: Lot 15, Concession 4
The City of Clarence Rockland, United Counties of Prescott and Russell

You have applied in accordance with Section 27 of the Environmental Protection Act for approval of:

the use and operation of a 12 hectare landfilling area within a total site area of 50 hectares, as follows:

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

"*Certificate* " means this entire provisional Certificate of Approval document, issued in accordance with section 39 of the *EPA,* and includes any schedules to it, the application and the supporting documentation listed in Schedule "A";

"*Director*" means any *Ministry* employee appointed in writing by the Minister pursuant to section 5 of the EPA as a Director for the purposes of Part V of the *EPA;*

"*District Manager*" means the District Manager of the local district office of the *Ministry* in which the *Site* is geographically located;

"*EPA* " means *Environmental Protection Act* , R.S.O. 1990, c. E. 19, as amended;

"*HHW* " means household hazardous waste;

"*Ministry*" means the Ontario Ministry of the Environment;

"*NMA* " means *Nutrient Management Act* , 2002, S.O. 2002, c. 4, as amended from time to time;

"*Operator*" means any person, other than the Owner's employees, authorized by the *Owner* as having the charge, management or control of any aspect of the *Site* and includes its successors or assigns;

"*Owner*" means any person that is responsible for the establishment or operation of the *Site* being approved by this *Certificate,* and includes the Corporation of the City of Clarence Rockland and assigns;

"*OWRA* " means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;

"*PA* " means the *Pesticides Act* , R.S.O. 1990, c. P-11, as amended from time to time;

"Provincial Officer" means any person designated in writing by the Minister as a provincial officer pursuant to Section 5 of the *OWRA* or Section 5 of the *EPA* or Section 17 of *PA* or Section 4 of *NMA* or Section 8 of *SDWA* .

"*Regional Director* " means the Regional Director of the local Regional Office of the *Ministry* in which the *Site* is located.

"*Regulation 347* " or "*Reg. 347* " means Regulation 347, R.R.O. 1990, made under the EPA, as amended from time to time;

"*SDWA*" means *Safe Drinking Water Act,* 2002, S.O. 2002, c. 32, as amended;

"*Site* " means the entire waste disposal site, including the buffer lands, contaminant attenuation zone, hazardous waste depot/transfer station and associated buildings and facilities at Lot 15, Concession 4, The City of Clarence Rockland, United Counties of Prescott and Russell; and

"Trained personnel" means knowledgeable in the following through instruction and/or practice:

a. relevant waste management legislation, regulations and guidelines;
b. major environmental concerns pertaining to the waste to be handled;
c. occupational health and safety concerns pertaining to the processes and wastes to be handled;
d. management procedures including the use and operation of equipment for the processes and wastes to be handled;
e. emergency response procedures;
f. specific written procedures for the control of nuisance conditions;
g. specific written procedures for refusal of unacceptable waste loads; and
h. the requirements of this *Certificate.*

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

Compliance

(1) The *Owner* and *Operator* shall ensure compliance with all the conditions of this

Certificate and shall ensure that any person authorized to carry out work on or operate any aspect of the *Site* is notified of this *Certificate* and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

(2) Any person authorized to carry out work on or operate any aspect of the *Site* shall comply with the conditions of this *Certificate* .

In Accordance

(3) Except as otherwise provided by this *Certificate,* the *Site* shall be designed, developed, built, operated and maintained in accordance with the documentation listed in the attached Schedule "A".

Interpretation

(4) Where there is a conflict between a provision of any documents listed in Schedule "A" in this *Certificate,* and the conditions of this *Certificate,* the conditions in this *Certificate* shall take precedence.

(5) Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and that the *Ministry* approved the amendment.

(6) Where there is a conflict between any two documents listed in Schedule "A", the document bearing the most recent date shall take precedence.

(7) The conditions of this *Certificate* are severable. If any condition of this *Certificate,* or the application of any condition of this *Certificate* to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this *Certificate* shall not be affected thereby.

Other Legal Obligations

(8) The issuance of, and compliance with, this *Certificate* does not:

(a) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or

(b) limit in any way the authority of the *Ministry* to require certain steps be taken or to require the *Owner* and *Operator* to furnish any further information related to compliance with this *Certificate* .

Adverse Effect

(9) The *Owner* and *Operator* shall take steps to minimize and ameliorate any adverse effect on the natural environment or impairment of water quality resulting from the *Site,*

including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

(10) Despite an *Owner, Operator* or any other person fulfilling any obligations imposed by this *Certificate, the Owner, Operator or* any other person remains responsible for any contravention of any other condition of this *Certificate* or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect to the natural environment or impairment of water quality.

Change of Ownership

(11) The *Owner* shall notify the *Director,* in writing, and forward a copy of the notification to the *District Manager,* within 30 days of the occurrence of any changes in the following information:

(a) the ownership of the *Site;*
(b) the *Operator* of the *Site;*
(c) the address of the *Owner or Operator;* and
(d) the partners, where the *Owner or Operator* is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act* , R. S. O. 1990, c. B.17, shall be included in the notification.

(12) No portion of this *Site* shall be transferred or encumbered prior to or after closing of the *Site* unless the *Director* is notified in advance and sufficient financial assurance is deposited with the *Ministry* to ensure that these conditions will be carried out.

(13) In the event of any change in *Ownership* of the works, other than change to a successor Owner, the *Owner* shall notify the successor of and provide the successor with a copy of this *Certificate,* and the *Owner* shall provide a copy of the notification to the *District Manager* and the *Director.*

Certificate of Requirement/Registration on Title

(14) The Owner shall:

(a) Within 60 days of the date of the issuance of this *Certificate,* submit to the *Director* for review, two copies of a completed Certificate of Requirement with a registerable description of the *Site;* and

(b) Within 10 calendar days of receiving the Certificate of Requirement authorized by the *Director,* register the Certificate of Requirement in the appropriate Land Registry Office on title to the *Site* and submit to the *Director* the duplicate registered copy immediately following registration.

(15) Pursuant to Section 197 of the Environmental Protection Act, neither the *Owner* nor any person having an interest in the *Site* shall deal with the *Site* in any way without first

giving a copy of this *Certificate* to each person acquiring an interest in the *Site* as a result of the dealing.

Inspections by the Ministry

(16) No person shall hinder or obstruct a *Provincial Officer* from carrying out any and all inspections authorized by the *OWRA, the EPA,* the *PA,* the *SDWA* or the *NMA,* of any place to which this *Certificate* relates, and without limiting the foregoing:

(a) to enter upon the premises where the approved works are located, or the location where the records required by the conditions of this *Certificate* are kept;

(b) to have access to, inspect, and copy any records required to be kept by the conditions of this *Certificate;*

(c) to inspect the *Site,* related equipment and appurtenances;

(d) to inspect the practices, procedures, or operations required by the conditions of this *Certificate;* and

(e) to sample and monitor for the purposes of assessing compliance with the terms and conditions of this *Certificate* or the *EPA,* the *OWRA,* the *PA,* the *SDWA* or the *NMA.*

Information and Record Retention

(17) Any information requested, by the *Ministry,* concerning the *Site* and its operation under this *Certificate,* including but not limited to any records required to be kept by this *Certificate* shall be provided to the *Ministry,* upon request, in a timely manner.

(18) The receipt of any information by the *Ministry* or the failure of the *Ministry* to prosecute any person or to require any person to take any action, under this *Certificate* or under any statute, regulation or other legal requirement, in relation to the information, shall not be construed as:

(a) an approval, waiver, or justification by the *Ministry* of any act or omission of any person that contravenes any term or condition of this *Certificate* or any statute, regulation or other legal requirement; or

(b) acceptance by the *Ministry* of the information's completeness or accuracy.

(19) The *Owner* shall ensure that a copy of this *Certificate,* in its entirety and including all its Notices of Amendment, and the most current approved Design and Operation Plan for the *Site,* are retained at the *Site* at all times.

2. SITE OPERATION

Operation

(1) The *Site* shall be operated and maintained at all time including management and disposal of all waste in accordance with the *EPA, Regulation 347,* and the conditions of this *Certificate.* At no time shall the discharge of a contaminant that causes or is likely to

cause an adverse effect be permitted

Signs

(2) A sign shall be installed and maintained at the main entrance/exit to the *Site* on which is legibly displayed the following information:
- (a) the name of the *Site* and *Owner;*
- (b) the number of the *Certificate;*
- (c) the name of the *Operator;*
- (d) the normal hours of operation;
- (e) the allowable and prohibited waste types;
- (f) the telephone number to which complaints may be directed;
- (g) a warning against unauthorized access;
- (h) a twenty-four (24) hour emergency telephone number (if different from above); and
- (i) a warning against dumping outside the *Site.*

(3) The *Owner* shall install and maintain signs to direct vehicles to working face, recycling areas, *HHW* depot and composting area.

(4) The *Owner* shall provide signs at recycling depot, *HHW* depot and composting area informing users what materials are acceptable and directing users to appropriate storage area.

Vermin, Vectors, Dust, Litter, Odour, Noise and Traffic

(5) The *Site* shall be operated and maintained such that the vermin, vectors, dust, litter, odour, noise and traffic do not create a nuisance.

Burning Waste Prohibited

(6) The *Owner* shall ensure that no burning of wastes and wood products is taking place at the *Site.*

Scavenging

(7) Except as authorized by a by-law, the *Owner* shall ensure that no scavenging is taking place at the *Site.*

Site Access

(8) Waste shall only be accepted at the *Site* from the City of Clarence Rockland and Wards 2 and 4 of the Township of Alfred Plantagenet.

(9) Waste shall only be accepted from 8:00 a.m. to 5:00 p.m. The Site shall be closed on

Sundays and Holidays. The *Owner* may provide alternative hours of operation within the above hours provided that they are correctly posted at the *Site,* that suitable public notification is given of any change.

(10) On-site equipment used for daily site preparation and closing activities may be operated one (1) hour before and two (2) hours after the hours of operation approved by this *Certificate.*

(11) With the prior written approval from the *District Manager,* the time periods may be extended to accommodate seasonal or unusual quantities of waste.

Site Security

(12) No waste shall be received, landfilled or removed from the *Site* unless the operator or attendant is present and supervises the operations during operating hours. The *Site* shall be closed when a site operator is not present to supervise landfilling operations.

(13) The *Site* shall be operated and maintained in a safe and secure manner. During non-operating hours, the *Site* entrance and exit gates shall be locked.

Visual Screening

(14) The *Owner* shall maintain the screening berm constructed along Lalonde Road as per Drawing No. I-3-3 entitled "Waste Contours" and Drawing No. I-3-9 entitled "Road and Berm Sections"of Item 18(a) of Schedule "A" attached to this *Certificate.*

(15) The *Owner* shall maintain the trees providing the screening of the *Site* operations from Lalonde Road in the area east of the entrance.

3. EMPLOYEE TRAINING

(1) A training plan for all employees that operate any aspect of the *Site* shall be developed and implemented by the *Operator.* Only *Trained Personnel* shall operate any aspect of the *Site* or carry out any activity required under this *Certificate* .

(2) All *Trained* Personnel operating the *HHW* depot shall be trained in the following areas:

(a) waste paint identification, analysis information and separating procedures for the wastes being handled at the *HHW* depot;

(b) proper storage, handling, sorting and shipping procedures of the wastes being handled at the *HHW* depot; and

(c) occupational health and safety concerns pertaining to the wastes to be handled at the *HHW* depot.

4. COMPLAINTS RESPONSE PROCEDURE

(1) If at any time the *Owner* receives complaints regarding the operation of the *Site,* the *Owner* shall respond to these complaints according to the following procedure:

(a) The *Owner* shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information and the time and date of the complaint;

(b) The *Owner,* upon notification of the complaint, shall initiate appropriate steps to determine all possible causes of the complaint, proceed to take the necessary actions to eliminate the cause of the complaint and forward a formal reply to the complainant; and

(c) The *Owner* shall complete and retain on-site a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

5. EMERGENCY RESPONSE

(1) Any spills, fires or other emergency situations shall be forthwith reported directly to the *Ministry's* Spills Action Centre (1-800-268-6060) and shall be cleaned up immediately.

(2) In addition, the *Owner* shall submit, to the *District Manager* a written report within five (5) business days of the emergency situation, outlining the nature of the incident, remedial measures taken, handling of waste generated as a result of the emergency situation and the measures taken to prevent future occurrences at the *Site.*

(3) All wastes resulting from an emergency situation shall be managed and disposed of in accordance with *O.Reg. 347.*

(4) All equipment and materials required to handle the emergency situations shall be:

(a) kept on hand at all times that waste landfilling and/or handling is undertaken at the *Site;* and

(b) adequately maintained and kept in good repair.

(5) The *Owner* shall ensure that the emergency response personnel are familiar with the use of such equipment and its location(s).

6. RECORD KEEPING AND REPORTING

Daily Log Book

(1) A daily log shall be maintained in written format and shall include the following information:

(a) the type, date and time of arrival, hauler (commercial waste), and quantity (tonnes or volume) of all waste and cover material received at the *Site;*

(b) documentation of types, quantities and source of generation of waste received at the *HHW* depot;

(c) type, amount and source of waste refused at the *HHW* depot;

(d) the area of the *Site* in which waste disposal operations are taking place;

(e) a record of litter collection activities and the application of any dust suppressants;

(f) a record of the daily inspections; and

(g) a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service.

(2) Any information requested, by the *Director* or a *Provincial Officer,* concerning the *Site* and its operation under this *Certificate,* including but not limited to any records required to be kept by this *Certificate* shall be provided to the *Ministry,* upon request.

Daily Inspections and Log Book

(3) An inspection of the entire *Site* and all equipment on the *Site* shall be conducted weekly the *Site* is in operation to ensure that: the *Site* is secure; that the operation of the *Site* is not causing any nuisances; that the operation of the *Site* is not causing any adverse effects on the environment and that the *Site* is being operated in compliance with this *Certificate.* Any deficiencies discovered as a result of the inspection shall be remedied within a reasonable time, including temporarily ceasing operations at the *Site* if needed.

(4) A record of the inspections shall be kept in a daily log book that includes:

(a) the name and signature of person that conducted the inspection;

(b) the date and time of the inspection;

(c) the list of any deficiencies discovered;

(d) the recommendations for remedial action; and

(e) the date, time and description of actions taken.

(5) A record shall be kept in the daily log book of all refusals of waste shipments, the reason(s) for refusal, and the origin of the waste, if known.

Annual Report

(6) A written report on the development, operation and monitoring of the *Site,* shall be

completed annually (the "Annual Report"). The Annual Report shall be submitted to the *District Manager,* by March 30 of the year following the period being reported upon.

(7) The Annual Report shall include the following:

(a) calculations of the volume of waste landfilled, the daily and intermediate covers, the final cover and the overall volume of the site capacity used during the reporting period;

(b) a comparison of the actual capacity used to the estimates of the capacity estimated;

(c) an estimate of the remaining site life;

(d) any changes in operations, equipment, or procedures used at the *Site,* any operating problems encountered and corrective actions taken;

(e) details on the monitoring program undertaken, outlining monitor locations, analytical parameters sampled, and frequency of sampling;

(f) an analysis and interpretation of the surface water and groundwater monitoring data, a review of the adequacy of the monitoring program, conclusions of the monitoring data, and recommendations for any changes that may be necessary;

(g) summary of inspections undertaken at the *Site;*

(h) summary of any public complaints received and the responses made;

(i) summary of activities undertaken at the *HHW* depot;

(j) a discussion of cover stockpile activities including use, timing, locations and erosion protection;

(k) status update on the final cover placement, and seeding activities undertaken in the closed sections of the Landfill;

(l) a discussion of the waste diversion performance achieved by the *Owner* reported on a per capita basis;

(m) a statement as to compliance with all conditions of this *Certificate* and the other relevant Ministry's groundwater and surface water requirements;

(n) recommendations respecting any proposed changes in the operation of the *Site;* and

(o) any other information that the *Regional Director* or the *District Manager* may require.

7. LANDFILL DESIGN AND DEVELOPMENT

Approved Waste Types

(1) Only solid non-hazardous municipal waste including asbestos, dewatered sewage sludge and contaminated soil as defined under *Reg.* 347 shall be accepted at the *Site* for landfilling.

(2) No liquid industrial waste or hazardous wastes as defined under O. Reg. 347 and O.Reg. 558 shall be disposed at the *Site.*

(3) The *Owner* may continue to accept liquid and solid household hazardous wastes and products requiring special handling or disposal practices, at the *HHW* depot.

(4) The *Owner* shall develop and implement a program to inspect waste to ensure that the waste received at the *Site* is of a type approved for acceptance under this *Certificate.*

(5) The *Owner* shall ensure that all loads of waste are properly inspected by *Trained personnel* prior to acceptance at the *Site* and that the waste vehicles are directed to the appropriate areas for disposal or transfer of the waste. The *Owner* shall notify the *District Manager,* in writing, of load rejections at the *Site* within five (5) business days from their occurrence.

Capacity

(6) (a) As approved by the Environmental Assessment dated October 21, 1999, the total additional waste disposal capacity of the expanded Site is 740,000 cubic metres of waste, daily cover and intermediate cover, but excluding the final cover.

(b) The total approved waste disposal capacity for the Site is 974,000 cubic metres of waste, daily cover and intermediate cover, but excluding the final cover. This total waste disposal capacity includes the additional disposal capacity from Condition (6)(a), above, and the waste disposed of prior to the above Environmental Assessment approval.

Waste Placement

(7) No waste shall be placed below existing ground within the fill area to maintain a vertical separation between the groundwater table and the waste.

(8) Disposal of waste shall only occur within the areas as delineated on Drawing - Fig. No. I-3-3 of Item 18(a) of Schedule "A" attached to this *Certificate.*

(9) No waste shall be placed above the final contours shown on Drawing - Fig. No. I-3-4 of Item 18(a) of Schedule "A" attached to this *Certificate.*

Service Area

(10) Only waste that is generated within the boundaries of the City of Clarence Rockland and Wards 2 and 4 of the Township of Alfred Plantagenet may be accepted at the *Site.*

Cover

(11) Daily and interim cover material shall be applied in accordance with Section 3.3 of Item 14(a) of Schedule "A" attached to this *Certificate* and as follows:

Daily cover

(a) By the end of each working day, the entire working face shall be covered with a minimum thickness of 100 mm of daily cover.

Interim cover

(b) In areas where landfilling has been temporarily discontinued for twelve (12) months or more, a minimum thickness of 300 mm of intermediate cover shall be placed.

Final Cover

(c) Final Cover - In areas where landfilling has been completed to final contours, a minimum 600 millimetre thick layer of soil of medium permeability and 150 millimetres of top soil (final cover) shall be placed. Fill areas shall be progressively completed and rehabilitated as landfill development reaches final contours.

(12)

(a) Contaminated soil that is not a hazardous waste as defined by O.Reg. 347, either mixed with clean soil or own its own, and biosolids from the City of Clarence Rockland's Water Pollution Control Plant mixed with soil, compost and/or wood chips, may be used as daily cover provided that its use does not cause any adverse effects;

(b) Subject to Condition 12 (a), if the application of the contaminated soil as a daily cover causes operational problems, odours or other environmental adverse effects as verified by a *Provincial Officer,* the use of the contaminated soil shall be immediately discontinued and only clean soil or biosolids mixed with soil, compost and/or wood chips shall be used as daily cover;

(c) Subject to Condition 12 (a), if the application of the biosolids as a daily cover causes operational problems, odours or other environmental adverse

effects as verified by a *Provincial Officer,* the use of the biosolids shall be immediately discontinued;

(d) Compost mixed with clean soil and wood chips mixed with clean soil may also be used as alternative material for daily cover; and

(e) The *Owner* may mix de-watered sludge with the topsoil. The sludge shall be accounted for in the total volume of waste that was approved for landfilling at the *Site.* If the use of de-watered sludge causes an adverse effect, as verified by a *Provincial Officer,* its use shall be discontinued and only clean soil shall be used.

(13) Except for the types already approved by Condition 7(12). any alternative materials to soil may be used as weekly and interim cover material, based on an application with supporting information and applicable fee for a trial use or permanent use, submitted by the *Owner* to the *Director,* copied to the *District Manager* and as approved by the *Director* via an amendment to this *Certificate.* The alternative material shall be non-hazardous according to *Reg. 347* and will be expected to perform at least as well as soil in relation to the following functions:

(a) Control of blowing litter, odours, dust, landfill gas, gulls, vectors, vermin and fires;
(b) Provision for an aesthetic condition of the landfill during the active life of the *Site;*
(c) Provision for vehicle access to the active tipping face; and
(d) Compatibility with the design of the *Site* for groundwater protection, leachate management and landfill gas management.

8. LANDFILL MONITORING

Landfill Gas

(1) Routine monitoring for explosive methane gas levels shall be conducted in all buildings or structures at the *Site,* especially enclosed structures which at times are occupied by people. If required, the *Owner* shall ensure that any buildings or structures at the *Site* contain adequate preventive measures to relieve any possible landfill gas accumulation.

(2) Landfill gas monitoring shall be undertaken according to the program described in Section 5.4 of Item 18(a) of Schedule "A" attached to this *Certificate.*

(3) Any changes to the landfill gas monitoring program shall be submitted to the *Director* for approval, prior to their implementation.

Compliance Limits

(4) The *Site* shall be operated in such a way as to ensure compliance with the following:

(a) Reasonable Use Guideline B-7 for the protection of the groundwater at the *Site;* and

(b) Provincial Water Quality Objectives included in the July 1994 publication entitled *Water Management Policies, Guidelines, Provincial Water Quality Objectives,* as amended from time to time or limits set by the *Regional Director,* for the protection of the surface water.

Surface Water and Ground Water

(5) The *Owner* shall monitor groundwater as per Appendix G, Item 24 of Schedule "A".

(6) The Owner shall monitor surface water as per Appendix G, Item 24 of Schedule "A".

(7) A certified Professional Geoscientist or Engineer possessing appropriate hydrogeologic training and experience shall execute or directly supervise the execution of the groundwater monitoring and reporting program.

(8). The *Owner* shall abide by the Certificate of Approval for Sewage Works under Section 53 of *Ontario Water Resources Act* , R.S.O. 1990 issued to construct, operate, maintain and monitor the proposed wetland and its discharge to the surface water regime, designed to control and treat storm water run-off and leachate-impacted groundwater at the *Site.*

(9) Temporary berms and ditches shall be constructed around the active waste disposal area, as necessary, to prevent extraneous surface water from contacting the active working face.

Groundwater Wells and Monitors

(10) The *Owner* shall ensure that all groundwater monitoring wells which form part of the monitoring program are properly capped, locked and protected from damage.

(11) Where landfilling is to proceed around monitoring wells, suitable extensions shall be added to the wells and the wells shall be properly re-secured.

(12) Any groundwater monitoring well included in the on-going monitoring program that are damaged shall be assessed, repaired, replaced or decommissioned by the *Owner,* as required.

(a) Unless a well is being abandoned, the *Owner* shall repair or replace any monitoring well which is destroyed or in any way made to be inoperable for sampling such that no more than one regular sampling event is missed.

(b) All monitoring wells which are no longer required as part of the groundwater

monitoring program, and have been approved by the *District Manager* for abandonment, shall be decommissioned by the *Owner,* as required, in accordance with *O.Reg. 903,* that will prevent contamination through the abandoned well. A report on the decommissioning of the well shall be included in the Annual Report for the period during which the well was decommissioned.

Trigger Mechanisms and Contingency Plans

(13) (a) The *Owner* shall follow the site-specific trigger mechanism program for groundwater contingency measures outlined in Appendix A, Item 20 of Schedule "A" and as revised by MOE correspondence in Appendix "A", Item 23 of Schedule "A".

(b) The *Owner* shall follow the site-specific trigger mechanism program for surface water contingency measures outlined in Appendix A of Item 20 of Schedule "A" and as revised by MOE correspondence in Appendix "A", Item 23 of Schedule "A".

(14) No changes to the site-specific trigger mechanism shall be implemented prior to receiving approval from the *Director.*

(15) In the event of a confirmed exceedence of a site-specific trigger level relating to leachate mounding or groundwater or surface water impacts due to leachate, the *Owner* shall immediately notify the *District Manager,* and an investigation into the cause and the need for implementation of remedial or contingency actions shall be carried out by the *Owner* in accordance with the approved trigger mechanisms and associated contingency plans.

(16) If monitoring results, investigative activities and/or trigger mechanisms indicate the need to implement contingency measures, the *Owner* shall ensure that the following steps are taken:

(a) The *Owner* shall notify the *District Manager,* in writing of the need to implement contingency measures, no later than 30 days after confirmation of the exceedences;
(b) Detailed plans, specifications and descriptions for the design, operation and maintenance of the contingency measures shall be prepared and submitted by the *Owner* to the *District Manager* for approval; and
(c) The contingency measures shall be implemented by the *Owner* upon approval by the *District Manager* .

(17) The *Owner* shall ensure that any proposed changes to the site-specific trigger levels for leachate impacts to the surface water or groundwater, are approved in advance by the *Director* via an amendment to this *Certificate.*

Changes to the Monitoring Plan

(18) The *Owner* may request to make changes to the monitoring program(s) to the *District Manager* in accordance with the recommendations of the annual report. The *Owner* shall make clear reference to the proposed changes in separate letter that shall accompany the annual report.

(19) Within sixty (60) days of receiving the written correspondence from the *District Manager* confirming that the *District Manager* is in agreement with the proposed changes to the environmental monitoring program, the *Owner* shall forward a letter identifying the proposed changes and a copy of the correspondences from the *District Manager* and all other correspondences and responses related to the changes to the monitoring program, to the *Director* requesting the *Certificate* be amended to approve the proposed changes to the environmental monitoring plan prior to implementation.

(20) In the event any other changes to the environmental monitoring program are proposed outside of the recommendation of the annual report, the *Owner* shall follow current ministry procedures for seeking approval for amending the *Certificate.*

9. CLOSURE PLAN

(1) At least two (2) years prior to the anticipated date of closure of this *Site,* the *Owner* shall submit to the *Director* for approval, with copies to the *District Manager,* a detailed *Site* closure plan pertaining to the termination of landfilling operations at this *Site,* post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following:

- (a) a plan showing *Site* appearance after closure;
- (b) a description of the proposed end use of the *Site;*
- (c) a descriptions of the procedures for closure of the *Site,* including:
  - (i) advance notification of the public of the landfill closure;
  - (ii) posting of a sign at the *Site* entrance indicating the landfill is closed and identifying any alternative waste disposal arrangements;
  - (iii) completion, inspection and maintenance of the final cover and landscaping;
  - (iv) *Site* security;
  - (v) removal of unnecessary landfill-related structures, buildings and facilities;
  - (vi) final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; and
  - (vii) a schedule indicating the time-period for implementing sub-conditions (i) to (vi) above;
- (d) descriptions of the procedures for post-closure care of the *Site,* including:
  - (i) operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
  - (ii) record keeping and reporting; and

(iii) complaint contact and response procedures;

(e) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas; and

(f) an updated estimate of the contaminating life span of the *Site,* based on the results of the monitoring programs to date.

(2) Unless amended by the closure plan, closure of the Landfill will be done in accordance with the final contours shown on Figure I-3-4 of Item 18(a) of Schedule "A" attached to this *Certificate.*

(3) The *Site* shall be closed in accordance with the closure plan as approved by the *Director.*

10. WASTE DIVERSION

(1) The *Owner* shall direct as much waste from landfilling as is practical and affordable with a view to meeting the Provincial Waste Diversion Objectives, developed by the *Ministry* and as changed from time to time.

(2) The *Owner* shall submit an annual Waste Diversion Statement as part of its Annual Report described in Condition No. 6 (6), and include the following:

(a) updating summary of per capita waste diversion activities and quantities of waste diverted from disposal; and

(b) proposed waste diversion program for the next year that describes estimates of waste to be diverted.

11. HOUSEHOLD HAZARDOUS WASTE DEPOT

(1) The *HHW* depot shall only accept household hazardous wastes and it shall be operated in accordance with the application for a Waste Disposal Site (Transfer) submitted June 1, 1995 and supporting information and as modified in the Design Operation and Maintenance Report, dated August 2000.

(2) No wastes shall be received at the *HHW* depot prior to April 1, or after October 31 and no waste shall be stored at the *HHW* depot from December 31 to March 31.

(3) (a) No PCB's shall be accepted at this *HHW* depot. Oil and oil-based paints which have been manufactured prior to 1972, or whose manufacturing date cannot be determined may contain PCB's and shall be handled in the manner prescribed:

(i) The oil and oil-based paints shall not be mixed (bulked) with other paints prior to testing. Paints which are lab-packed are not considered to be mixed under this *Certificate.*

(ii) The oil and oil-based paints shall be tested for PCB's content and shall be handled in the manner outlined in sub condition (a)(iii) if found to contain PCB's.

(iii) If the oil and oil-based paints are found to have PCB's at or above levels identified in sub condition (a) (iv) , it shall be forthwith reported to the *District Manager* and shall be managed in accordance with Ontario Regulation 362/92 and stored or removed from the *HHW* depot to an approved PCB's storage site, in accordance with written instructions from the *District Manager.*

(iv) The oil and oil-based paints shall not be distributed for reuse if they have any measurable PCB's content. The oil and oil-based paint is considered to be a PCB's waste, if measured levels are equal to or greater than 50 parts per million.

(b) Except as specified in sub condition (a) (iv) , paints collected at the *HHW* depot may be returned or sold to the general public for reuse provided all transactions are recorded by invoice. Information on the type and volume of paint returned to the public through this *HHW* depot shall be recorded in the report specified in Condition No. 6 (6).

Storage

(4) (a) The *Owner* shall ensure that the wastes are stored in a safe and secure manner, that the operation of the *HHW* depot does not interfere with any other activities undertaken at the *Site* and that the wastes are properly handled, packaged or contained so as not to pose any threat to the general public, Site personnel and the environment.

(b) No storage facilities other than those approved under this *Certificate* shall be used and fixed storage facilities shall not be moved, replaced or altered.

(c) All storage buildings and tanks shall be clearly marked indicating the type and nature of the hazardous waste stored. All points of access to the storage facilities shall be posted to warn that the area contains hazardous materials. Smoking restrictions shall be adhered to and non-smoking signs shall be posted as required by Regulation.

(d) All storage buildings shall be properly ventilated and shall be constructed in compliance with fire regulations, municipal by-laws and approvals and in accordance with Ministry of Labour guidelines.

(e) All household hazardous waste storage tanks and buildings shall be maintained

under lock and key and access to these facilities shall be limited to trained Site personnel.

(5) Wastes that are collected and stored shall be in amounts which can be safely handled at the *HHW* depot. In the event that larger amounts are received than anticipated, the *Owner* shall have extra drums and lab-packed containers available on the premises for the storage of the additional waste collected. When the *HHW* depot capacity is reached, the *Owner* shall make arrangements for the removal of waste from the *HHW* depot as soon as possible, but in any event, within five (5) working days.

(6) Except as specified under Conditions 11(3)(a)(iii) and (b), all waste collected shall be transported from the *Site* by an approved waste management system and disposed of at waste landfill, transfer and processing sites certified to accept these types of wastes.

12. COMPOSTING

(1) Composting operations at the *Site* shall be carried out in a manner as not to interfere with normal waste disposal operations as approved in this *Certificate.*

(2) Should the ensuing compost be destined for use by the general public, composting operations at the *Site* shall be carried out in accordance with the Ministry's *Interim Guidelines for the Production and Use of Aerobic Compost in Ontario* , dated November 1991, and revised from time to time.

(3) Should the ensuing compost be destined for use as alternative cover material at the *Site,* composting operations at the *Site* must be carried out in a manner that does not cause groundwater or surface water contamination, offensive odours or encourage the presence of vermin or any other adverse effect.

13. LIAISON COMMITTEE

(1) The *Owner* shall take all reasonable steps to establish, maintain and participate in a Site Liaison Committee, which is to function within the Terms of Reference, as proposed in Appendix C of Item 18(a) of Schedule "A" attached to this Certificate. The public shall be given an opportunity to comment and provide input before the Terms of Reference are finalized and ready for implementation. The Terms of Reference shall be amended from time to time according to an appropriate procedures included in the Terms of Reference.

(2) A copy of the Terms of Reference shall be provided to the *District Manager.*

(3) The Site Liaison Committee shall serve as a focal point for dissemination, consultation, review and exchange of information regarding the operation of the *Site,* results of the environmental monitoring, maintenance, complaint resolution and any new approvals or amendments to the existing approvals related to the operation of this *Site.*

SCHEDULE "A"

1. Application for a Certificate of Approval for a Waste Disposal Site, signed by Marco Lalonde , Township of Clarence, and dated July 22, 1992, for an interim expansion of the landfill with the following supporting documentation prepared by McNeely Engineering Consultants Limited and Golder Associates Limited:

   (a) Volume I - Request for Exemption Environmental Assessment Act, dated September 1992
   (b) Volume II - Site Hydrogeology, dated July 1992
   (c) Volume III - Site operations, Development and Closure Plans, dated July 1992
   (d) Volume IV - Natural Environmental Evaluation, dated July 1992
   (e) resolution #5259

2. Report entitled "Hydrogeological Activities, September 1992 to November 1992, Landfill Site Lot 15, Concession IV, Township of Clarence, Ontario" prepared by Golder Associates Limited and dated January 1993.

3. Reply to MOEE Comments on Interim Expansion Township of Clarence Landfill Site, prepared by the Township of Clarence and dated May 4, 1993.

4. Application for a Certificate of Approval for a Waste Disposal Site, signed by Marco Lalonde, Township of Clarence, and dated October 6, 1993, for an interim expansion of the landfill.

5. Letter from Gerry Lalonde, McNeely Engineering Consultants Limited to E. Zaltsberg Ministry of the Environment, dated October 15, 1993, to further clarify the changes in the landfill size and in the total site size.

6. Report entitled "1993 Site Operations and Hydrogeological Monitoring Program, Landfill Site Lot 15, Concession IV, Township of Clarence, Ontario", dated January 1994 and prepared by Golder Associates Ltd.

7. Report entitled "Addendum Report on Waste Management and Hydrogeological Issues and Comments on Draft Certificate of Approval Application for interim Expansion Landfill Site, Lot 15, Concession IV, Township of Clarence, Ontario", dated March 1994 and prepared by Golder Associates Limited and McNeely Engineering Consultants Limited and revised Figure 2: "Site Plan and Study Area", dated March 22, 1994.

8. Report entitled "Addendum Report", dated April 1994 and prepared by Golder Associates Limited and McNeely Engineering Consultants Limited as an addendum to March 1994 Addendum Report on Waste Management and Hydrogeological Issues.

9. Application for a Certificate of Approval for a Waste Disposal Site, signed by Jean-Denis Hurtubise, Township of Clarence, and dated June 1, 1995, to establish a Household Hazardous Waste Transfer Depot to service the Township of Clarence.

10. Letter to Kim Lendvay, MOEE Eastern Region, from Gerry Lalonde, McNeely Engineering Consultants Ltd., dated July 7, 1995 re: Response to MOEE letter dated June 26, 1995.

11. Letter to Michel Dostaler, Township of Clarence from Kim Lendvay, MOEE Eastern Region, dated June 26, 1995 re: Request for additional information.

12. A report entitled "Township of Clarence Household Hazardous Waste Transfer Station Engineering Report, Building Plan and operation and Management Plan"; prepared by McNeely Engineering consultants Ltd, and dated October 1995.

13. A three page document entitled "*Supporting Information to Application for Amendment to Certificate of Approval No. A 471203, Owner of Clarence-Rockland, February 16, 1998"* signed by Gerry Lalonde, P.Eng of Stanley Consulting Group Ltd.

14. A three page document entitled, Supporting Information to Application for Amendment to Certificate of Approval No. A 471203, City of Clarence Rockland, February 16, 1998 signed by Gerry Lalonde, P.Eng. of Stanley Consulting Group Ltd.

15. Application for Approval of a Waste Disposal Site dated February 17, 1998, and signed by R. Sarazin of the Corporation of the City of Clarence Rockland.

16. Letter dated March 12, 1998, from R. Sarazin of the Corporation of the City of Clarence Rockland to Director Approvals, Ministry of the Environment.

17. Application for Approval of a Waste Disposal Site, dated April 30, 1999 and the attached supporting documents.

18. Application for a Certificate of Approval of a Waste Disposal Site dated September 11, 2000 and signed by R. Sarazin, The Corporation of the City of Clarence Rockland, for expansion to the existing landfill site, with the following supporting documentation:

    (a) Volume I - Report entitled "City of Clarence Rockland, EPA Landfill Expansion, Design, Operation and Maintenance Report", dated August 2000, prepared by Stantec Consulting Ltd.

    (b) Volume II - Report entitled "Hydrogeological and Geotechnical Design Considerations, The City of Clarence Rockland, Landfill Expansion, Application under the Environmental Protection Act, The City of Clarence Rockland, Ontario", dated September 2000, prepared by Golder Associates Ltd.

    (c) Volume III - Report entitled "Design and Operation , Geotechnical Memorandums, The City of Clarence Rockland, Landfill Expansion, Application under the Environmental Protection Act, The City of Clarence Rockland, Ontario", dated September 2000, prepared by Golder Associates Ltd.

(d) Volume IV - Report entitled "The City of Clarence Rockland, EPA Landfill Expansion - Year 2000, Appendix IV", dated August 2000, prepared by Stantec Consulting Ltd.

19. Facsimile transmission from Gerry Lalonde, Stantec Consulting Ltd. to Roman Krawczyniuk, Ontario Ministry of the Environment, dated November 20, 2000, containing additional information related to review of the potential noise impacts.

20. Report entitled "2001 Annual Report on Groundwater and Surface Water Monitoring Program, Clarence-Rockland Landfill Site, City of Clarence-Rockland, Ontario", dated March 2002 and prepared by Golder Associates Ltd.

21. Application for a waste disposal site amendment dated August 26, 2003, signed by Richard Sarazin, Director of Physical Services, from the City of Clarence Rockland. re: using biosolids as alternative daily cover.

22. Letter dated February 11, 2004, signed by Gerry Lalonde, Stantec Consulting Ltd. to A. Mobberley, MOE. re: additional biosolids handling procedures and mixing locations.

23. Report entitled "City of Clarence-Rockland 2008 Annual Operations Monitoring Report", dated March 2009 and prepared by Stantec Consulting Ltd.

24. Report entitled "2008 Annual Report on Groundwater and Surface Water Monitoring Program, Clarence-Rockland Landfill Site, City of Clarence-Rockland, Ontario", dated March 2009 and prepared by Golder Associates Ltd.

The reasons for the imposition of these terms and conditions are as follows:

GENERAL

1. The reason for Conditions 1(1), (2), (4), (5), (6), (7), (8), (9), (10), (17), (18) and (19) is to clarify the legal rights and responsibilities of the *Owner* and *Operator* under this Certificate of Approval.

2. The reasons for Condition 1(3) is to ensure that the *Site* is designed, operated, monitored and maintained in accordance with the application and supporting documentation submitted by the *Owner,* and not in a manner which the *Director* has not been asked to consider.

3. The reasons for Condition 1(11) are to ensure that the *Site* is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the *Director* is informed of any changes.

4. The reasons for Condition 1(12) are to restrict potential transfer or encumbrance of the *Site* without the approval of the *Director* and to ensure that any transfer of encumbrance can be made

only on the basis that it will not endanger compliance with this Certificate of Approval.

5. The reason for Condition 1(13) is to ensure that the successor is aware of its legal responsibilities.

6. Conditions 1 (14) and (15) are included, pursuant to subsection 197(1) of the *EPA* , to provide that any persons having an interest in the *Site* are aware that the land has been approved and used for the purposes of waste disposal.

7. The reason for Condition 1(16) is to ensure that appropriate Ministry staff has ready access to the Site for inspection of facilities, equipment, practices and operations required by the conditions in this Certificate of Approval. This Condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the *Act* , the *OWRA* , the *PA* , the *NMA* and the *SDWA* .

SITE OPERATION

8. The reasons for Conditions 2(1), 2(5) and 6(3) are to ensure that the *Site* is operated, inspected and maintained in an environmentally acceptable manner and does not result in a hazard or nuisance to the natural environment or any person.

9. The reason for Conditions 2 (2), 2(3) and 2(4) is to ensure that users of the *Site* are fully aware of important information and restrictions related to *Site* operations and access under this *Certificate.*

10. The reason for Condition 2(6) is that open burning of municipal waste is unacceptable because of concerns with air emissions, smoke and other nuisance affects, and the potential fire hazard.

11. Condition No. 2 (7) is included to ensure protection of public health and safety, and minimization of potential damage to environmental controls, monitoring and other works at the Site due to uncontrolled removal of materials from waste at the Site.

12. The reasons for Condition 2(8), 2(9) and 2(10) are to specify the hours of operation for the landfill site and a mechanism for amendment of the hours of operation, as required.

13. The reasons for Condition 2(11) and 2(12) are to ensure that the *Site* is supervised by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person and to ensure the controlled access and integrity of the *Site* by preventing unauthorized access when the Site is closed and no site attendant is on duty.

14. Conditions Nos. 2 (13), 2(14) and 2(15) are included to ensure that the Site is designed and operated in a way that does not result in a hazard or nuisance to the natural environment or any persons.

EMPLOYEE TRAINING

15. The reason for Conditions 3(1) and 3(2) is to ensure that the *Site* is supervised and operated by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person.

COMPLAINTS RESPONSE PROCEDURE

16. The reason for Condition 4(1) is to ensure that any complaints regarding landfill operations at this *Site* are responded to in a timely and efficient manner.

EMERGENCY RESPONSE

17. Conditions 5(1) and 5(2) are included to ensure that emergency situations are reported to the Ministry to ensure public health and safety and environmental protection.

18. Conditions 5(3), 5(4) and 5(5) are included to ensure that emergency situations are handled in a manner to minimize the likelihood of an adverse effect and to ensure public health and safety and environmental protection.

RECORD KEEPING AND REPORTING

19. The reason for Conditions 6(1) and 6(2) is to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Certificate of Approval (such as fill rate, site capacity, record keeping, annual reporting, and financial assurance requirements), the *EPA* and its regulations.

20. The reason for Conditions 6(4) and 6(5) is to ensure that detailed records of *Site* inspections are recorded and maintained for inspection and information purposes.

21. The reasons for Conditions 6(6) and 6(7) are to ensure that regular review of site development, operations and monitoring data is documented and any possible improvements to site design, operations or monitoring programs are identified. An annual report is an important tool used in reviewing site activities and for determining the effectiveness of site design.

LANDFILL DESIGN AND DEVELOPMENT

22. The reason for Conditions 7(1) to 7(6) inclusive and 7(10) is to specify the approved areas from which waste may be accepted at the *Site* and the types and amounts of waste that may be accepted for disposal at the *Site,* based on the *Owner* 's application and supporting documentation.

23. Conditions Nos. 7(7), 7(8) and 7(9) are included to specify restrictions on the extent of landfilling at this *Site* based on the Owner's application and supporting documentation.

24. The reasons for Condition 7(11) are to ensure that daily/weekly and intermediate cover are used to control potential nuisance effects, to facilitate vehicle access on the *Site,* and to ensure an acceptable site appearance is maintained. The proper closure of a landfill site requires the application of a final cover which is aesthetically pleasing, controls infiltration, and is suitable for the end use planned for the *Site.*

25. The reasons for Condition 7 (12) and 7(13) is to specify the approved alternative cover material and to specify requirements for use of alternative cover material at the *Site* .

LANDFILL MONITORING

26. Reasons for Condition 8(1), 8(2) and 8(3) are to ensure that off site migration of landfill gas is monitored and all buildings at the *Site* are free of any landfill gas accumulation, which due to a methane gas component may be explosive and thus create a danger to any persons at the *Site.*

27. Condition 8(4) is included to provide the groundwater and surface water limits to prevent water pollution at the *Site.*

28. Conditions 8(5) to 8(9) inclusive are included to require the Owner to demonstrate that the *Site* is performing as designed and the impacts on the natural environment are acceptable. Regular monitoring allows for the analysis of trends over time and ensures that there is an early warning of potential problems so that any necessary remedial/contingency action can be taken.

29. Conditions 8(10), 8(11) and 8(12) are included to ensure the integrity of the groundwater monitoring network so that accurate monitoring results are achieved and the natural environment is protected.

30. Conditions 8(13) to 8(17) inclusive are added to ensure the *Owner* has a plan with an organized set of procedures for identifying and responding to potential issues relating to groundwater and surface water contamination at the *Site's* compliance point.

31. Reason for conditions 8(18), 8(19) and 8(20) is to streamline the approval of the changes to the monitoring plan.

CLOSURE PLAN

32. The reasons for Condition 9 are to ensure that final closure of the *Site* is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure the long-term protection of the health and safety of the public and the environment.

WASTE DIVERSION

33. Condition 10 is included because they were proposed by the Environmental Assessment Board's report entitled "*Township of Clarence - Clarence Landfill Site, Reasons for Decisions and*

Decisions ", dated May 18, 1994, prepared for the hearing that was required for the Provisional Certificate of Approval for a Waste Disposal Site No. A471203 dated June 20, 1994.

HOUSEHOLD HAZARDOUS WASTE DEPOT

34. Conditions Nos. 11(1) and 11(2) are included to ensure that the HHW depot is operated in accordance with the application and supporting documentation and not in a manner which the Director has not been asked to consider.

35. Conditions Nos. 11(3), 11(4) and 11(5) are included to ensure that the HHW depot is used only to collect and handle approved wastes from approved HHW depot users and that the waste is stored in a secure and safe manner.

36. Condition No. 11(6) is included to insure that all waste is transported and disposed of in an environmentally acceptable manner in accordance with legislation governing the handling of the waste material.

COMPOSTING

37. Condition No. 12 is included to ensure that the Owner undertakes the composting activities in accordance with Ministry's requirements and in a manner that would not result in a hazard or nuisance to the natural environment or any persons.

LIAISON COMMITTEE

38. Condition No. 13 is included to ensure that the Owner takes all reasonable steps to establish a forum for the exchange of information and public dialogue on activities carried out at the Site, so that this open communication with the public and local authorities helps in maintaining high standards for Site operations and provides environmental protection.

This Provisional Certificate of Approval revokes and replaces Certificate(s) of Approval No. A471203 issued on December 13, 1991 and June 20, 1994 and associated notices.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to eachportion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;

8. The municipality within which the waste disposal site is located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Director
Section 39, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted waste disposal site is approved under Section 39 of the Environmental Protection Act.

DATED AT TORONTO this 21st day of October, 2009

Tesfaye Gebrezghi, P.Eng.
Director
Section 39, *Environmental Protection Act*

RM/

c: District Manager, MOE Cornwall
Gerry Lalonde, Stantec Consulting Ltd.

63400143-

Ministry of the Environment | Ministère de l'Environnement

Ontario

AMENDMENT TO PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE
NUMBER A471203
Notice No. 4

RECEIVED
APR 02 2004
TIME: _____
STANTEC

The Corporation of the City of Clarence-Rockland
1560 rue Laurier
Rockland, Ontario
K4K 1P7

Site Location: City of Clarence-Rockland Municipal Waste Disposal Site
Lot 15, Concession 4
Clarence-Rockland City, United Counties of Prescott and Russell

You are hereby notified that I have amended Provisional Certificate of Approval No. A471203 issued on December 13, 1991 for a 12 hectare landfilling area within a total site area of 50 hectares, as follows:

Condition 20 is hereby amended to read as follows:

20. a) Contaminated soil that is not a hazardous waste as defined by O.Reg. 347 and O. Reg. 558, either mixed with clean soil or own its own, and biosolids from the City of Clarence-Rockland's Water Pollution Control Plant mixed with soil, compost and/or wood chips , may be used as daily cover provided that its use does not cause any adverse effects;

b) Subject to Condition 20 (a), if the application of the contaminated soil as a daily cover causes operational problems, odours or other environmental adverse effects as verified by a Provincial Officer, the use of the contaminated soil shall be immediately discontinued and only clean soil or biosolids mixed with soil, compost and/or wood chips shall be used as daily cover;

c) Subject to Condition 20 (a), if the application of the biosolids as a daily cover causes operational problems, odours or other environmental adverse effects as verified by a Provincial Officer, the use of the biosolids shall be immediately discontinued and only clean soil contaminated shall be used as daily cover; and

d) Compost mixed with clean soil, and wood chips mixed with clean soil may also be used as alternative material for daily cover.

The following items are hereby added to schedule "A".

16. Application for a waste disposal site amendment dated August 26, 2003, signed by Richard Sarazin, Director of Physical Services, from the City of Clarence Rockland. re: using biosolids as alternative

daily cover.

17. Letter dated February 11, 2004, signed by Gerry Lalonde, Stantec Consulting Ltd. to A. Mobberley, MOE. re: additional biosolids handling procedures and mixing locations.

The reason for this amendment to the Certificate of Approval is as follows:

37. The reason for this amendment is to allow the use of biosolids from the City's Water Pollution Control Plant to be used as alternative daily cover at the City of Clarence-Rockland Municipal Waste Disposal Site, Certificate of Approval No. A471203.

This Notice shall constitute part of the approval issued under Provisional Certificate of Approval No. A471203 dated December 13, 1991

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the waste disposal site is located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 39, *Environmental Protection Act*
Ministry of Environment and Energy
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

* **Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted waste disposal site is approved under Section 39 of the Environmental Protection Act.

DATED AT TORONTO this 23rd day of March, 2004

THIS NOTICE WAS MAILED
ON March 30, 2004
JC
(Signed)

Ian Parrott, P.Eng.
Director
Section 39, *Environmental Protection Act*

AM/

c: District Manager, MOE Cornwall
Gerry Lalonde, Stantec Consulting Ltd. ✓

APPENDIX C

MECP Correspondence

Ministry of the Environment and Climate Change

P.O. Box 22032
Kingston, Ontario
K7M 8S5
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement et de l'Action en matière de changement climatique

C.P. 22032
Kingston (Ontario)
K7M 8S5
613/549-4000 ou 1-800/267-0974
Fax: 613/548-6908

Ontario

M E M O R A N D U M

26 August 2016

TO: Marc Robert
Senior Environmental Officer
Cornwall Area Office
Eastern Region

FROM: Lauren Forrester
Surface Water Specialist
Technical Support Section
Eastern Region

RE: Clarence-Rockland WDS 2012-2015 Annual Operations Monitoring Reports and Annual Reports on Groundwater and Surface Water Monitoring Program
Lot 15, Concession IV, Clarence Township
City of Clarence Rockland
ECA No. A471203 and ECA No. 3362-6D7PL4

As requested, I have reviewed the City of Clarence-Rockland 2012, 2013, 2014 and 2015 Annual Operations Monitoring Reports, prepared by Stantec Consulting Ltd.. Interpretation of ground and surface water monitoring results is included as Part B to these reports and is prepared by Golder Associates Ltd. (GAL).

I have also consulted the most recent groundwater and surface water comments provided by this office, as well as the latest compliance inspection report (July 16, 2014). Surface water comments were last provided from this office in a memorandum prepared by Gillian Dagg-Foster, dated November 4, 2010 in review of the 2008 and 2009 reports. Groundwater matters were reviewed in a memorandum prepared by Thomas Guo and Robert Holland dated July 29, 2013. The following comments are provided with respect to surface water concerns.

Background

The Clarence-Rockland Waste Disposal Site (WDS) operates under provisional Environmental Compliance Approval (ECA) No. A471203, last amended August 19, 2016. An on-site pond / wetland for collection of leachate impacted water and stormwater is operated under ECA 3362-6D7PL4, issued June 24, 2005. Notice 2 to that Approval, dated August 19, 2016, requires that an application to amend be submitted by December 30, 2016 to amend the ECA to include the stormwater management works on the site.

Cover material is applied on the fill area on a daily basis. Daily cover is described as a mixture of wood chips, dewatered sludge from the Rockland sewage treatment plant, and sand. Stantec estimates the landfill to have 33 years of remaining service life as of 2015.

Snow disposal was formerly undertaken on the west portion of the site (e.g. in 2005, 2006, 2008, 2009). Establishment of a long-term snow disposal facility at the southwest corner of the property was proposed in 2011, but was not supported by the surface water reviewer (Dagg-Foster, 2012). It appears that the City currently stockpiles snow on the eastern corner of the property, north of the former Brazeau property and that this location has been in use since 2002. The snow pile is located hydraulically downgradient of the landfill area, based on the inferred groundwater flow direction, and surface flow from the snow pile is captured by the realigned ditch, described below.

Based on groundwater elevation data, there appears to be a groundwater divide which traverses the central portion of the site. To the west, leachate impacted groundwater migrates westward towards the stream, which has the potential to be impacted by leachate. The primary path for leachate migration is eastward in overburden, with potentially leachate-impacted groundwater migrating eastward from the fill area and on-site pond towards the snow stockpile area and southeast ditch along Labelle Road. A vertical cut-off wall along the southern boundary is intended to prevent groundwater impacts at that boundary; however, the actual effectiveness is unclear based on the most recent groundwater review (Guo and Holland, 2013).

Local surface water drainage is to the north by way of a stream on the west side of the site and a ditch on the southeast side of the site. The ditch was realigned in 2009 to flow on the south and east (as opposed to west and north) sides of the snow storage area, within the property boundaries. The ditch and stream converge north of the site and flow eastward into Cobbs Lake Creek approximately 1.7 km downstream. Cobbs Lake Creek flows south/southeast to the South Nation River, approximately 10.3 km downstream.

Visual signs of leachate impact to the ditch on the west side of the property were documented in the 2014 compliance inspection. City staff attributed this observation to a lack of interim capping on Cell 2 following the removal of cover from Cell 1 to allow placement of waste in Cell 2. The inspection report also states that leachate was observed in the east drainage ditch, but no further mention is made of the eastern watercourse and I suspect this may have been in reference to the on-site pond or its inflow and not the ditch at the east property boundary.

Leachate has been characterized based on water quality in monitoring well P5B-01. Leachate indicator parameters relevant to surface water receptors have been identified as alkalinity, DOC, TDS, unionized ammonia, hardness, total phosphorus, chloride, sodium, sulphate, boron, conductivity, iron, lead, manganese and sodium. The groundwater reviewer recommended that COD also be included as a leachate indicator for this site.

The site is subject to both groundwater and surface water trigger mechanisms.

Results and Discussion

For 2015, samples were collected from S1 and S2 (west stream), GS6 and GS17 (background, west), and GS11, GS12 and GS15 (on-site pond). No changes have been made to the monitoring program over the past four years (2012-2015). Three monitoring locations in the ditch on the southeast portion of the property were eliminated from the monitoring program following realignment of the ditch.

Background for the west stream (GS6) and background for the ditch (GS17) have both been characterized as having concentrations of total phosphorus, iron and aluminum exceeding the Provincial Water Quality Objectives (PWQO) in the majority of samples. This is not unusual for a surface watercourse, especially in agricultural areas, but the observed concentrations are beyond what would be considered typical. Although the PWQO were occasionally exceeded, the background concentrations for metals (75th percentiles) were below the respective PWQO.

West Stream and Ditch

GAL report that S1 and S2 exhibit seasonal variations, with highest concentrations during the summer when water levels are lowest. This is reasonable. Concentrations of key indicator parameters were reported to be similar at S1, S2, GS6 and GS17, indicating that the western stream is not measurably impacted by leachate. Based on an independent review of the submitted data, I agree.

Concentrations of most key indicator parameters at SW2 are similar to GS6 and GS17. Only iron, total phosphorus and dissolved aluminum consistently exceed the PWQO at SW2, with concentrations similar to upstream. Some key indicator parameters were high in November 2014 at both at S2 and to a lesser extent GS17 compared to historical data, but have returned to normal range in 2015 (e.g. many metals, total phosphorus, nitrogen compounds). This should be monitored carefully moving forward.

On-site Pond

GAL report that the on-site pond's outflow was blocked as part of construction activities in 2005 to prevent surface water flow off-site. The pond is intended to dilute leachate-impacted groundwater prior to discharge via groundwater flow east of the pond. Stantec report that an inspection of the wetland in the summer of 2015 revealed abundant emergent vegetation in each of the five rows of the wetland.

GS11, GS12, GS15 in the on-site pond are interpreted to be leachate impacted. At GS11 and GS12, GAL report elevated concentrations of almost all leachate indicator parameters and a long-term increasing trend up to 2011, followed by stable concentrations of many parameters up to 2014, and a possible decrease reported in 2015. I concur.

Based on independent review of sampling data from GS11 since 2012, the Canadian Water Quality Guideline (CWQG) for chloride was exceeded in 80% of samples (n=10, 97-320 mg/L, average 222 mg/L) and the CWQG for boron was exceeded in 82% of samples (n=11, 0.7-2.6 mg/L, average 2.1 mg/L). Unionized ammonia exceeded the PWQO in 64% of samples (n=11, 0.6-176 µg/L, average 74 µg/L). Copper, cobalt, iron, vanadium, phenolics, total phosphorus and iron are also elevated compared to the PWQO. Leachate parameters were elevated, but to a lesser extent, at GS12 and GS15. Based on the reported water quality, it remains important that there be no surface water outflow from the pond.

GAL report that the anticipated dilution of leachate impacted groundwater is not occurring and that some surface water flowing to the pond is more impacted than groundwater. GAL further recommends that (groundwater monitoring) results at the eastern boundary will have to be monitored closely to observe if there is potential for exceedances not predicted by the model. I defer to the groundwater reviewer on matters related to groundwater flow from the on-site pond.

Southeast Watercourse

No surface water quality monitoring is undertaken at the southeastern/eastern property boundary; however, groundwater monitoring has revealed possible non-compliance with Ministry of the Environment and Climate Change (MOECC) guideline B-7. Golder reports that the source of the leachate indicator parameters at that boundary may be associated with geological conditions and/or salt-impacted melt-water from the snow stockpile area in the southeastern portion of the property.

The location of the snow stockpile in the southeast corner of the site, immediately adjacent to the realigned ditch, is a concern with respect to surface water. Given that the location of the snow disposal area is down-gradient of the waste mound (according to the interpreted groundwater flow direction), the main concern with respect to leachate impacts is the potential for the acceleration of movement of leachate-impacted groundwater east of the on-site pond and potential to mask leachate-related effects along the southeastern boundary. Contaminants known to be associated with snow removed from roadways include dissolved salts, oil, heavy metals, oxygen demanding organics and particulates. With consideration for the reported failure to achieve the anticipated dilution in the on-site pond (described above) and potential for previously unanticipated leachate impacts at the southeast property boundary, it is my opinion that monitoring of surface water in the southeast ditch / watercourse is again justified.

I recommend that surface water monitoring be reinstated at the former GS21 (or preferably on the upstream side of Lalonde Road in the Lepage Municipal Drain which flows onto the site) and GS20 (at the property boundary, downstream of the snow storage area and prior to the confluence with the west branch of the Rozon-Seguin Municipal Drain). These sampling locations should be sampled consistent with the current program for surveillance stations (e.g. sampled three times per year for the comprehensive list of leachate indicator parameters and field measurement of temperature, pH, conductivity, DO and flow rate at the time of sampling).

If impacts are identified at GS20, it may be necessary to establish additional sampling locations to better understand the significance of those impacts to the drain (e.g. upstream of Lalonde Road in the West Branch of the Rozon Seguin Municipal Drain and downstream of the confluence of the on-site ditch with the drain / upstream of agricultural areas (120-150 metres downstream from GS20)).

Trigger Assessment

With respect to the on-site pond, the requirement to compare surface water results to trigger concentrations given within ECA 3362-6D7PL4 was removed as per correspondence with the MOECC on September 2, 2008 based on the absence of discharge from the pond. The surface water trigger mechanism has been replaced by a groundwater trigger mechanism for monitors east of the pond.

The amended provisional ECA A471203 refers to the surface water trigger mechanism described in Appendix A of the 2001 Annual Report prepared by Golder Associates (2002). Following an exhaustive search of the files in this office, a copy of that report could not be located. It would be helpful if future annual reports included a fulsome description of the current trigger mechanism / contingency plan for the Clarence-Rockland WDS.

To the best of my understanding and based on available information, the trigger mechanism for the Clarence-Rockland WDS consists of an exceedance of the 75th percentile concentration for existing background or PWQO, whichever is greater, at sampling stations SW2 (west boundary) or GS20 (east boundary) for identified site-specific leachate indicator parameters with established PWQO. If resampling confirms that the trigger concentration was exceeded, contingency measures would be triggered. Sampling station GS20 was eliminated following realignment of the ditch on the southeast boundary.

Revised trigger concentrations for boron, iron, total phosphorus and unionized ammonia were calculated by GAL based on data from GS6. These were confirmed through independent review of the submitted data. For 2015, trigger values were identified as 0.2 mg/L for boron (PWQO), 1.50 mg/L for iron (75th percentile), 0.08 mg/L for TP (75th percentile) and 0.02 mg/L for unionized ammonia (PWQO). I recommend that chloride and sulphate also be considered as potential trigger parameters, based on their respective guidelines (CWQG of 120 mg/L for chloride and the hardness-specific BC Ministry of the Environment guideline for sulphate, which have been adopted by the MOECC for the purpose of surface water impact assessment).

Trigger concentrations calculated by GAL were based on data from GS6 only (as opposed to both GS6 and GS17). This represents a conservative approach, as GS17 has been characterized as having higher total dissolved solids, chloride, sodium, phosphorus and zinc. This may result in more frequent and possibly unnecessary triggering of re-sampling and/or contingency measures. Conditions at both background monitoring stations should be carefully considered in evaluating the presence or absence of leachate impacts at S1 and S2.

GAL report that the stream to the west of the fill area is not impacted by landfill leachate at this time. I agree. Iron and total phosphorus each exceed the trigger concentration on several occasions in recent years, but this has typically coincided with elevated concentrations upstream (GS17 and/or GS6). I note that background samples are not typically collected when a resampling is undertaken. Any resampling at S2 as a result of a trigger exceedance should be accompanied by sampling at both background stations to allow the determination of whether the trigger was the result of leachate or upstream sources.

Conclusions and Recommendations

- The watercourse on the west of the property is not measurably impacted by leachate at this time.

- The on-site pond is leachate-impacted, with elevated concentrations of almost all leachate indicator parameters, many of which exceed relevant water quality guidelines, and with increasing trends up to 2011. Concentrations of many parameters appear to have now stabilized, but should be carefully monitored moving forward.

- No surface water monitoring in the southeastern/eastern watercourse was undertaken 2012-2015.

- Stantec and GAL recommend that surface water monitoring continue, with no changes proposed to the surface water monitoring program. As described above, I recommend that GS20 and GS21 be reinstated as Surveillance Surface Water Stations. Additional sampling locations may be required in the future if impacts are identified. This is based on the observed leachate impacts in the on-site pond, reports that anticipated dilution of leachate is not occurring in the on-site pond and possible non-compliance with MOECC guideline B-7 at the eastern property boundary.

- Given the numerous PWQO exceedences in both the inflow to the on-site pond and the ponded water itself, it is important that there continue to be no outflow from the pond to the neighboring watercourse over the long term.

- Stantec recommends that the stormwater management assessment stipulated by Condition 2(17) of the ECA 3362-6D7PL4 be completed and submit application to amend ECA accordingly.

- It would be helpful if future annual reports included a fulsome description of the current trigger mechanism / contingency plan for the Clarence-Rockland WDS.

- Trigger concentrations are calculated using data from GS6 only (as opposed to both GS6 and GS17). This represents a conservative approach, as GS17 has been characterized as having higher TDS, chloride, sodium, phosphorus and zinc. This may result in more frequent and possibly unnecessary triggering of re-sampling and/or contingency measures. Conditions at both background monitoring stations should be carefully considered in evaluating the presence or absence of leachate impacts at S1 and S2.

- Any resampling at S2 as a result of a trigger exceedance should be accompanied by sampling at both background stations to allow the determination of whether the trigger was the result of leachate or upstream sources.

- Surface water results should be compared to CWQG for nitrate, nitrite and chloride. The hardness-specific BC guideline for sulphate should also be consulted.

If you have any questions about these comments, I would be happy to discuss them with you.

"Original Signed By"

Lauren Forrester, M.Sc.
LF/sh

ec: Peter Taylor, Technical Support Section Manager
Greg Faaren, Water Resources Unit Supervisor
Robert Holland, Regional Hydrogeologist

c: File SW PR CL 03 06 C4, Clarence-Rockland WDS
File SW 13 06 02 07 02, South Nation River Basin (Cobbs Lake Creek)
LF/IDS 7811-A8ZLW6; 2220-9XSRD3; 7515-9HQQ8Q; and 4460-96MQ97

Clarence-Rockland

VIA email

October 7th, 2016

Mr. Marc Robert
Senior Environmental Officer
Ministry of the Environment
113 Amelia Street
Cornwall ON K6H 3P1

RE: Clarence-Rockland WDS 2012-2015 Annual Operations Monitoring Reports and Annual Reports on Groundwater and Surface Water Monitoring Program
Clarence-Rockland Landfill Site

Sir:

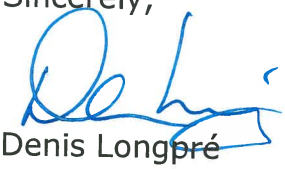
Further to your email dated October 4th, 2016 we acknowledge receipt of the Surface Water Group's review. We would like to take this opportunity to inform the Ministry that the City of Clarence-Rockland has retained the services of jp2g Consultants Inc. for the annual monitoring and reporting requirements for the landfill site, following a competitive bidding process. This agreement is for a term of three (3) years starting in 2016.

We will provide jp2g Consultants Inc. with this report and the Groundwater Group's report as soon as it is made available to us.

The 2016 sampling is almost complete and will ensure that these recommendations are all addressed in 2017 and moving forward with future reporting.

Should you have any comments or questions, please do not hesitate to contact us at any time.

Sincerely,



Denis Longpré
Environment Manager

c.c. Mr. Jean-Yves Carrier, Director Infrastructures and Planning
Mr. Andrew Buzza, jp2g Consultants Inc.

Ministry of the Environment and Climate Change

P.O. Box 22032
Kingston, Ontario
K7M 8S5
613/549-4000 or 1-800/267-0974
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Ministère de l'Environnement et de l'Action en matière de changement climatique

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Kingston (Ontario)
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613/549-4000 ou 1-800/267-0974
Fax: 613/548-6908

Ontario

M E M O R A N D U M

May 4, 2017

TO: Melissa Lee
Senior Environmental Officer
Cornwall Area Office
Eastern Region

FROM: Robert Holland
Hydrogeologist
Technical Support Section, Water Resources Unit
Eastern Region

RE: Clarence-Rockland Landfill
2016 Annual Monitoring Report
Environmental Compliance Approval (ECA) # A471203
Lot 15, Concession IV
City of Clarence-Rockland
United Counties of Prescott and Russell
Hydrogeological Review

I have reviewed the "City of Clarence –Rockland, ON 2016 Annual Monitoring Report, Final Report, march 2017" prepared by J-2g and I offer the following comments**.**

Table 11 of the report summarized the Reasonable Use (RU) Concentration compliance status of the site in 2016. Based on this information, I agree with the consultant that RU limits were exceeded for one or more trigger parameters in all directions northwest of the site in 2017. I also agree with the consultant that mitigation measures should be undertaken west and east of the site coincident with the predominant groundwater flow directions. The consultant suggests augmentation of the contaminant attenuation zone (CAZ) west of the site by land acquisition. I agree with this approach and would like further details on the acquisition of groundwater rights and/or lands to ensure long term compliance with Reasonable Use limits. A remedial work plan should be submitted by the owner to address these matters. At this time I am prepared to accept that road de-icing slat used along Lalonde Road may be contributing to groundwater impacts coincident with the area in and the southern boundary cut off wall and that no remedial measures are required at this time. De-icing agents used on roads are not deemed to be contaminants are per Ont. Reg. 339. The northern CAZ is adequate at this time.

I do not accept that only four monitoring wells, namely G37-01, G12-92, G42-10, and G43-11, are to be used for compliance triggers for contingency purposes. Wells 18-92, G26-94 and G29-97 shall be maintained as compliance wells to assess groundwater impacts around the perimeter of the site to ensure long term groundwater protection as the site is progressively developed.

Future reports should ensure that groundwater trend graphs are consistent with past graphs prepared by the previous consultant. The graphs present on only seven parameters. Hardness, alkalinity, COD, DOC, ammonia, and total phosphorous should be added to these graphs.

Thank you for providing me with an opportunity to comment on this matter. If you have any questions give me a call.

"Original Signed By"

Robert W. Holland, P.Geo.
RWH/dv

c: Bob Holland
GW PR CR C4 01 02

Ministry of the Environment and Climate Change
Eastern Region
Ottawa District Office
Cornwall Area Office
113 Amelia St
Cornwall ON K6H 3P1
Fax: (613) 933-6402
Tel: (613) 933-7404

Ministère de l'Environnement et de l'Action en matière de changement climatique
Direction régionale de l'Est
113 rue Amelia
Cornwall ON K6H 3P1
Télécopieur: (613) 933-6402
Tél:(613) 933-7404

Ontario

July 21, 2017

The Corporation of the City of Clarence-Rockland
1560 Laurier Street
P.O. Box 909
Clarence-Rockland, ON K4K 1P7

Attention: Denis Longpré, Manager of Environment and Water, Infratrusture and Engineering

Mr. Longpré,

RE: Industrial Sewage Compliance Inspection
Clarence-Rockland Landfill Site
Reference Number 6538-ALKHEB

On April 20, 2017, I completed a Industrial Sewage Compliance Inspection at the Clarence-Rockland (Bourget) Landfill Site. The findings of this inspection are detailed in the attached report.

The City is required to take action to address the compliance issues identified in the inspection. Please refer to Section 5.0 of the inspection report and address the action items within the timeframes provided.

You understanding and anticipated cooperation are appreciated. Should you have any questions or comments or wish to meet to discuss any of the issues identified, please feel free to call me at 613-933-7404 or e-mail me at melissa.lee2@ontario.ca.
Yours truly,

Melissa Lee
Senior Environmental Officer
Cornwall Area Office

File Storage Number: SI RU CR C4 410

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

Industrial Sewage Inspection Report

Client:	The Corporation of the City of Clarence-Rockland Mailing Address: 1560 Laurier St P.O. Box 909, Clarence-Rockland, Ontario, Canada, K4K 1P7 Physical Address: 1560 Laurier St, Clarence-Rockland, City, United Counties of Prescott and Russell, Ontario, Canada, K4K 1P7 Telephone: (613)446-6022, Extension: 2239, FAX: (613)446-1497, email: rcampeau@clarence-rockland.com Client #: 4328-4G5PYT, Client Type: Municipal Government, NAICS: 221310		
Inspection Site Address:	City of Clarence Rockland Waste Disposal Site Address: Lot: 15, Concession: 4, Geographic Township: CLARENCE, Clarence-Rockland, City, United Counties of Prescott and Russell District Office: Cornwall LIO GeoReference: Zone: , UTM Easting: , UTM Northing: , Latitude: 45.4652, Longitude: -75.1667 Site #: 7049-5RBRBL		
Contact Name:	Denis Longpré	**Title:**	Manager of Environment and Water, Infrastructure and Engineering
Contact Telephone:	(613)446-6022 **ext**2299	**Contact Fax:**	(613)446-1497
Last Inspection Date:			
Inspection Start Date:	2017/04/20	**Inspection Finish Date:**	2017/04/20
Region:	Eastern		

1.0 INTRODUCTION

On April 20, 2017, Ontario Ministry of Environment and Climate Change (Ministry) Senior Environmental Officer Melissa Lee, completed a Industrial Sewage Compliance Inspection of The City of Clarence-Rockland (City) Waste Disposal Site (Landfill) stormwater and leachate-impacted groundwater industrial sewage works, located on Lot 15, Concession 4, on the west corner of Lalonde and Labelle Roads in Bourget (Site).

The purpose of the Ministry's Industrial Sewage Compliance Inspection Program is to ensure that facilities that discharge contaminants into the natural environment are in compliance with Ministry legislation and control documents and in conformance with guidelines and standards related to wastewater. Specifically, this includes compliance\conformance with the following documents:

- Environmental Protection Act (EPA);
- Ontario Water Resources Act (OWRA);
- Environmental Compliance Approvals (ECAs);
- Provincial Officer's Orders (POOs) and;
- Procedure B-1-1: Water Management - Guidelines and Procedures of the Ministry of Environment and Energy (The 'Blue Book') and;
- Procedure B-1-5: Deriving Receiving Water Based, Point Source Effluent Requirements for Ontario Waters (The 'Green Book').

The wastewater pond is approved under ECA No. 3362-6D7PL4 (ECA), issued June 24, 2005, to receive surface water and leachate-impacted groundwater. Prior to approval in 2005, the pond discharged at its northeast extent to

Cobb's Lake Creek. Following approval, the outlet was blocked and the contents primarily infiltrate into groundwater. The pond upgrades required for approval also included increasing bank and outlet height to ensure the pond only overflowed when levels reached 50.5 masl.

The pond is located on the landfill site that is approved under ECA No. A471203 (ECA) to accept domestic and commercial solid non-hazardous wastes from within the boundaries of the City of Clarence-Rockland.

This is the first inspection of the sewage works for this site. Denis Longpré, Manager of Environment and Water, Infrastructure and Engineering and Jocelyn Chabot, Environmental Technician, both of the City of Clarence-Rockland, were available during the inspection to provide a Site tour and answer questions. A solid-non hazardous waste disposal site compliance inspection was also completed at the time of the inspection; the results of this inspection are included under separate cover, dated June 30, 2017.

The inspection findings are detailed in Section 4.0 of this report and any actions required are detailed in Section 5.0. The level readings and whether the pond is discharging must be determined by the City of Clarence-Rockland; there is conflicting information contained in recent reports about water levels in the pond that suggest the pond should be discharging, but staff indicate it has not. This must be confirmed by the City as the water quality in the pond exceeds PWQO for many leachate indicator parameters and could be having an impact on surface water in the area if it is discharging; if this is the case, contingency measures may be required to be implemented.

Appendix A: Amended ECA No. 3362-6D7PL4

2.0 INSPECTION OBSERVATION

Facility MEWS (Works) Number:
N/A

Sector Type:
Waste Disposal

Effluent Type:
Landfill Leachate, Storm Water

Receiver Type:
Ground Water

The wastewater treatment pond was designed to promote infiltration of surface water into groundwater, but does have an overflow capability once the pond reaches a critical level (50.5 masl). According to staff, the pond has not overflowed.

Certificate of Approval Number(s):
Yes
C of A Number(s): 3362-6D7PL4

ECA No. 3362-6D7PL4 was issued on June 24, 2005 for an existing on-site pond receiving stormwater and leachate impacted groundwater as well as upgrades to the pond to promote retention and infiltration.

2.1 WASTEWATER TREATMENT PROCESS DESCRIPTION

Surface water reaches the pond by way of on-site ditching and leachate-impacted groundwater enters the pond through groundwater interactions near the pond.

Treatment is provided through retention and natural attenuation; no other mechanical or chemical treatment processes are employed. The pond is very naturalized with well established vegetation on its banks.

The pond approved to discharge to surface water only when water levels exceed 50.5 masl. The receiver is the Cobb's Lake Creek (Ottawa River system). The primary method of effluent disposal is through infiltration into groundwater.

Prior to approval of the pond in 2005, it discharged regularly to Cobb's Lake Creek. Improvements made following the issuance of the ECA included: increasing bank height, narrowing and increasing the height of the outlet drain, plugging other outlets and infilling the receiving ditch for a 80 m stretch, all to promote infiltration over surface water discharge.

2.2 EFFLUENT SUMMARY REPORT

What are the facility's effluent limits based on?
Certificate of Approval/Permit

Does the facility comply with its limits?
No

The ECA sets out surface water monitoring requirements for three sample locations within the pond GS11, GS12 and GS14. As described in the introduction, the Site is also governed by waste disposal site ECA No. A471203; this approval also sets out surface water sampling of the waste water pond as a requirement. Surface water is analysed for a suite of parameters described in the waste ECAs sampling program and in Table 1 of the sewage works ECA. Sample results are compared to Provincial Water Quality Objectives and the established trigger mechanisms. Table 2 of the sewage works ECA establishes trigger concentration for unionized ammonia, boron, iron and total phosphorus for sampling point GS12.

Surface water trigger concentrations are being exceeded in the stations located in the pond. Therefore it is important to determine whether the pond is discharging its contents to surface water to know whether the contingency plan should be implemented. According to the City and as described in the 2016 annual report, there are no discharges from the pond.

City staff indicate that the pond is inspected once annually and again during monitoring completed by their consultants. The 2016 annual report indicates the pond is not discharging.

The pond is approved (and therefore should be designed) to discharge when the water level reaches a height of 50.5 masl and the banks are supposed to be graded to 51 masl. The last staff gauge reading measured the pond level at 51.02 masl in 2015 and then could not be located in 2016. The pond was viewed during the inspection, but did not appear to be overflowing at its banks. The outlet was not viewed at the time of the inspection, as the pond appeared well below the grade of the banks and the City representatives indicated the pond does not discharge.

Based on the above, there appears to be some question regarding the quality of the water level readings or the actual bank and outlet heights. A staff gauge is also missing. Certainty regarding the discharge of the pond is lacking. As such, the City must provide a topographical survey of the pond's bank and outlet heights, install a new or recover an existing staff gauge and implement an inspection program to ensure the City is aware when the pond is discharging. At a minimum, the pond outlet should be inspected when the water levels in the pond reach a critical height, as determined by the plan.

Please refer to Section 5.0 'Actions Required' for more details.

2.3 SEWAGE TREATMENT WORKS CAPACITY ASSESSMENT

Flow (m^3/day)	Year 1 2016	Year 2	Year 3
Average daily flow	0.00	0.00	0.00
Maximum daily flow	0.00	0.00	0.00
Capacity Design	0.00	0.00	0.00
% of capacity (based on average daily flow)	0.00	0.00	0.00

Table 1 of the ECA requires that water levels in the pond be assessed (using staff gauges).

The 2016 annual monitoring report indicates that three staff gauges have been installed in the wastewater pond since 2005 to measure water levels. In 2015, the only remaining staff gauge was surveyed and the water level was determined to be 51.02 masl. In 2016, none of the staff gauges could be located.

As described in the previous section, a more reliable means of assessing works capacity is required.

2.4 SAMPLING REQUIREMENTS

What are the facility's sampling requirements based on?
Certificate of Approval/Permit

Does the facility meet sampling requirements?
Yes

Sampling requirements are detailed under Condition 4 of the ECA. The results are described in the annual monitoring report, which also details the results of other monitoring required by the waste disposal site ECA No. A471203.

Based on a review of the monitoring data collected in 2016, the City meets all of its surface water sampling requirements. The trigger concentrations described in Table 2 of the ECA are being exceeded, however, since the pond has not been reported to be discharging, the contingency plan has not been implemented as of yet. As described in Section 2.2 of this report, there is a lack of certainty regarding whether the pond discharges as the level readings suggest otherwise. If it is determined that the pond is discharging, implementation of the contingency plan may be required.

A detailed review of the surface and groundwater monitoring program as it relates to the waste disposal site are described in the Solid Non-Hazardous Waste Disposal Site Inspection dated June 30, 2017. Please refer to this report for more details.

2.5 REPORTING REQUIREMENTS

What are the facility's reporting requirements based on?
Certificate of Approval/Permit

Does the facility meet reporting requirements?
Yes

Condition 7 of the ECA outlines the annual reporting requirements, which are consistent with those prescribed in waste disposal site ECA No 471203. The 2016 annual report was reviewed as part of this inspection and included all of the information required by this condition.

2.6 FLOW MEASUREMENT

Flow measurement is not required by the ECA.

2.7 MINISTRY SAMPLE RESULTS

Were Ministry samples collected during the inspection?
No

Reason:
The pond was not believed to be discharging to surface water at the time of the inspection.

2.8 FINANCIAL ASSURANCE

Financial assurance is not required for municipally owned sites.

2.9 SPILL PREVENTION AND CONTINGENCY PLANS

Is the facility required to have a Spill Prevention and Contingency Plan (SPCP) as required by Ontario Regulation 224/07?
No

Has the facility had any spills since the last inspection?
No

Were all the spills reported to the ministry?
N/A

Does the facility's operations or spill history suggest that a SPCP be developed?
No

Comments:

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

There are no previous non-compliance issues related to the sewage works.

4.0 SUMMARY OF INSPECTION FINDINGS

Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate?
No

Specifics:

Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material?
No

Specifics:

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment?
Yes

Specifics:
Based on the water level readings reported, the lack of staff gauge readings for 2016 and infrequent observation of the outlet, it could not be confirmed that the pond is not discharging or has not discharged in the recent past, to surface water.

This suggests that either the pond upgrades required in 2005 were not completed to satisfy the ECA, or that level readings are incorrect or that the pond discharges more frequently than has been reported.

Aside from ensuring the pond is constructed in accordance with the ECA (Cond 1(2)), resolution of this matter is important to determine whether it is appropriate to implement the contingency measures as the trigger mechanism concentrations are being exceeded in the pond surface water stations.

The City must submit the documentation described in Section 5.0 'Actions Required' below to confirm the compliance of the construction of the pond with the ECA as well as its status as it relates to the method of wastewater disposal.

Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material?
No

Specifics:

Was there any indication of minor administrative non-compliance?
No

Specifics:

5.0 ACTION(S) REQUIRED

1. By no later than September 1, 2017, please provide the undersigned officer with the following:

   - A copy of a topographical survey of the pond showing the bank elevations and the outlet elevation.
   - Confirmation that a staff gauge has been installed and properly surveyed to ensure water levels can be accurately measured in the pond.
   - A description of an inspection program that will be implemented to ensure the City is aware of when the pond is discharging. At a minimum, the pond outlet should be inspected when the water levels in the pond reach a critical height, as determined by the plan.

- A description of any additional measures that are required to be taken to either comply with or amend the ECA (construction of upgrades, correction to ECA of actual bank heights).

6.0 OTHER INSPECTION FINDINGS

7.0 INCIDENT REPORT

Applicable
1406-APEH9A

8.0 ATTACHMENTS

PREPARED BY:
Environmental Officer:
Name: **Melissa Lee**
District Office: **Cornwall Area Office**
Date: **2017/07/19**
Signature

REVIEWED BY:
District Supervisor:
Name: **Michael Seguin**
District Office: **Cornwall Area Office**
Date: **2017/07/21**

Signature:

File Storage Number: SI RU CR C4 410

Note:
"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"

Appendix A: ECA No. 3362-6D7PL4

The Corporation of the City of Clarence-Rockland
1560 rue Laurier
Rockland, Ontario
K4K 1P7

Site Location: City of Clarence Rockland Waste Disposal Site
Lot 15, Concession 4
City of Clarence-Rockland, United Counties of Prescott and Russell

You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:

a stormwater and leachate impacted groundwater management facility servicing the Clarence-Rockland Waste Disposal Site, located on Lot 15, Concession 4, United Counties of Prescott and Russell, consisting of:

- one (1) existing dug-out borrow pit (pond) serving as a natural attenuation facility for stormwater runoff and leachate impacted groundwater, which is approximately 450 m long and 50 m to 100 m wide with a maximum depth of 2.5 m and a total surface area of 3.3 ha, receiving stormwater runoff from a 19.3 ha drainage area, providing a total storage capacity of 40,000 m^3 at the current discharge elevation of 49.5 m, located at the northeast side of the landfill site footprint, discharging to Cobbs Lake Creek which eventually discharges to Ottawa River;

- upgrades to the east bank of the pond to raise the bank elevation to 51.0 m and the pond outlet elevation to 50.5 m increasing the maximum storage capacity of the pond to 63,175 m^3;

- plugging the pond's east bank drainage outlets and infilling of an approximately 80 m long ditch immediately downstream of the pond outlet to promote infiltration of pond contents to groundwater;
- including all associated controls and appurtenances.

all in accordance with Application for Approval of Municipal and Private Sewage Works submitted by The Corporation of the City of Clarence-Rockland dated April 13, 2005, and drawings and design brief prepared by Stantec Consulting Ltd., Ottawa, Ontario.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

"*Act* " means the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended;

"*Certificate* " means this entire certificate of approval document, issued in accordance with Section 53 of the *Act* , and includes any schedules;

"*Director* " means any *Ministry* employee appointed by the Minister pursuant to section 5 of the *Act* ;

"*District Manager* " means the District Manager of the Kingston District Office of the Ministry;

"*Ministry* " means the Ontario Ministry of the Environment;

"*Owner* " means The Corporation of the City of Clarence-Rockland and includes its successors and assignees;

"Previous Works " means those portions of the sewage works previously constructed and approved under a certificate of approval;

"Proposed Works " means the sewage works described in the *Owner* 's application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate* ;

"*Regional Director* " means the Regional Director of the Eastern Region of the Ministry;

"*Works* " means the sewage works described in the *Owner* 's application, this *Certificate* and in the supporting documentation referred to herein, to the extent approved by this *Certificate* and includes both *Previous Works* and *Proposed Works* .

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

(1) The *Owner* shall ensure that any person authorized to carry out work on or operate any aspect of the *Works* is notified of this *Certificate* and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

(2) Except as otherwise provided by these Conditions, the *Owner* shall design, build, install, operate and maintain the *Works* in accordance with the description given in this *Certificate* , the application for approval of the works and the submitted supporting documents and plans and specifications as listed in this *Certificate* .

(3) Where there is a conflict between a provision of any submitted document referred to in this *Certificate* and the Conditions of this *Certificate*, the Conditions in this *Certificate* shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the listed submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The requirements of this *Certificate* are severable. If any requirement of this *Certificate*, or the application of any requirement of this *Certificate* to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this certificate shall not be affected thereby.

2. EXPIRY OF APPROVAL

The approval issued by this *Certificate* will cease to apply to those parts of the *Works* which have not been constructed within five (5) years of the issuance date of this *Certificate*.

3. CHANGE OF OWNER

(1) The *Owner* shall notify the *District Manager* and the *Director*, in writing, of any of the following changes within 30 days of the change occurring:

(a) change of *Owner*;

(b) change of address of the *Owner*;

(c) change of partners where the *Owner* is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B17 shall be included in the notification to the *District Manager*;

(d) change of name of the corporation where the *Owner* is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C 39 shall be included in the notification to the *District Manager*;

(2) In the event of any change in ownership of the *Works*, other than a change to a successor municipality, the *Owner* shall notify in writing the succeeding owner of the existence of this *Certificate*, and a copy of such notice shall be forwarded to the *District Manager* and the *Director*.

4. SURFACE WATER MONITORING

(1) The *Owner* shall carry out the following surface water monitoring program. Surface water grab samples shall be collected during spring (April/May), Summer (August), and Fall (November) from the designated sampling locations and shall be analyzed for the parameters listed in Table 1.

Table 1 - Surface Water Monitoring Sampling Locations: GS11, GS12, GS14		
Parameter		**Field Monitoring Parameter**
Calcium	Silver	Conductivity (Field)
Magnesium	Strontium	pH (Field)
Sodium	Sulphur	Temperature
Potassium	Thallium	Dissolved Oxygen
Aluminum	Titanium	Water Levels***
Barium	Vanadium	
Beryllium	Zinc	
Boron	Alkalinity	
Cadmium	BOD5	
Chromium	TDS	
Cobalt	Chloride	
Copper	Nitrate	
Iron	Nitrite	
Lead	Sulphate	
Manganese	TKN	
Mercury	Ammonia	
Molybdenum	COD	
Nickel	DOC	
Total Phosphorus	Phenols	
Silicon	Hardness*	
	Un-ionized Ammonia**	

Note: * Hardness - calculated from laboratory analyses results of calcium and manganese

** Un-ionized Ammonia - calculated from laboratory analyses results for ammonia and field measurements for pH and temperature.

*** Water levels shall be measured at staff gauges installed for the designated sampling points.

(2) The *Owner* shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the surface water monitoring activities

required by subsection (1)

5. GROUNDWATER MONITORING

(1) The *Owner* shall undertake groundwater monitoring in accordance with Conditions 46 (a) and 46 (c) of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time.

(2) The *Owner* shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the groundwater monitoring activities required by subsection (1)

6. OPERATIONS AND MAINTENANCE

(1) The *Owner* shall undertake an inspection of the condition of the stormwater management facility, at least once a year, and undertake any necessary cleaning and maintenance to prevent the excessive build-up of sediment and/or decaying vegetation.

(2) The *Owner* shall maintain a logbook to record the results of the stormwater management facility inspections and any cleaning and maintenance operations undertaken and shall keep the logbook at the site or operational office of the *Owner* for inspection by the Ministry.

(3) The *Owner* shall compare surface water monitoring results obtained from sampling point **GS12** under Condition 4 (1) with the concentrations of the trigger parameters listed in Table 2 to identify any potential leachate impact to surface water discharged from the site to the receiving stream.

Table 2 - Surface Water Trigger Parameters

Parameter	**Concentration** (mg/L)
Ammonia (un-ionized)	0.02
Boron	0.20
Iron	0.30
Total Phosphorus	0.05

(4) In the event that a monitoring result for any of the parameters listed in Table 2 exceeds its corresponding trigger concentration, the *Owner* shall immediately initiate the implementation of Condition 53 of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time.

(5) Surface water trigger parameters and concentrations outlined in Table 2 under subsection

(3) shall be modified from time to time **only** after receiving a written concurrence from the *District Manager* or an approval from the Director designated for the purpose of Section 37 of the *Environmental Protection Act* .

7. REPORTING

(1) The *Owner* shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to *Ministry* staff.

(2) The *Owner* shall prepare, and submit to the *District Manager* , an annual performance report as a separate section of the annual report required under Condition 63 of the Provisional Certificate of Approval Waste Disposal Site Number A471203 Notice No. 1 issued on October 18, 2001 as amended from time to time. The first such report shall cover the first annual period following the commencement of operation of the *Works* and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all surface water monitoring data and comparison of results to the trigger concentrations outlined in Table 2 under Condition 6(3), including an overview of the success and adequacy of the *Works* .

(b) a description of any operating problems encountered and corrective actions taken;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the *Works* ;

(d) any other information the *District Manager* requires from time to time.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the *Works* are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the *Certificate* and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the owners their responsibility to notify any person they authorized to carry out work pursuant to this *Certificate* the existence of this *Certificate* .

2. Condition 2 is included to ensure that, when the *Works* are constructed, the *Works* will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is included to ensure that the *Ministry* records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the *Works* are made aware

of the *Certificate* and continue to operate the *Works* in compliance with it.

4. Condition 4 and 5 are included to enable the *Owner* to evaluate and demonstrate the performance of the *Works* , on a continual basis, so that the *Works* are properly operated and maintained at a level which is consistent with the design objectives specified in the *Certificate* and that the *Works* does not cause any impairment to the receiving watercourse.

5. Condition 6 is included to require that the *Works* be properly operated, maintained, and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.

6. Condition 7 is included to provide a performance record for future references, to ensure that the *Ministry* is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this *Certificate,* so that the *Ministry* can work with the *Owner* in resolving any problems in a timely manner.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act , R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 53, *Ontario Water Resources Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this 24th day of June, 2005

Mohamed Dhalla, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

SH/

c: District Manager, MOE Cornwall
Gerry Lalonde, Stantec Consulting Limited

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

Solid Non-Hazardous Waste Disposal Site Inspection Report

Client:	The Corporation of the City of Clarence-Rockland Mailing Address: 1560 Laurier St P.O. Box 909, Clarence-Rockland, Ontario, Canada, K4K 1P7 Physical Address: 1560 Laurier St, Clarence-Rockland, City, United Counties of Prescott and Russell, Ontario, Canada, K4K 1P7 Telephone: (613)446-6022, Extension: 2239, FAX: (613)446-1497, email: rcampeau@clarence-rockland.com Client #: 4328-4G5PYT, Client Type: Municipal Government, NAICS: 221310		
Inspection Site Address:	City of Clarence Rockland Waste Disposal Site Address: Lot: 15, Concession: 4, Geographic Township: CLARENCE, Clarence-Rockland, City, United Counties of Prescott and Russell District Office: Cornwall LIO GeoReference: Zone: , UTM Easting: , UTM Northing: , Latitude: 45.4652, Longitude: -75.1667 Site #: 7049-5RBRBL		
Contact Name:	Denis Longpre	**Title:**	Manager of Environment and Water, Infratrusture and Engineering
Contact Telephone:	(613)446-6022 **ext** 2299	**Contact Fax:**	(613)446-1497
Last Inspection Date:	2014/07/16		
Inspection Start Date:	2017/04/20	**Inspection Finish Date:**	2017/04/20
Region:	Eastern		

1.0 INTRODUCTION

On April 20, 2017, Ontario Ministry of Environment and Climate Change (Ministry) Senior Environmental Officer Melissa Lee, completed a Solid Non-Hazardous Waste Disposal Site Compliance Inspection of The City of Clarence-Rockland (City) Waste Disposal Site (Landfill), located on Lot 15, Concession 4, on the west corner of Lalonde and Labelle Roads in Bourget (Site). The Site is also known as the Bourget Landfill.

The purpose of the Ministry's solid non-hazardous waste disposal site inspection program is to ensure compliance with Ministry legislation and control documents, and are in conformance with policy and guidelines pertinent to active landfill sites. Specifically, this includes compliance with:

- Environmental Protection Act R.S.O. 1990 c. E.19 (EPA)
- Ontario Water Resources Act R.R.O. 1990 c. O.40 (OWRA)
- R.R.O. 1990 Regulation 347 "General Waste Management" (Reg. 347)
- Ontario Regulation 232/98 "Landfilling Sites" (O. Reg. 232/98)
- Environmental Compliance Approvals (ECAs)
- Orders (Provincial Officer's Orders and/or Director's Orders).
- Guideline B-7: Incorporation of the Reasonable Use Concept in Ministry Groundwater Management Activities

The Landfill accepts domestic and commercial solid non-hazardous wastes from within the boundaries of the City of Clarence-Rockland, including all municipal curbside pick-up. The Landfill is open to the public from 8:30 am - 5:00 pm

on Friday and Saturday and is also open to permit-holding contractors Monday to Thursday from 9:00 am - 10:00 am and 2:00 pm and 3:00 pm. The household hazardous waste depot located at the Landfill is open during the summer (April - October) during regular operating hours. The City also holds the occasional 'Free Day' when residents can bring their wastes to the landfill without any fee.

ECA No. A471203 (ECA) governs the waste disposal site. It permits solid non-hazardous waste (including asbestos, dewatered sewage sludge and contaminated soils as defined under Reg. 347) to be landfilled at the Site under specific conditions. The Ministry requires the site be operated, maintained and monitored in accordance with the ECA and related legislation to ensure environmental protection.

The inspection consisted of a review of the latest environmental monitoring program results and related reviews completed by Ministry technical staff, incidents reported since the last inspection and compliance with the current approvals for the Site as well as a physical site inspection to observe current site conditions and review records. The physical inspection included the following areas: the entrance and office building, the east side and top of the waste mound including the working face and material segregation areas, the stormwater management facility and snow disposal area.

Denis Longpré, Manager of Environment and Water, Infratrusture and Engineering and Jocelyn Chabot, Environmental Technician, both of the City of Clarence-Rockland, were available during the inspection to provide a Site tour and answer questions.

The inspection findings are detailed in Section 4.0 of this report and any actions required are detailed in Section 5.0. Overall, the Site appears to be having some impact on surrounding groundwater and surface water features which require some action on the part of the City. Of immediate concern is the relocation of the snow disposal area to another site as it is currently operating unapproved and may be contributing to off-site impacts. The City must also initiate the process of acquiring lands/groundwater rights to the west to resolve non-compliance with Guideline B-7.

Appendix A: Amended ECA No. A471203.

Appendix B: Ministry's Technical Support Section surface water unit comments on the 2012, 2013, 2014 and 2015 Annual Operations Monitoring Reports, dated August 26, 2016.

Appendix C: Ministry's Technical Support Section groundwater unit comments on the 2016 annual monitoring report, dated May 4, 2017.

Appendix D: E-mail dated April 13, 2017 sent to WSP Engineering regarding requirement to amend ECA No. A471203.

2.0 INSPECTION OBSERVATIONS

Certificate of Approval Number(s):
Amended Waste ECA No. A471203 issued on October 21, 2009 revokes and replaces all previous ECAs.

Notice No. 1 was issued on September 9, 2015 approving site plan changes from a proposed landfill entrance reconfiguration. The proposed changes would impact the stormwater facility (additional flows) and therefore Condition 2 (17) was included in ECA No. A471203 to amend the stormwater and leachate-impacted groundwater industrial sewage works ECA No. 3362-6D7PL4 with the updated site and drainage plans.

Notice No. 2 was issued on August 19, 2016 to extend a deadline for the submission of an application to amend ECA No. 3362-6D7PL4.

In 2017, after two rounds of tenders to undertake the site reconfiguration, the City decided to simplify the plan such that there was no new entrance to the site, there was no net increase in impervious surfaces and all buildings proposed to be constructed were only to replace existing ones with the exception of a scale and scale house. As such, it was determined in a meeting held with the City's consultants (WSP) and the undersigned officer that an amendment to ECA No. 3362-6D7PL4 would not be required.

An amendment to ECA No. A471203 is however required to a) update site plan changes per current reconfiguration plan b) remove Condition 2(17) requiring an amendment to ECA No. 3362-6D7PL4 (industrial sewage works). See the e-mail dated April 13, 2017 sent to WSP outlining this requirement, included as Appendix D to this report.

Please refer to Section 5.0 'Actions Required' for more details.

2.1 FINANCIAL ASSURANCE:

Specifics:
Financial assurance is not required for municipally-owned sites.

2.2 APPROVED AREA OF THE SITE:

Specifics:
The total Site area (property size) is 50 hectares and the approved landfilling area is 12 hectares. The landfilling area is clearly demarcated at the Site. According to Mr. Longpré, wastes were previously placed outside of approved elevation contours in Cell 1. Landfilling is currently active in cell 3; in 2018, landfilling will resume in Cell 1 and contours will be corrected.

2.3 APPROVED CAPACITY:

Specifics:
In 2001, the Ministry issued amended ECA No. A471203 approving a landfill expansion by an additional 740,000 cubic metres.

Based on the 2016 Annual Operations Monitoring Report prepared by Jp2G on behalf of the City, the current capacity based on rates of filling is 567,000 cubic metres or an additional 40 years.

2.4 ACCESS CONTROL:

Specifics:
Access to the Site is controlled by a locked gate and an attendant when the Landfill is open to the public. There is also a sign erected at the entrance and at regular intervals on the fence along the road warning against trespassing.

Fencing secures much of the Site where the public might attempt to access (along Lalonde Road). Additional fencing is required to complete the perimeter of the site; this work is ongoing.

2.5 COVER MATERIAL:

Specifics:
Interim cover material currently consists of sand and wood chips (wood chips are primarily received from the Waste Transfer Station on Industrielle Street - ECA No. 1998-6QQ13K). According to the 2016 annual operations report, final cover in the active cell (3) will likely be placed in 2018 (when they move back into Cell 1).

In May 2017, heavy rainfall caused major flooding in the area impacting many properties along the Ottawa River, upstream tributaries and low lying areas. Following the flooding event, 130,000 sandbags were collected from impacted properties (mostly residential). The used sandbags were taken to the landfill and sand will be used as cover material.

A tree planting initiative was also recently undertaken by the City that involved the planting of approximately 320 hybrid poplar trees on the landfill contours (260 southeast and 60 west of the landfill footprint) to reduce exposure to precipitation, reduce runoff and erosion, intercept litter and treat leachate.

2.6 WASTE BURNING:

Specifics:
The burning of waste is prohibited at the landfill under Condition 2 (6) of the ECA. Wastes are not burned at the landfill Site.

2.7 GROUNDWATER/SURFACEWATER IMPACT:

Specifics:
Surface Water

Local surface water drainage is to the north along the east of the Site via an on-site ditch that was realigned in 2009 around the current snow stockpile area. It converges with an existing roadside ditch (Labelle Road) which flows north into Cobb's Lake Creek, which in turn flows south/southeast into the South Nation River about 10 km downstream.

The landfill site also has an approved on-site wastewater pond (ECA No. 3362-6D7PL4) that receives surface water and leachate-impacted groundwater. Prior to approval in 2005, the pond also discharged to the northeast to Cobb's Lake Creek. The outlet has since been blocked and the contents infiltrate passively into groundwater.

The Ministry's Technical Support Section surface water unit reviewed and provided comments dated August 26, 2016 on the 2012, 2013, 2014 and 2015 Annual Operations Monitoring Reports. It is relevant to note that these annual reports were prepared by Stantec Consulting Ltd.; the City of Clarence-Rockland has since retained (effective 2016) Jp2G Consultants Inc. to carry out monitoring and reporting requirements of the ECA.

The surface water unit's comments indicate that there are a number of indicators that suggest leachate-impacted surface water is moving away from the landfill site via the east (realigned) ditch. This may be exacerbated/accelerated by the snow melt as the ditch is now realigned downgradient of the snow disposal area. When the ditch was realigned, the surface water monitoring stations that were being assessed in the previous ditch (GS20 and GS21) were lost. The surface water unit recommends they be reinstated. Jp2G also makes this recommendation in the 2016 annual monitoring report.

The surface water unit also proposed some changes to the surface water monitoring program's trigger mechanisms. Based on the current program, trigger concentration exceedances result in resampling at S2 rather than in all background locations. This may result in misrepresenation of actual impacts from the landfill site. As such, background stations GS17 and GS6 should also be assessed in a resample when triggered. Jp2G concurs with this recommendation in the 2016 annual performance report.

A copy of the Ministry's Technical Support Section surface water unit comments on the 2012, 2013, 2014 and 2015 Annual Operations Monitoring Reports, dated August 26, 2016 is included as Appendix B of this report.

Please refer to Section 5.0 'Actions Required' for more details.

Groundwater

Leachate-impacted groundwater appears to travel in two directions (east and west) due to a divide which transects the landfill site. There are reasonable use policy concentration exceedances reported for groundwater in both of these directions, however, the exceedances to the east appear to be related to other sources such as road de-icing. This determination is made by Jp2G in its 2016 annual monitoring report and is corroborated by the Ministry's Technical Support Section's groundwater unit's comments on the report dated May 4, 2017. The reasonable use policy concentration exceedances to the west are however more obviously caused by the landfill. As such, both Jp2G and the Ministry's technical support section agree that efforts should be taken to resolve reasonable use non-compliance by acquiring lands or groundwater rights to the west. This is an action required of this inspection.

As described in the Ministry's Technical Support Section groundwater unit comments on the 2016 annual monitoring report, dated May 4, 2017, the reviewer indicates that wells 18-92, G26-94 and G29-97 are to be maintained as compliance trigger wells to assess groundwater as part of the contingency plan in addition to the existing wells G37-01, G12-92, G42-10 and G43-11 for a total of seven (7) compliance monitoring wells.

A copy of the Ministry's Technical Support Section groundwater unit comments on the 2016 annual monitoring report, dated May 4, 2017 are attached to this report as Appendix C.

Please refer to Section 5.0 'Actions Required' of this report for more details.

Snow disposal

The landfill has served as a snow disposal site for a number of years (since at least 2002). Snow is currently stockpiled in the southwest corner of the Site (near the intersection of Labelle and Lalonde Roads).

In 2010, the City of Clarence-Rockland undertook an Environmental Assessment (EA) to evaluate possible locations for a municipally-run snow disposal site. At the time, snow was already being disposed of at the landfill and the City was looking for a second location for snow generated in the urban area. The EA was submitted to the Ministry who provided general comments on the technical aspects of the sites being considered. The Ministry's position was that the landfill site was not a suitable location in terms of the possible influence that snow melt may have on the migration of leachate-impacted groundwater off-site. Following the 2010 EA, the City settled on a snow disposal site in the industrial park on leased land, however this lease expires in 2017. Snow disposal at the landfill site also continued after the EA was completed.

Snow disposal sites may be exempt from requiring an ECA (for an industrial sewage works under Section 53 of the OWRA) if they meet the criteria set out under under Section 3(2) of Ontario Regulation 525/98. A snow disposal site located on a landfill site is however not exempt under this section as a landfill site is considered industrial land. The City

of Clarence-Rockland did not seek an ECA for the landfill snow disposal site and it is unlikely an ECA would have been issued based on opposition from the Ministry's technical support section regarding the siting on the landfill site. As such, the current snow disposal site is being used without approval and without support from the Ministry. Further, in both the Ministry's technical support section surface water unit August 26, 2016 comments and Jp2G's 2016 annual monitoring report, it is identified that the snow stockpile is likely accelerating the migration of the leachate plume off-site and impacting surface water receivers. There is also potential for groundwater impacts. The City must relocate the snow disposal site for the 2017-2018 season (i.e. no longer use site for snow disposal).

Please refer to Section 5.0 'Actions Required' for more details.

Other ECA Conditions

Condition 8 (9) of the ECA requires that temporary berms and ditches be constructed around the active waste disposal area, as necessary, to prevent extraneous surface water from contacting the active working face.

Based on the findings of this inspection and interviews with City staff, berms and ditches are not constructed on site for this purpose. Please commence this practice in landfilling operations.

Please refer to Section 5.0 'Actions Required' for more details.

2.8 LEACHATE CONTROL SYSTEM:

Specifics:
A vertical cut off wall is located south of the landfilling area redirects leachate-impacted groundwater away from the northern property line (at Lalonde Road).

A wastewater pond located on the landfill site, east of waste filling area, passively collects stormwater and some leachate-impacted groundwater. The pond is approved under ECA No. 3362-6D7PL4.

Compliance with the wastewater pond ECA was evaluated during this inspection; the findings are detailed in a separate Industrial Sewage Works inspection report.

2.9 METHANE GAS CONTROL SYSTEM:

Specifics:
There is no methane gas control system at the site. Gas vents passively from the landfill and monitors are installed inside buildings to ensure it does not collect in confined areas.

2.10 OTHER WASTES:

Specifics:
Diverted wastes

The landfill accepts wastes other than solid non-hazardous domestic and commercial wastes that are segregated for off-site management rather than landfilled:

- refrigeration equipment (refrigerants removed by certified technician)
- metal
- wood
- leaf and yard waste (most of it collected at the transfer station located at
- waste electronics
- concrete
- tires

These materials are segregated at the surface of the landfilling area (in boxes or designated areas, away from working face) and removed for off-site recycling/disposal, as described in the annual design and operations manual. The only exception is chipped wood which is primarily brought to the landfill site from the leaf and yard waste transfer station owned by the City in Rockland (ECA No. 1998-6QQ13K); chipped wood is mixed with sand and used as cover material at the landfill.

Household hazardous wastes

A household hazardous waste depot is also located at the entrance to the landfill. It is open to the public for regular operating hours between April and October each year. All wastes are removed by Drain-All (approved hazardous waste hauler). The household hazardous waste depot is a gated, secured area with various drums for the collection of liquid wastes as well as a refurbished sea can equipped with secondary containment, for smaller items such as paint cans. There are no records of issues with the function of this depot.

Currently, site changes are underway (construction or a new entrance, installation of a scale and new buildings) that also involves the construction of a new household hazardous waste depot.

Wastes generated during May 2017 flooding event

As a result of the May 2017 flooding event, the City held special collection days in May and June 2017 for household non-hazardous and demolition wastes. Residents were asked to bring household hazardous wastes directly to the landfill site for disposal at their depot. There were also permits issued to any residents who wished to bring wastes immediately to the landfill site during regular operating hours.

As described in the section above about cover material, a total of 130,000 sandbags used in the flooded areas were collected by the City and taken to the landfill site for use in cover material.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

Previous inspection report (2014)

The previous inspection report identified the following non-compliance issues/environmental concerns:

- landfill gas odours on-site;
- leachate breakout in the west discharge ditch and;
- mixed wastes and soil (from excavation of the former Notre Dame Landfill) were being placed at the top of the mound for future screening to recover some soil.

Cell 2 was capped and the Ministry provided guidance in the inspection report to review landfill operations to reduce landfill leachate runoff and advised of the Ministry's expectation to ensure wastes mixed with soil are incorporated into the landfill and capped by December of 2014.

These matters were not identified as issues in the current inspection with the exception of a leachate breakout found during the site visit on the east side of the mound, almost at ground level. It was corrected by the City in the weeks following the inspection with the excavation of the area, placement of bentonite mats and backfilling. The matter is considered resolved.

Incidents (2014-2017)

Three fire incidents at the landfill site were reported in the last two years. On all occasions, the fires did not result in significant or off-site environmental impact. The source of the fires were ignitable wastes unseen by operator in the domestic wastes accepted at the site (in garbage bags) and on one occasion, it is believed the wood chip pile may have reached a high temperature and combusted.

Following the first fire incident (May 2015), efforts were made to improve emergency response and report the incidents in accordance with the ECA and the EPA. The details to be included in an emergency response procedure are not specifically listed in the ECA, however, the ECA does require personnel to be trained in emergency response procedures and a report must be submitted to the ministry following an emergency situation at the landfill site, such as a fire. A landfill site emergency plan was developed in November 2015 and submitted to the Ministry. It details the actions that will be taken under various emergencies; with respect to fires, there are details to promptly report to the Ministry and allow for the incident to immediately be taken over by the fire department (as opposed to having on-site staff managing fire incidents). This matter is considered addressed.

4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)

Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate?

No

Specifics:

Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material ?
No

Specifics:

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?
No

Specifics:

Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?
Yes

Specifics:
The City is using an area of the landfill site for snow disposal without approval. Based on information contained in the 2016 annual monitoring report and recent Ministry technical support section comments received by the undersigned officer, the use of the snow disposal may be contributing to off-site environmental impacts. The City must relocate the snow disposal site by the 2017-2018 season.

The current surface water monitoring program lacks precision as the surface water condition to the east is not well described. Since the realignment of the ditch in 2009, sampling points downgradient of the landfilling area were lost. The City's consultant and the Ministry agree that eliminated surface water sampling points GS20 and GS21 should be reinstated.

The surface water monitoring program fails to accurately identify the source of surface water trigger concentration exceedances by only resampling one background surface water station when an exceedance is observed. As such, the City's consultant and the Ministry agree that when a surface water trigger concentration exceedance is observed, resampling should occur in surface water background monitoring stations GS17 and GS6, in addition to S2 which is the only background station currently part of the program.

Reasonable use criteria exceedances are consistently being observed west of the landfill site at the property boundary. As such, the City is in non-compliance with the reasonable use policy and must take steps to resolve this matter by extending the contaminant attenuation zone. Lands or groundwater rights must be acquired and registered on title.

Based on comments received by the Ministry technical support section's groundwater unit, the four wells used to assess compliance for contingency purposes are insufficient to properly assess the groundwater condition of the entire site, as it continues to develop. As such, the groundwater monitoring program must monitor the following seven wells for compliance in the trigger mechanism program:18-92, G26-94, G29-97, G37-01, G12-92, G42-10 and G43-11.

The City has not been installing temporary berms and ditches around the active waste disposal area to prevent extraneous surface water from contacting the working face in accordance with Condition 8 (9) of the ECA. This should be implemented to ensure that the working face is not shedding stormwater that has come into contact with wastes, thereby possibly increasing the contaminant loading on the natural environment.

Was there any indication of minor administrative non-compliance?
Yes

Specifics:
Due to recent site plan changes made resulting from the new landfill entrance reconfiguration, ECA No. A471203 must be amended to a) update site plan and b) remove Condition 2(17) requiring an amendment to ECA No. 3362-6D7PL4 (industrial sewage works).

5.0 ACTION(S) REQUIRED

1. By no later than August 31, 2017, please provide the undersigned officer with a response to this inspection report which details the efforts that will be taken to:

   - amend ECA No. A471203 to a) update site plan changes per current reconfiguration plan and b) remove Condition 2(17) requiring an amendment to ECA No. 3362-6D7PL4 (industrial sewage works).
   - discontinue snow disposal at the landfill site and provide an alternative site locations for the 2017-2018 winter season and beyond.
   - modify the current surface water monitoring program such that a) surface water sampling points GS20 and GS21 are reinstated to track surface water impacts east of the landfill site and b) GS17 and GS6 (in addition to S2) are all assessed in a resample when surface water trigger concentrations are exceeded as part of the contingency plan.
   - extend the contaminant attenuation zone (CAZ) at the west property boundary where reasonable use policy concentration exceedances have consistently been observed.
   - modify the current groundwater monitoring program such that wells 18-92, G26-94 and G29-97 are maintained as compliance trigger wells in addition to wells G37-01, G12-92, G42-10 and G43-11 for a total of seven (7) compliance monitoring wells.
   - install temporary berms and ditches around the active waste disposal area to prevent extraneous surface water from contacting the active working face.

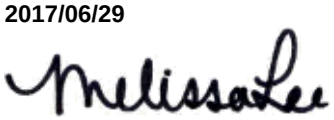
6.0 OTHER INSPECTION FINDINGS

7.0 INCIDENT REPORT

Applicable
2007-ALMQBJ

8.0 ATTACHMENTS

PREPARED BY:
Environmental Officer:
Name: **Melissa Lee**
District Office: **Cornwall Area Office**
Date: **2017/06/29**
Signature



REVIEWED BY:
District Supervisor:
Name: **Michael Seguin**
District Office: **Cornwall Area Office**
Date: **2017/06/30**

Signature:

File Storage Number: SI RU CR C4 610

Note:
"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory

requirements"

VIA email August 29th, 2017

Mrs. Melissa Lee
Senior Environmental Officer
Ministry of the Environment, Cornwall Area Office
113 Amelia Street
Cornwall ON K6H 3P1

RE: Solid Non-Hazardous Waste Disposal Site Inspection Report
Clarence-Rockland Landfill Site
Reference Number: 0440-AKURUK

Madam:

Further to your report dated June 30th, 2017 please find herein our response to address the noted deficiencies in order to bring our facility into compliance as per our ECA #A471203:

5.0 Action(s) Required

1. **Amend ECA No. A471203 to:**

   a) Update site plan changes per current reconfiguration plan and;
   b) Remove condition 2(17) requiring an amendment to ECA No.3362-6D7PL4 (industrial sewage works).

   i. The amendment to ECA No. A471203 to update site plan changes and remove condition 2(17) requiring an amendment to ECA No.3362-6D7PL4 is currently in progress. The project manager from the firm Colliers Project Manager currently overseeing the project is mandated to complete this amendment.

The application for this amendment has been submitted in the week of August 14th, 2017.

2. **Discontinue snow disposal at the landfill site and provide an alternative site locations for the 2017-2018 winter season and beyond.**

   The City agrees to discontinue the snow disposal at the landfill site and is committed in finding a new location. We would like to meet with you in the next upcoming days to discuss the implementation timelines.

3. **Modify the current surface water monitoring program such that:**
   a) surface water sampling points GS20 and GS21 are reinstated to track surface water impacts east of the landfill site, and;

   b) GS17 and GS6 (in addition to S2) are all assessed in a resample when surface water trigger concentrations are exceeded as part of the contingency plan.

   1. Reinstatement of surface water sampling points GS20 and GS21 have been recommended by Jp2g and will be implemented with the 2017 fall sampling program. Jp2g have been made aware of the MOECC analysis of the 2012-2015 annual operations reports and annual monitoring reports for groundwater and surface water programs. Resampling of GS17, GS6 and S2 when surface water trigger concentrations are exceeded is already in place and should be reflected in the 2017 annual report if this situation is encountered.

4. **Extend the contaminant attenuation zone (CAZ) at the west property boundary where reasonable use policy concentration exceedances have consistently been observed.**

   1. Almost immediately upon receiving the monitoring report from Jp2g, the City began discussions regarding the recommendation of extending the contamination attenuation zone (CAZ) at the westerly property line. It should be noted that the exact size of land required to be added has not been determined and we are currently not able to proceed with either land purchase or ground contamination rights without this vital information.

      Following our dialogue with Jp2g in the weeks following publication of the 2016 annual monitoring report, it has been agreed that sampling will be continue in 2018 for confirmation purposes. As you can appreciate, land acquisition for landfills can be a complex legal matter and publicly sensitive subject.

The next step will be to, using 2017 and previous years sampling data, have Jp2g recommended both the type and size of the additional CAZ required on the west property boundary limit of the landfill site.

5. **Modify the current groundwater monitoring program such that wells 18-92, GS26-94 and G29-97 are maintained as compliance trigger wells in addition to wells G37-01, G12-92, G42-10 and G43-11 for a total of seven (7) compliance monitoring wells.**

    1. Jp2g has been advised to modify the groundwater monitoring program to include all following seven monitoring well as compliance trigger wells: 18-92, GS26-94, G29-97, G37-01, G12-92 and G42-10. This should be effective in the fall 2017 sampling.

6. **Install temporary berms and ditches around the active waste disposal area to prevent extraneous surface water from contacting the active working face.**

    1. The City will construct a berm located at the northern final toe of waste by December 31st 2017.

Denis Longpré
Environment Manager

c.c. Mr. Dave Darch, P. Eng., Interim-Director, Infrastructure and Planning department, City of Clarence-Rockland
Mr. Jocelyn Chabot, Environmental Technician, City of Clarence-Rockland
Mr. Andrew Buzza, P. Geo., Project Manager, Jp2g Consultants Inc.

APPENDIX D

Site Stratigraphy and Monitoring Well Construction

LIST OF ABBREVIATIONS

The abbreviations commonly employed on Records of Boreholes, on figures and in the text of the report are as follows:

I. SAMPLE TYPE

AS	Auger sample
BS	Block sample
CS	Chunk sample
DO	Drive open
DS	Denison type sample
FS	Foil sample
RC	Rock core
SC	Soil core
ST	Slotted tube
TO	Thin-walled, open
TP	Thin-walled, piston
WS	Wash sample

II. PENETRATION RESISTANCE

Standard Penetration Resistance (SPT), N:
The number of blows by a 63.5 kg. (140 lb.) hammer dropped 760 mm (30 in.) required to drive a 50 mm (2 in.) drive open Sampler for a distance of 300 mm (12 in.)

Dynamic Penetration Resistance; N_d:
The number of blows by a 63.5 kg (140 lb.) hammer dropped 760 mm (30 in.) to drive Uncased a 50 mm (2 in.) diameter, 60^0 cone attached to "A" size drill rods for a distance of 300 mm (12 in.).

PH:	Sampler advanced by hydraulic pressure
PM:	Sampler advanced by manual pressure
WH:	Sampler advanced by static weight of hammer
WR:	Sampler advanced by weight of sampler and rod

Pelzo-Cone Penetration Test (CPT):
An electronic cone penetrometer with a 60^0 conical tip and a projected end area of 10 cm^2 pushed through ground at a penetration rate of 2 cm/s. Measurements of tip resistance (Q_t), porewater pressure (PWP) and friction along a sleeve are recorded Electronically at 25 mm penetration intervals.

III. SOIL DESCRIPTION

(a) Cohesionless Soils

Density Index (Relative Density)	N Blows/300 mm Or Blows/ft.
Very loose	0 to 4
Loose	4 to 10
Compact	10 to 30
Dense	30 to 50
Very dense	over 50

(b) Cohesive Soils

Consistency	$C_{u2}S_u$ Kpa	Psf
Very soft	0 to 12	0 to 250
Soft	12 to 25	250 to 500
Firm	25 to 50	500 to 1,000
Stiff	50 to 100	1,000 to 2,000
Very stiff	100 to 200	2,000 to 4,000
Hard	Over 200	Over 4,000

IV. SOIL TESTS

w	water content
w_p	plastic limited
w_l	liquid limit
C	consolidaiton (oedometer) test
CHEM	chemical analysis (refer to text)
CID	consolidated isotropically drained triaxial test[1]
CIU	consolidated isotropically undrained triaxial test with porewater pressure measurement[1]
D_R	relative density (specific gravity, G_s)
DS	direct shear test
M	sieve analysis for particle size
MH	combined sieve and hydrometer (H) analysis
MPC	modified Proctor compaction test
SPC	standard Proctor compaction test
OC	organic content test
SO_4	concentration of water-soluble sulphates
UC	unconfined compression test
UU	unconsolidated undrained triaxial test
V	field vane test (LV-laboratory vane test)
γ	unit weight

Note:
1. Tests which are anisotropically consolidated prior shear are shown as CAD, CAU.

LIST OF SYMBOLS

Unless otherwise stated, the symbols employed in the report are as follows:

I. GENERAL

π	= 3.1416
ln x, natural logarithm of x	
$\log_{10}$ x or log x, logarithm of x to base 10	
g	Acceleration due to gravity
t	time
F	factor of safety
V	volume
W	weight

II. STRESS AND STRAIN

γ	shear strain
Δ	change in, e.g. in stress: $\Delta\sigma'$
ε	linear strain
ε_v	volumetric strain
η	coefficient of viscosity
ν	Poisson's ratio
σ	total stress
σ'	effective stress ($\sigma' = \sigma''$-u)
σ'_{vo}	initial effective overburden stress
$\sigma_1\sigma_2\sigma_3$	principal stresses (major, intermediate, minor)
σ_{oct}	mean stress or octahedral stress $=(\sigma_1+\sigma_2+\sigma_3)/3$
τ	shear stress
u	porewater pressure
E	modulus of deformation
G	shear modulus of deformation
K	bulk modulus of compressibility

III. SOIL PROPERTIES

(a) Index Properties

$\rho(\gamma)$	bulk density (bulk unit weight*)
$\rho_d(\gamma_d)$	dry density (dry unit weight)
$\rho_w(\gamma_w)$	density (unit weight) of water
$\rho_s(\gamma_s)$	density (unit weight) of solid particles
γ'	unit weight of submerged soil ($\gamma'=\gamma-\gamma_w$)
D_R	relative density (specific gravity) of solid particles ($D_R = \rho_s/\rho_w$) formerly (G_s)
e	void ratio
n	porosity
S	degree of saturation

* Density symbol is ρ. Unit weight symbol is γ where $\gamma=\rho g$ (i.e. mass density x acceleration due to gravity)

(a) Index Properties (cont'd.)

w	water content
w_l	liquid limit
w_p	plastic limit
I_p	plasticity Index=(w_l-w_p)
w_s	shrinkage limit
I_L	liquidity index=$(w-w_p)/I_p$
I_c	consistency index=$(w_l-w)/I_p$
e_{max}	void ratio in loosest state
e_{min}	void ratio in densest state
I_D	density index=$(e_{max}-e)/(e_{max}-e_{min})$ (formerly relative density)

(b) Hydraulic Properties

h	hydraulic head or potential
q	rate of flow
v	velocity of flow
i	hydraulic gradient
k	hydraulic conductivity (coefficient of permeability)
j	seepage force per unit volume

(c) Consolidation (one-dimensional)

C_c	compression index (normally consolidated range)
C_r	recompression index (overconsolidated range)
C_s	swelling index
C_a	coefficient of secondary consolidation
m_v	coefficient of volume change
c_v	coefficient of consolidation
T_v	time factor (vertical direction)
U	degree of consolidation
σ'_p	pre-consolidation pressure
OCR	Overconsolidation ratio=σ'_p/σ'_{vo}

(d) Shear Strength

$\tau_p\tau_r$	peak and residual shear strength
ϕ'	effective angle of internal friction
δ	angle of interface friction
μ	coefficient of friction=tan δ
c'	effective cohesion
$c_u s_u$	undrained shear strength (ϕ=0 analysis)
p	mean total stress $(\sigma_1+\sigma_3)/2$
p'	mean effective stress $(\sigma'_1+\sigma'_3)/2$
q	$(\sigma_1-\sigma_3)/2$ or $(\sigma'_1-\sigma_3)/2$
q_u	compressive strength $(\sigma_1-\sigma_3)$
S_t	sensitivity

Notes: 1. $\tau=c'\sigma'\tan\phi'$
2. Shear strength=(Compressive strength)/2

LITHOLOGICAL AND GEOTECHNICAL ROCK DESCRIPTION TERMINOLOGY

WEATHERING STATE

Fresh: no visible sign of weathering

Faintly Weathered: weathering limited to the surface of major discontinuities.

Slightly weathered: penetrative weathering developed on open discontinuity surfaces but only slight weathering of rock material.

Moderately weathered: weathering extends throughout the rock mass but the rock material is not friable

Highly weathered: weathering extends throughout rock mass and the rock material is partly friable.

Completely weathered: rock is wholly decomposed and in a friable condition but the rock texture and structure are preserved.

BEDDING THICKNESS

Description	Bedding Plane Spacing
Very thickly bedded	>2 m
Thickly bedded	0.6 m to 2m
Medium bedded	0.2 m to 0.6 m
Thinly bedded	60 mm to 0.2 m
Very thinly bedded	20 mm to 60 mm
Laminated	6 mm to 20 mm
Thinly laminated	<6 mm

JOINT OR FOLIATION SPACING

Description	Spacing
Very wide	>3 m
Wide	1 – 3 m
Moderately close	0.3 – 1 m
Close	50 – 300 mm
Very close	<50 mm

GRAIN SIZE

Term	Size*
Very Coarse Grained	>60 mm
Coarse Grained	2 – 60 mm
Medium Grained	60 microns - 2mm
Fine Grained	2 – 60 microns
Very Fine Grained	<2 microns

Note: *Grains >60 microns diameter are visible to the naked eye.

O:\ Templates\Rock Description Terminology

CORE CONDITION

Total Core Recovery

The percentage of solid drill core recovered regardless of quality or length, measured relative to the length of the total core run.

Solid Core Recovery (SCR)

The percentage of solid drill core, regardless of length, recovered at full diameter, measured relative to the length of the total core run.

Rock Quality Designation (RQD)

The percentage of solid drill core, greater than 100 mm length, recovered at full diameter, measured relative to the length of the total core run. RQD varies from 0% for completely broken core 100% for core in solid sticks.

DISCONTINUITY DATA

Fracture Index

A count of the number of discontinuities (physical separations) in the rock core, including both naturally occurring fractures and mechanically induced breaks caused by drilling.

Dip with Respect to (W.R.T.) Core Axis

The angle of the discontinuity relative to the axis (length) of the core. In a vertical borehole a discontinuity with a 90^0 angle is horizontal.

Description and Notes

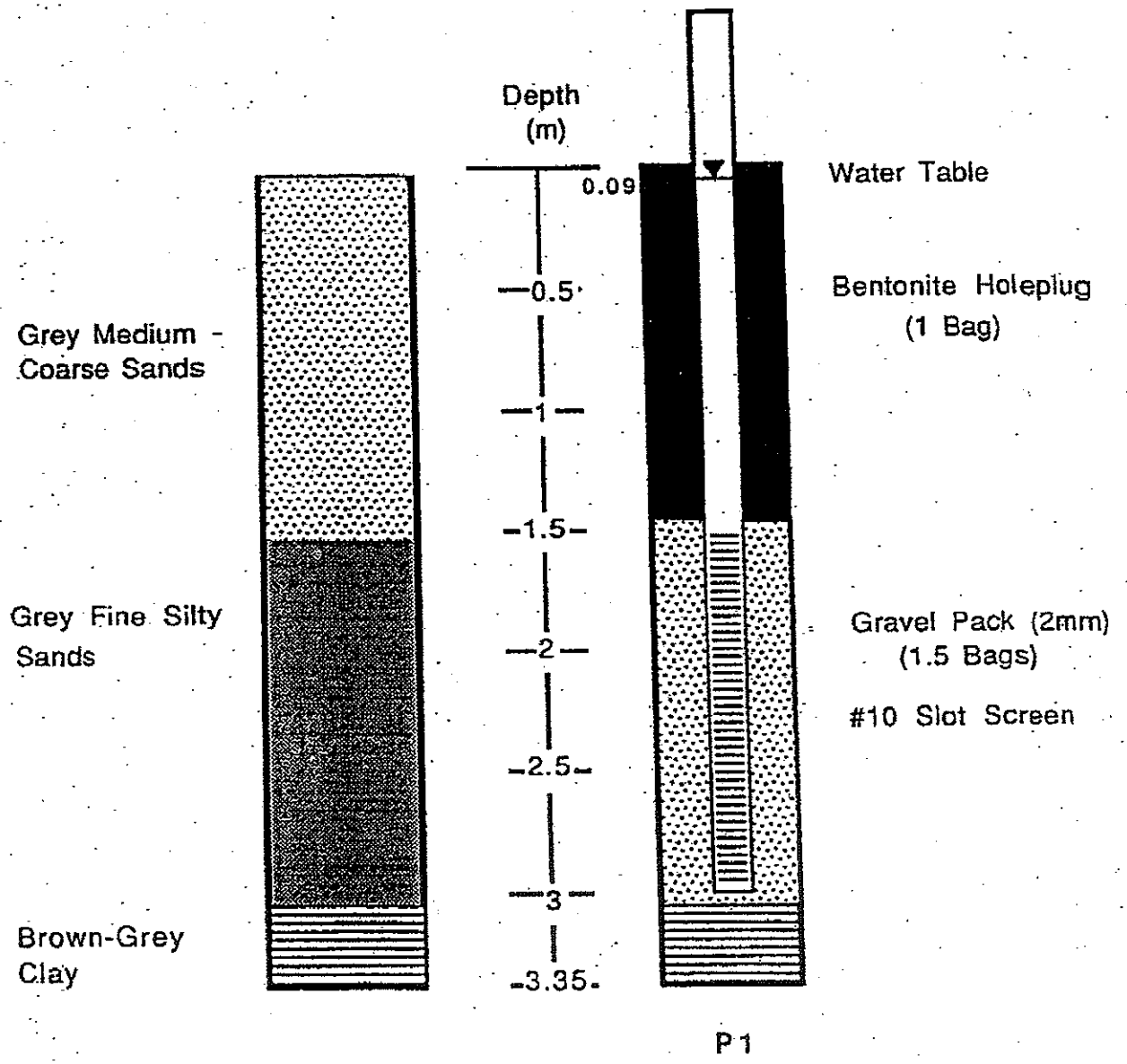
An abbreviated description of the discontinuities, whether naturally occurring separations such as fractures, bedding planes and foliation planes or mechanically induced features caused by drilling such as ground or shattered core and mechanically separated bedding or foliation surfaces. Additional information concerning the nature information concerning the nature of fracture surfaces and infillings are also noted.

Abbreviations

B –	Bedding	Ca-	Calcite
FO-	Foliation/Schistosity	P-	Polished
CL -	Cleavage	S-	Slickensided
SH -	Shear Plane/Zone	SM-	Smooth
VN-	Vein	R-	Ridged/Rough
F -	Fault	ST-	Stepped
CO-	Contact	PL-	Planar
J -	Joint	FL-	Flexured
FR-	Fracture	UE-	Uneven
MF -	Mechanical	W-	Wavy
A-	Angular	C-	Curved
BP-	Bedding Plane	H-	Hackly
BL-	Blast Induced	SL-	Sludge Coated
||	Parallel To	TCA-	To Core Axis
	Perpendicular To	STR-	Stress Induced

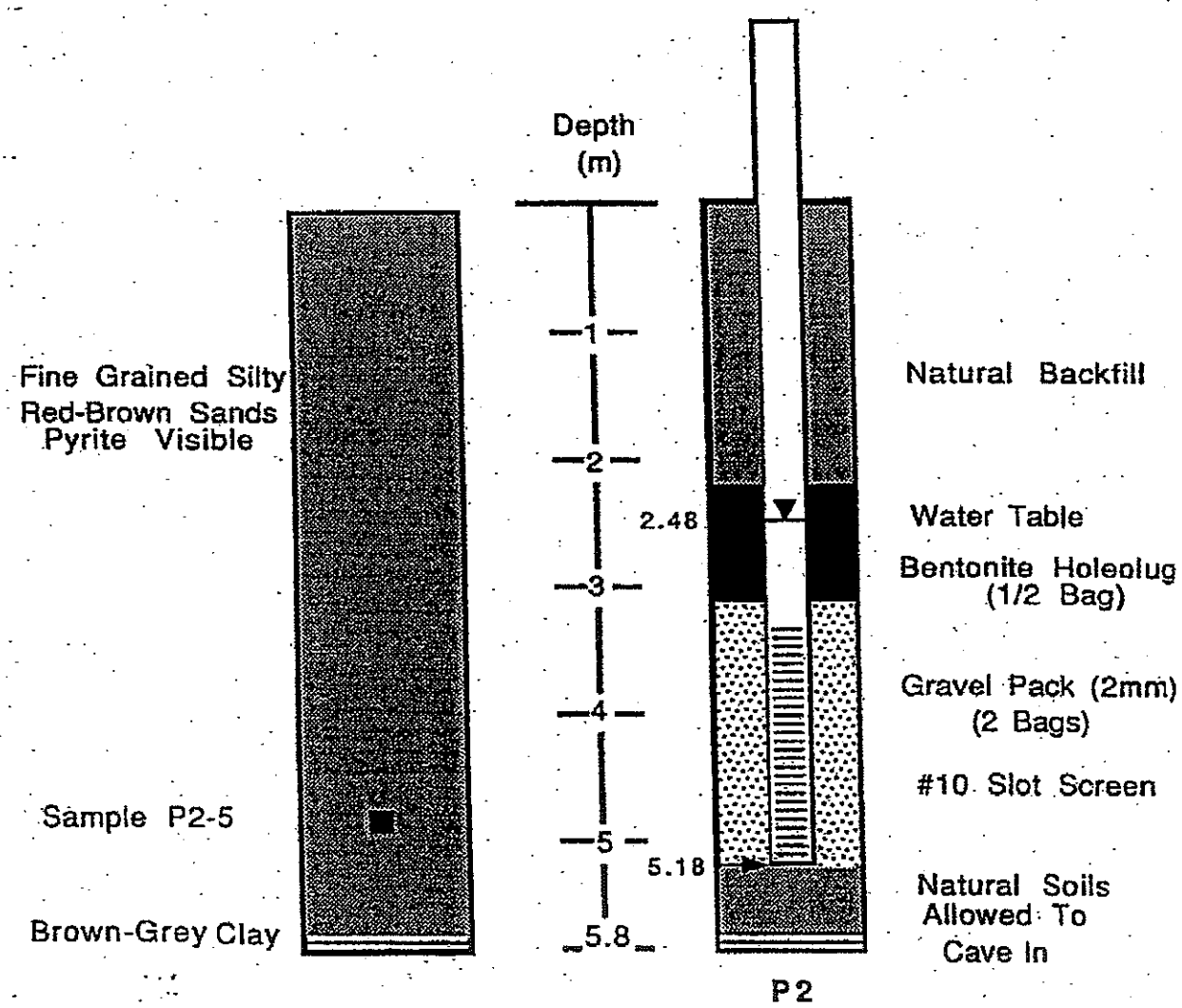
WELL LOG AND PIEZOMETER CONSTRUCTION DETAIL

CLARENCE TOWNSHIP P1 P1-90



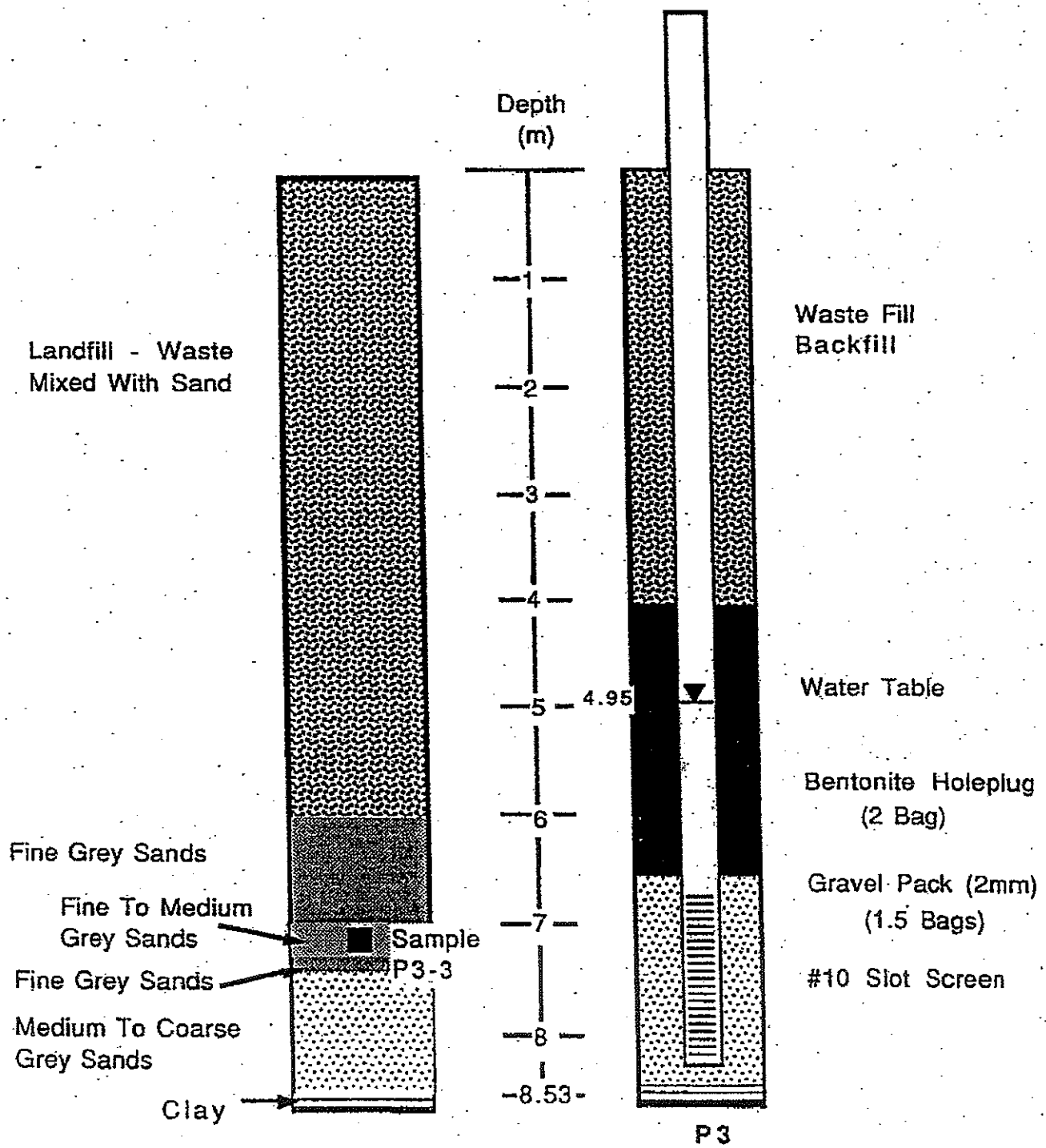
WELL LOG AND PIEZOMETER CONSTRUCTION DETAIL

CLARENCE TOWNSHIP P2 P2-90



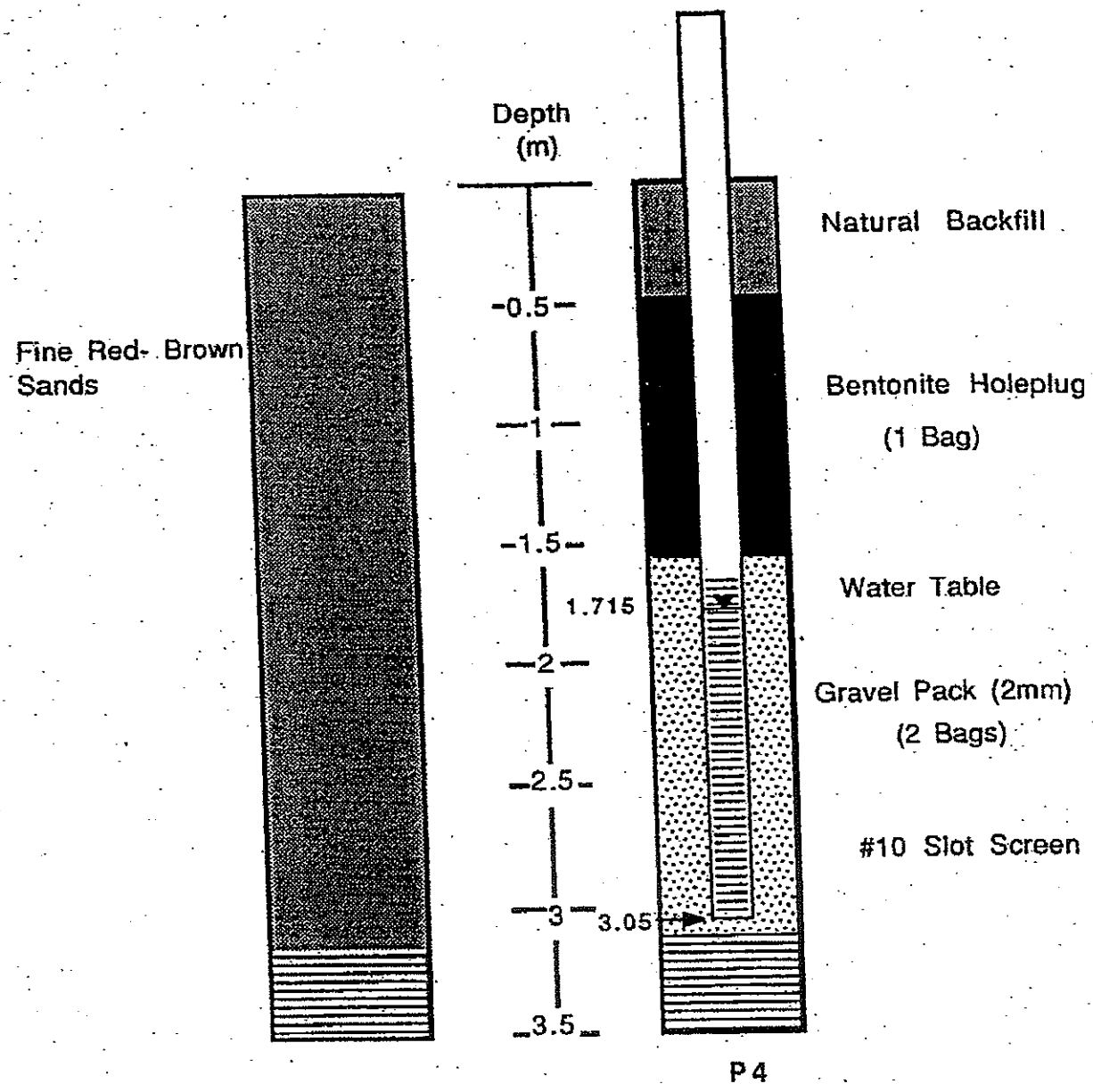
WELL LOG AND PIEZOMETER CONSTRUCTION DETAIL

CLARENCE TOWNSHIP P3 P3-90



WELL LOG AND PIEZOMETER CONSTRUCTION DETAIL

CLARENCE TOWNSHIP P4 P4-90

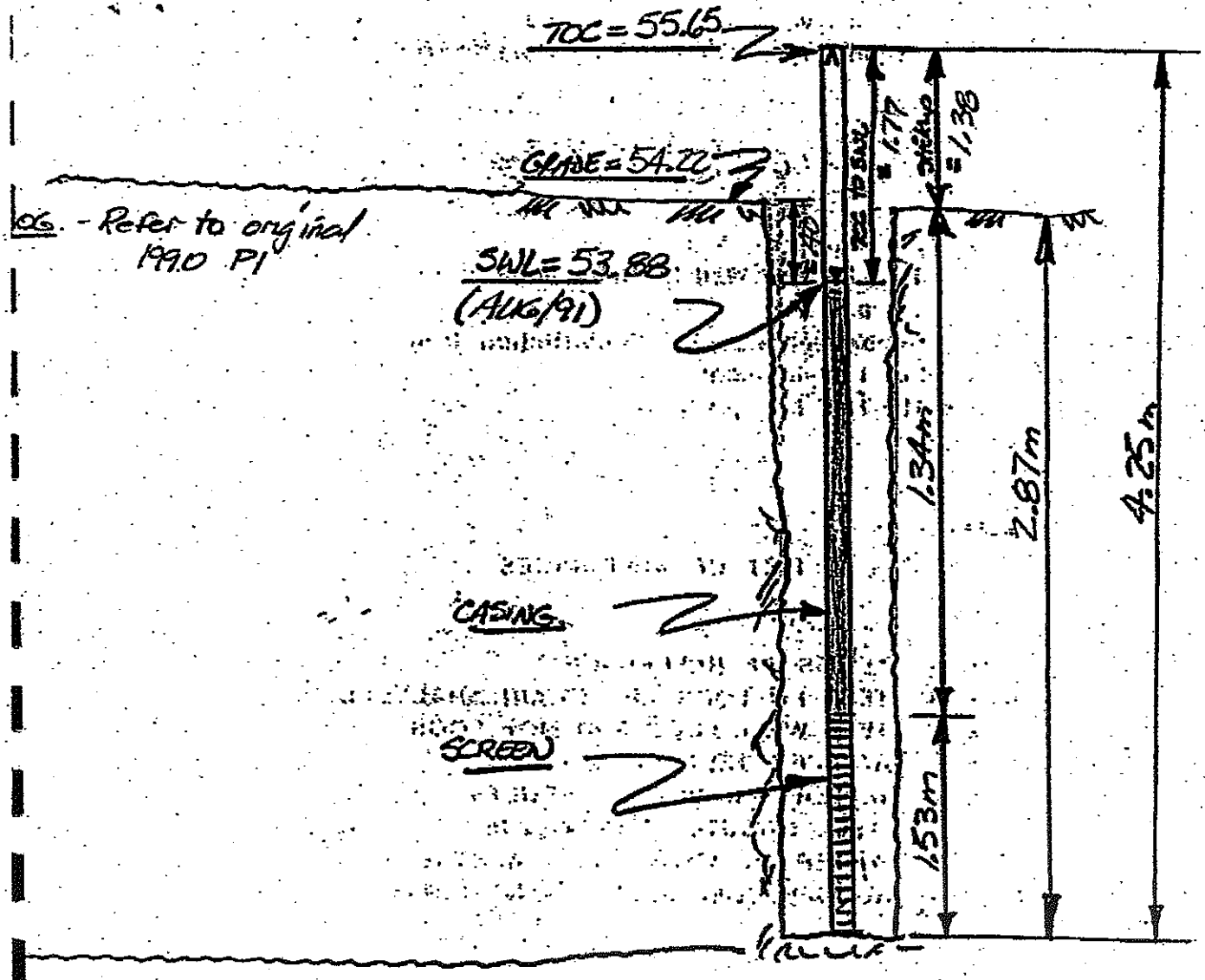


STANCON FILE 90-72

P1-91

Twp of Clarence Landfill Site

Piezometer - as built elevations for: P1'



TOC = Top of plastic well casing, not cap!

BOC = Bottom of casing (screen)

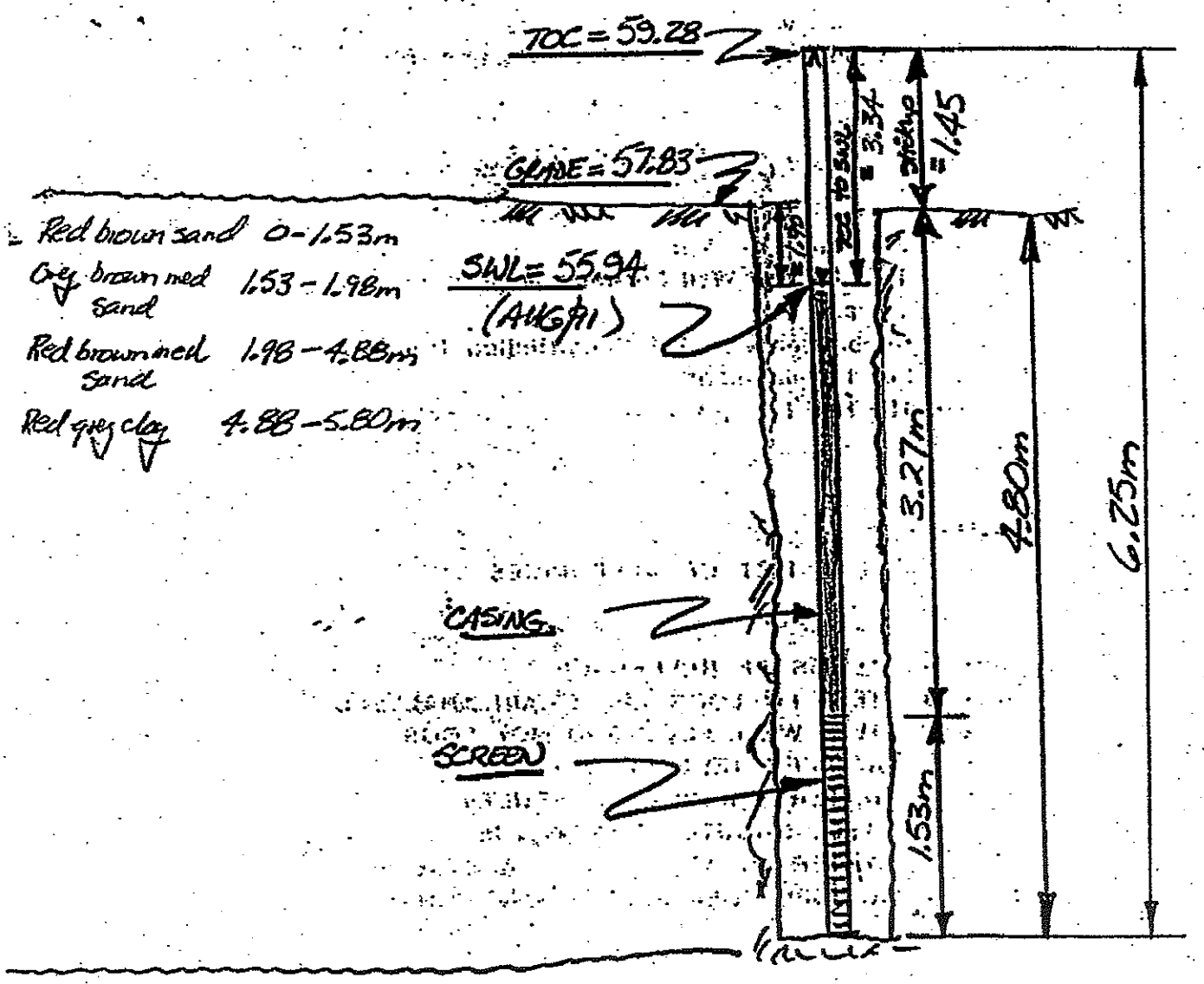
SWL = Static water level.

PANCON FILE 90-72

P5A-91

Up of Clarence Landfill Site

Piezometer - as built elevations for: P5-1 -



TOC = Top of plastic well casing, not cap!

BOC = Bottom of casing (screen)

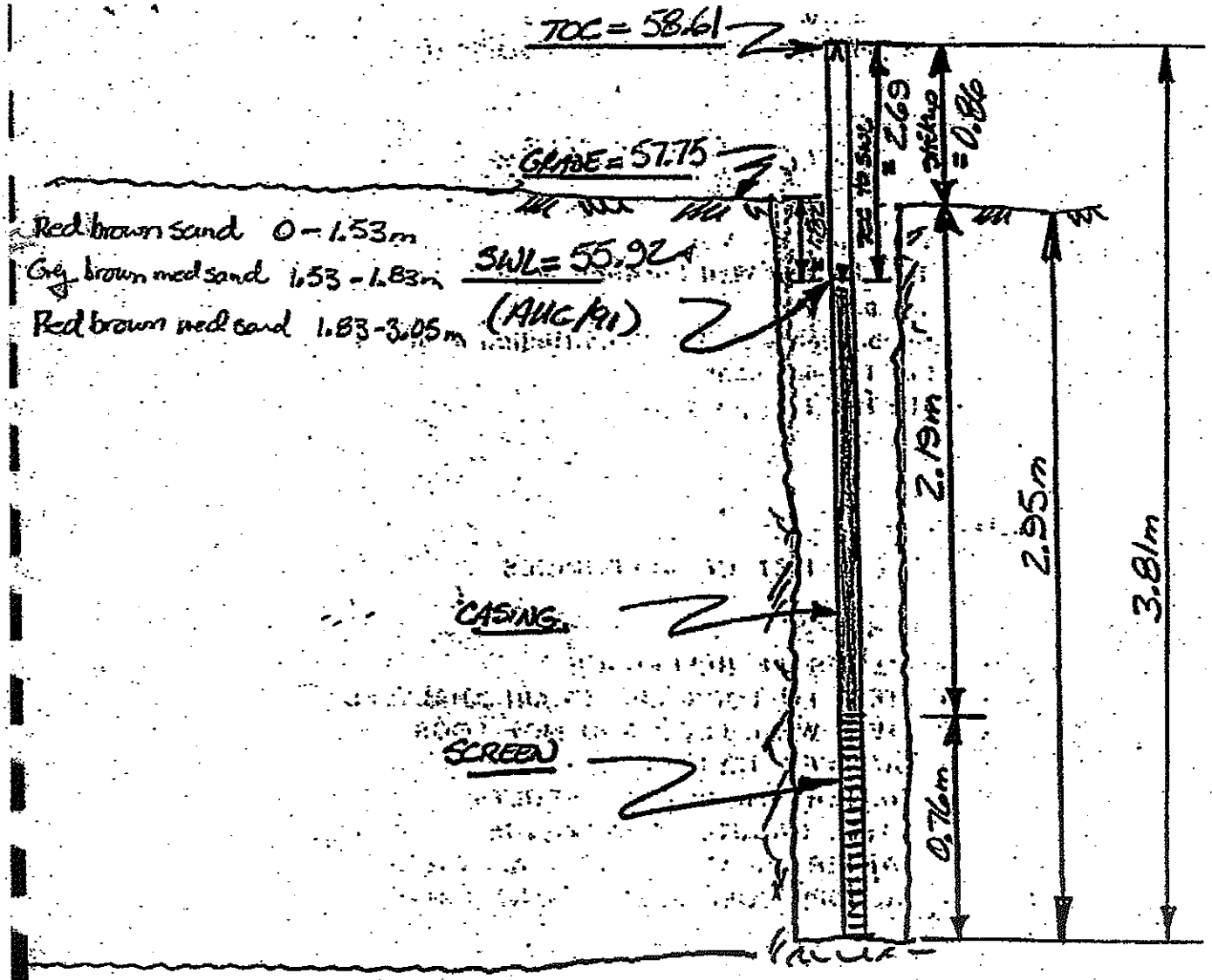
SWL = Static water level.

SPANCON FILE 90-72

P5B-91

Top of Clarence Landfill Site

Piezometer - as built elevations for: P5-2



TOC = Top of plastic well casing, not cap!

BOC = Bottom of casing (screen)

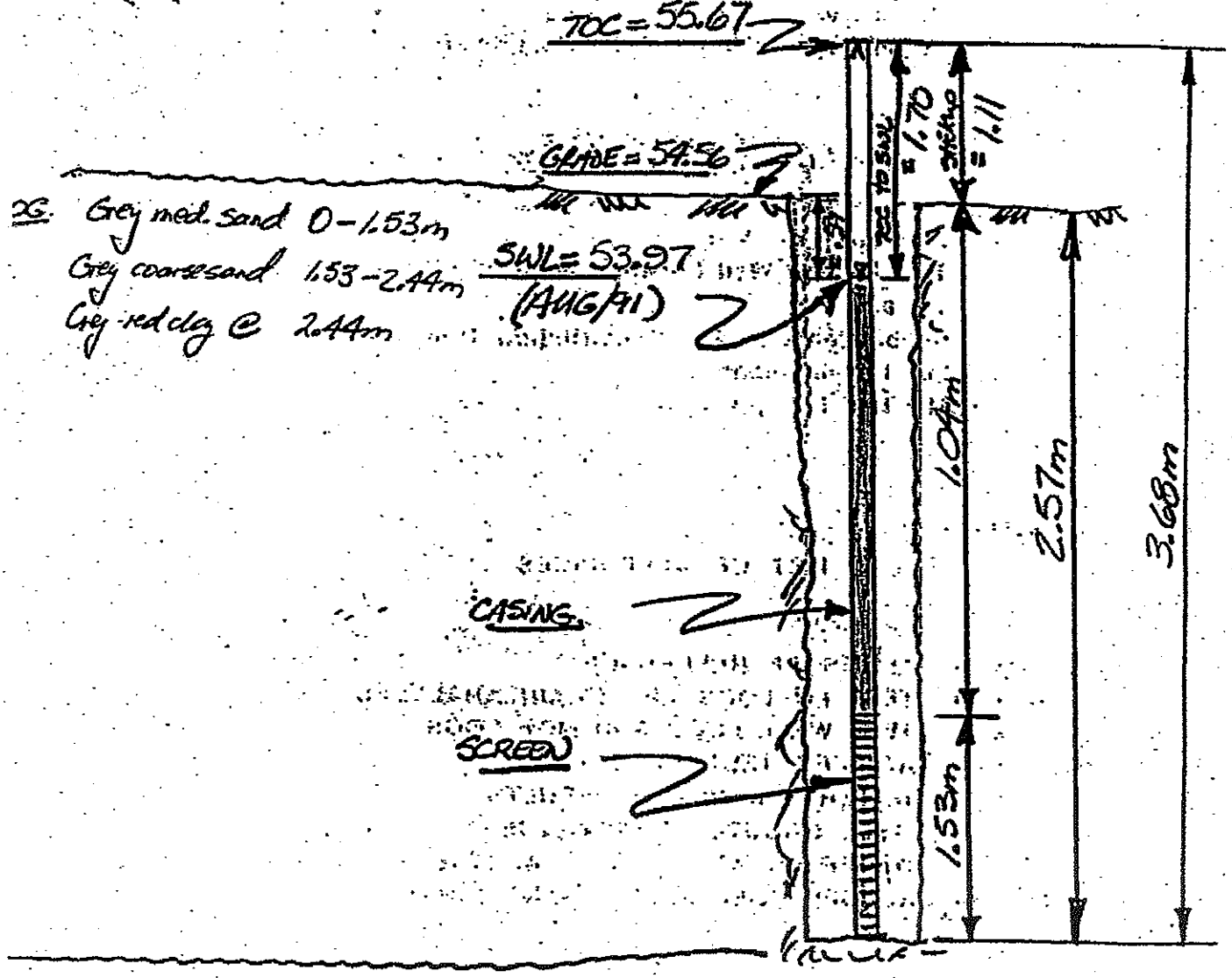
SWL = Static water level.

STANCON FILE 90-72

P6-91

Twp of Clarence Landfill Site

Piezometer - as built elevations for: P6



P6 Grey med. sand 0 - 1.53m
Grey coarse sand 1.53 - 2.44m
Grey red clay @ 2.44m

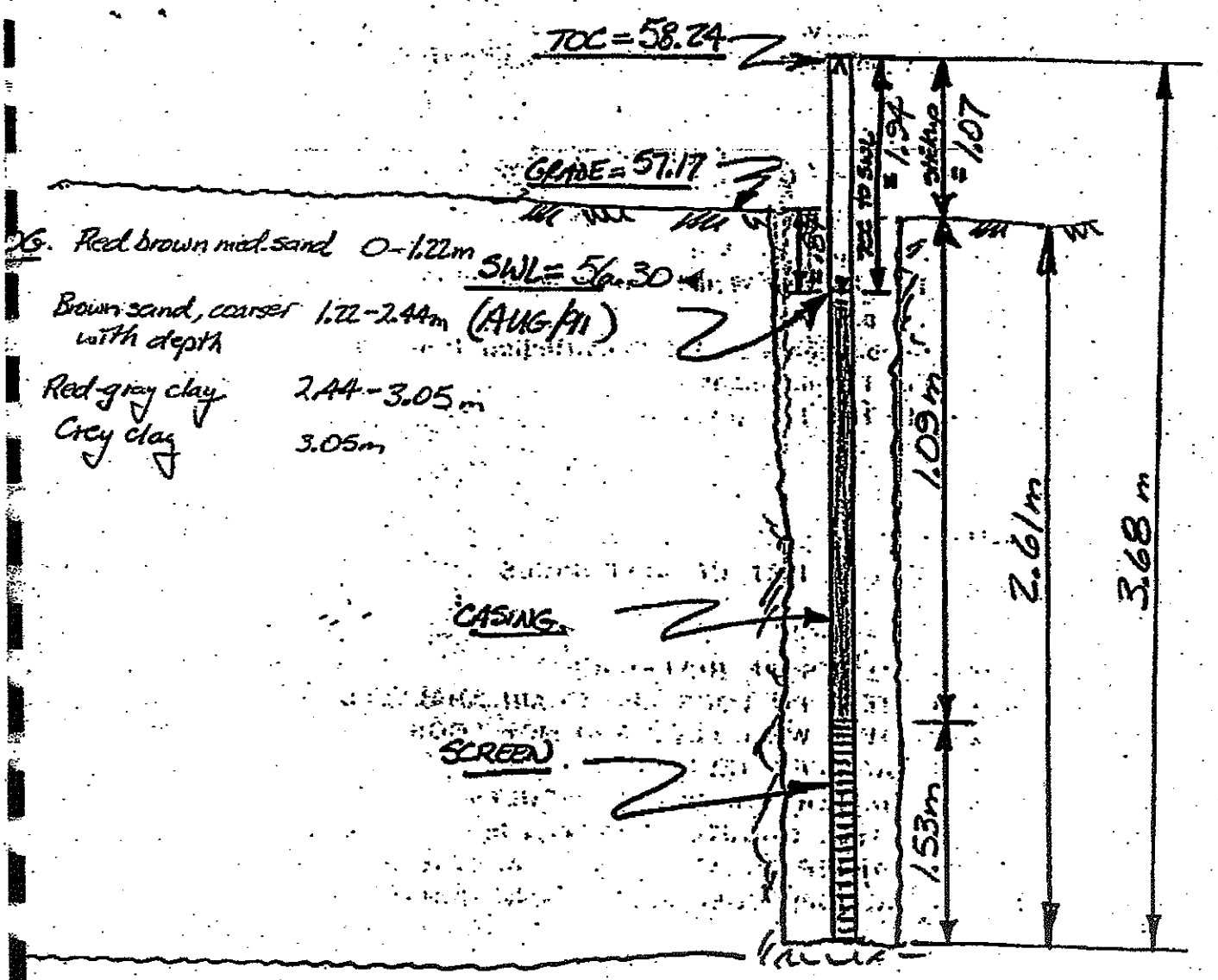
TOC = Top of plastic well casing, not cap!
BOC = Bottom of casing (screen)
SWL = Static water level.

STANCON FILE 90-72

Twp of Clarence Landfill Site

P7-91

Piezometer - as built elevations for: P7



TOC = Top of plastic well casing, not cap!

BOC = Bottom of casing (screen)

SWL = Static water level.

PROJECT: 921-2702

LOCATION: See Plan

LIF:

RECORD OF BOREHOLE G8-92

BORING DATE: April 6, 1992

SHEET 1 OF 2

DATUM: Geodetic

SAMPLER HAMMER, 63.5kg, DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (50 100 150 200) / % LEL (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp W Wl (20 40 60 80)	INSTALLATIONS
0	Power Auger 240mm Diam. (Hollow Stem)	Ground Surface		59.15								
		Brown SILTY fine SAND		0.00								
				58.91								
				0.24								
1		Very loose to loose brown stratified fine SAND			1	SS	5					Bentonite Seal
2					2	SS	5					Native Backfill
3					3	SS	WR		M			Well Screen C
				55.80	4	SS	1					
				3.35	5	SS	1					Bentonite Seal
5		Grey SILTY CLAY, occasional red brown layer, scattered trace of black organic matter below 6 metre depth and occasional very fine sand seam			6	SS	WH					
					7	SS	WH					Silica Sand Backfill
6					8	SS	WH					Well Screen B
7					9	SS	PM					
					10	SS	PM					Bentonite Seal
8		CONTINUED ON NEXT PAGE										

DATA INPUT: JOOBISA, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

RECORD OF BOREHOLE G8-92

SHEET 2 OF 2

LOCATION: See Plan

BORING DATE: April 6, 1992

DATUM: Geodetic

DIP:

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ( ) 50 100 150 200 / % LEL 20 40 60 80	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT Wp — W — Wl 20 40 60 80	INSTALLATIONS
8		CONTINUED FROM PREVIOUS PAGE											
9	Power Auger 244mm Diam. (Hollow Stem)	Grey SILTY CLAY, occasional red brown layer, scattered trace of black organic matter below 6 metre depth and occasional very fine sand seam			10	SS	50/00 PM						Silica Sand Backfill; Well Screen A
10					11	SS	50/00 PM						
11					12	SS	50/00 PM						
12					13	SS	50/00 PM						
13					14	SS	50/00 PM						
14		End of Hole		46.35 / 12.80									W.L in Screen A at Elev.48.34m Apr. 28, 1992 Screen B at Elev.52.62m May 1, 1992 Screen C at Elev.59.07m Apr 28, 1992
15													
16													

DATA INPUT: J.CCB8SA, DISC 6

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

LOCATION: See Plan

DIP:

RECORD OF BOREHOLE G9-92

BORING DATE: April 8&9, 1992

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

SHEET 1 OF 2

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	ELEV. / DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	INSTALLATIONS
		Ground Surface	55.97						
0	Power Auger, 550mm Diam. (Solid Stem)	Dark brown sandy TOPSOIL	0.00						Bentonite Seal
		Yellow brown SILTY fine SAND	0.09						
		Loose brown to grey fine SAND, occasional silty sand seam	55.51 / 0.46	1	50 DO	7			Native Backfill
1				2	50 DO	9			Well Screen C
2				3	50 DO	WR			
	Power Auger, 300mm Diam PVC Casing	Grey SILTY CLAY, occasional red brown layer, trace black organic matter below 9.6 metre depth	53.23 / 2.74	4	50 DO	1			Bentonite Seal
3				5	50 DO	PM			Silica Sand Backfill
4				6	50 DO	PM			Well Screen B
5				7	50 DO	PM			
6				8	50 DO	PM			Bentonite Seal
7				9	50 DO	PM			
8		CONTINUED ON NEXT PAGE							

GAS CONCENTRATION ⊕ ( ) 50 100 150 200

% LEL □ 20 40 60 80

HYDRAULIC CONDUCTIVITY, k, cm/s

WATER CONTENT, PERCENT Wp —O W— Wl 20 40 60 80

DATA INPUT: J.COBISA, DISC S.

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707
LOCATION: See Plan
DIP:

RECORD OF BOREHOLE G9-92

BORING DATE: April 8&9, 1992
SAMPLER HAMMER: 63.5kg, DROP: 760 mm

SHEET 2 OF 2
DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ⊕ ( ) 50 100 150 200 / % LEL ○ 20 40 60 80	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp—○W—Wl 20 40 60 80	INSTALLATIONS
		CONTINUED FROM PREVIOUS PAGE										
8	Power Auger 240mm Diam. (Hollow Stem)				9	50 DO	PM					Bentonite Seal
9					10	50 DO	PM					
10		Grey SILTY CLAY, occasional red brown layer, trace black organic matter below 9.8 metre depth										
11					11	50 DO	PM					Silica Sand Backfill
12					12	50 DO	PM					Well Screen A
				43.17 / 12.80								
13		End of Hole										W.L. in Screen A at Elev.45.17m Screen B at Elev.54.31m Screen C at Elev.55.55m Apr. 28, 1992
14												
15												
16												

DATA INPUT: J.GOBISA, DISC 9

DEPTH SCALE (ALONG HOLE)
1 to 40

Golder Associates

LOGGED: K.A.M.
CHECKED: KAM

PROJECT: 921-2707

LOCATION: See Plan

DIP: —

RECORD OF BOREHOLE: G10-92

BORING DATE: April 7, 1992

SHEET 1 OF 2

DATUM: Geodetic

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (%LEL)	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT (Wp, Wl)	INSTALLATIONS
0		Ground Surface		53.98 / 0.00									
		Brown SILTY fine SAND		53.77 / 0.21									
1		Loose brown to grey fine to medium SAND			1	SS	5		M				
				52.67 / 1.31	2	SS	PM						
2													
					3	SS	PM		MH				
3													
					4	SS	PM						
4	Power Auger 200mm Diam. (Hollow Stem)	Grey SILTY CLAY, occasional red brown layer, silty sand seam from 4.4 metres to 4.7 metres depth, traces of black organic matter below 8.5 metres depth			5	SS	PM						
					6	SS	PM						
5													
					7	SS	PM						
6													
					8	SS	PM						
7					9	SS	PM						
					10	SS	PM						
8		CONTINUED ON NEXT PAGE											

INSTALLATIONS: Bentonite Seal; Native Backfill; Well Screen C; Bentonite Seal; Silica Sand Backfill; Well Screen B; Bentonite Seal

DATA INPUT: JCOBBA, DSG 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

RECORD OF BOREHOLE G10-92

SHEET 2 OF 2

LOCATION: Site Plan

BORING DATE: April 7, 1992

DATUM: Geodetic

DIP:

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (%LEL)	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT (Wp, W, Wl)	INSTALLATIONS
8		CONTINUED FROM PREVIOUS PAGE											
9	Power Auger 200mm Diam. (Hollow Stem)	Grey SILTY CLAY, occasional red brown layer, silty sand seam from 4.4 metres to 4.7 metres depth, traces of black organic matter below 8.5 metres depth			10	50 DO	PM						
10					11	50 DO	PM						Silica Sand Backfill; Well Screen A
11					12	50 DO	PM						
				42.70 11.28									
		End of Hole											W.L. in Screen A at Elev.44.41m Screen B at Elev.51.81m Screen C at Elev.53.58m Apr. 28, 1992
12													
13													
14													
15													
16													

DATA INPUT: J.COBISA, DESC'D

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

LOCATION: See Plan

DIP:

RECORD OF BOREHOLE G11-92

BORING DATE: April 9, 1992

SHEET 1 OF 1

DATUM: Geodetic

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB TESTING
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		49.46 / 0.00					
		Dark brown organic SILT		49.85 / 0.81					
1		Loose brown to grey fine SAND			1	SS	50 DO	6	
				47.54 / 1.92	2	SS	50 DO	WR	
2		Grey SILTY CLAY, occasional red brown seam							
3					3	SS	50 DO	PM	
				45.80 / 3.66					
		End of Hole							
4									
5									
6									
7									
8									

GAS CONCENTRATION (ppm): 50 100 150 200

% LEL: 20 40 60 80

HYDRAULIC CONDUCTIVITY, k, cm/s

WATER CONTENT, PERCENT: Wp — W — Wl; 20 40 60 80

INSTALLATIONS

Bentonite Seal

Silica Sand Backfill

Well Screen

Native Backfill

W.L in Screen at Elev. 49.12m Apr. 29, 1992

DATA INPUT: J.COBIBA, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707 **RECORD OF BOREHOLE G12-92** SHEET 1 OF 1

LOCATION: See Plan BORING DATE: April 6, 1992 DATUM: Geodetic

Dia. SAMPLER HAMMER, 63.5Kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ⊕ ( ) 50 100 150 200 % LEL	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT Wp ○ W Wl 20 40 60 80	INSTALLATIONS
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		53.85									
		Dark brown silty TOPSOIL		0.00 / 53.55									
		Brown SILTY fine SAND		0.30 / 53.15									
1		Grey brown SILTY CLAY, occasional red brown layer (Weathered Crust)		0.70 / 52.39	1	SS	1					○	Bentonite Seal; Silica Sand Backfill; Well Screen
				1.46									
2					2	SS	WH					○	
3		Grey SILTY CLAY, occasional red brown layer and 100mm silty sand seam from 4.9 metres to 5.0 metres depth, trace organic matter			3	SS	WH						Bentonite Seal; Native Backfill
4					4	SS	PM						
5				48.67									
		End of Hole		5.18									W.L in Screen at Elev.53.20m Apr. 28, 1992
6													
7													
8													

DATA INPUT: JACOBSEN, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: A.M.

PROJECT: 921-2707

RECORD OF BOREHOLE G13-92

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: April 10, 1992

DATUM: Geodetic

DIP:

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (50 100 150 200) / % LEL (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp W Wl (20 40 60 80)	INSTALLATIONS
0	Power Auger 205mm Diam. (Hollow Stem)	Ground Surface		54.08								
		TOPSOIL		0.00								
		Brown SILTY fine SAND		53.81 / 0.27								
		Brown fine SAND		53.53 / 0.55								
1		Grey brown SILTY CLAY, occasional red brown layer (Weathered crust)										
				52.71 / 1.37	1	SS	50/0.0m	WH				
2		Grey SILTY CLAY, occasional red brown layer										
				51.64 / 2.44								
		End of Hole										
3												
4												
5												
6												
7												
8												

INSTALLATIONS: Bentonite Seal; Silica Sand Backfill; Well Screen

W.L. in Screen at Elev. 53.66m Apr. 28, 1992

DATA INPUT: J.COBISA, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 92-C707

LOCATION: Sod Plant

DIR

RECORD OF BOREHOLE G14-92

BORING DATE: April 10, 1992

SHEET 1 OF 1

DATUM: Geodetic

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (50 100 150 200) / % LEL (20 40 60 80)	HYDRAULIC CONDUCTIVITY, K cm/s	WATER CONTENT, PERCENT Wp — W — Wl (20 40 60 80)	INSTALLATIONS
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		56.71									
		TOPSOIL		0.00									
		Yellow brown SILTY fine SAND		56.28 / 0.43									
1		Loose brown to grey fine SAND, occasional silty sand layer			1	SS	6						Bentonite Seal; Well Screen
2				53.97 / 2.74									
3		Grey SILTY CLAY, occasional red brown layer			2	SS	WH						Native Backfill
		End of Hole		53.05 / 3.66									W.L in Screen at Elev.56.46m Apr. 28, 1992
4													
5													
6													
7													
8													

DATA INPUT: J.COBISA, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

RECORD OF BOREHOLE G15-92

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: April 10, 1992

DATUM: Geodetic

DIP:

SAMPLER HAMMER: 63.5Kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (50 100 150 200) % LEL (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT Wp — W — Wl (20 40 60 80)	INSTALLATIONS
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		56.58									
		TOPSOIL		56.43 / 0.00									
		Yellow brown SILTY fine SAND		56.12 / 0.15									
1		Loose brown to grey fine SAND, occasional silty sand seam		0.46	1	SS	7	50					Bentonite Seal; Well Screen
2				54.14 / 2.44									
		Grey SILTY CLAY, occasional red brown layer			2	SS	1	50					Native Backfill
				52.82 / 3.56									
4		End of Hole											W.L in Screen at Elev.56.39m Apr. 28, 1992
5													
6													
7													
8													

DATA INPUT: JCOSISA, DSC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2707

RECORD OF BOREHOLE G16-92

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: April 10, 1992

DATUM: Geodetic

DIP:

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ⊕ ( ) 50 100 150 200; % LEL □ 20 40 60 80	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT Wp ⊢ W ⊣ Wl 20 40 60 80	INSTALLATIONS
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		53.86 / 0.00								
1		Brown to grey fine SAND										Bentonite Seal; Well Screen; Native Backfill
				52.31 / 1.55								
2		Grey SILTY CLAY, occasional red brown layer			1	SS	WH					
				51.73 / 2.13								
		End of Hole										W.L in Screen at Elev.53.67m Apr. 29, 1992
3												
4												
5												
6												
7												
8												

DATA INPUT: J.COBISA, DISC 9

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED: KAM

PROJECT: 921-2729 | RECORD OF BOREHOLE G17-92 | SHEET 1 OF 1

LOCATION: See Plan | BORING DATE: Oct. 6, 1992 | DATUM: Geodetic

SAMPLER HAMMER, 63.5kg; DROP, 760mm | PENETRATION TEST HAMMER, 63.5kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (nat V - +, rem V - ⊕, Q - ●, U - ○)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		53.82							
		Dark brown sandy TOPSOIL		0.00 / 0.09							
		Brown SILTY fine SAND		53.25 / 0.67							
1		Grey brown SILTY CLAY, occasional red brown layer (Weathered Crust)		52.48 / 1.46							
2		Grey SILTY CLAY, occasional red brown layer			1	SS	WH				
		End of Hole		51.48 / 2.44							
3											
4											
5											
6											
7											
8											

PIEZOMETER: Bentonite Seal; Silica Sand Backfill; W.L. in Screen at elev. 52.97m Oct. 12, 1992

DATA INPUT: J.COBISA, DISC 11

DEPTH SCALE: 1 to 40

Golder Associates

LOGGED: K.A.M.

CHECKED:

RECORD OF BOREHOLE G18-92

PROJECT: 921-2729
LOCATION: See Plan
SAMPLER HAMMER: 63.5kg; DROP: 760mm

BORING DATE: Oct 5, 1992
PENETRATION TEST HAMMER: 63.5kg; DROP: 760mm

SHEET 1 OF 1
DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (natV- + Q-●, remV- ⊕ U-○)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		55.40 / 0.00							
		Dark brown sandy TOPSOIL		55.10 / 0.30							Bentonite Seal
1		Brown to grey fine SAND		53.94 / 1.46							Silica Sand Backfill
2		Grey SILTY CLAY, occasional red brown layer		53.27 / 2.13	1	DO	WH				W.L. in Screen at elev.54.26m Oct. 12, 1992
		End of Hole									
3											
4											
5											
6											
7											
8											

DATA INPUT: JCOBI6A, DI8C11

DEPTH SCALE
1 to 40

Golder Associates

LOGGED: K.A.M.
CHECKED:

RECORD OF BOREHOLE G19-92

PROJECT: 921-2729
LOCATION: See Plan
SAMPLER HAMMER, 63.5kg; DROP, 760mm

BORING DATE: Oct. 5, 1992

SHEET 1 OF 1
DATUM: Geodetic
PENETRATION TEST HAMMER, 63.5kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m / SHEAR STRENGTH Cu, kPa (nat.V - + Q - ● rem.V - ⊕ U - O)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT (Wp ⊢—○W—⊣ Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		Ground Surface		59.19 / 0.00							
	Power Auger 200mm Diam. (Hollow Stem)	Yellow brown SILTY fine SAND		58.98 / 0.21							Bentonite Seal
1											
2		Very loose to loose brown fine SAND			1	SO DO	5				Native Backfill
					2	SO DO	2				
3					3	SO DO	4				
				55.47 / 3.72							
4		Grey SILTY CLAY, occasional red brown layer			4	SO DO	WH				
				54.62 / 4.57							
		End of Hole									W.L. in Screen at elev.56.17m Oct. 12, 1992
5											
6											
7											
8											

DATA INPUT: J.COBISA, DISC 11

DEPTH SCALE
1 to 40

Golder Associates

LOGGED: K.A.M.
CHECKED:

PROJECT: 921-2729
LOCATION: See Plan
SAMPLER HAMMER: 63.5kg; DROP: 760mm

RECORD OF BOREHOLE G20-92

BORING DATE: Oct. 5, 1992

SHEET 1 OF 1
DATUM: Geodetic
PENETRATION TEST HAMMER: 63.5kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m / SHEAR STRENGTH Cu, kPa (nat.V - +, rem.V - ⊕, Q - ●, U - O)	HYDRAULIC CONDUCTIVITY, K, cm/s / WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Power Auger, 200mm Diam. (Hollow Stem)	Ground Surface		59.67							
		Dark brown sandy TOPSOIL		0.03							
		Brown SILTY fine SAND		59.33 / 0.34							Bentonite Seal
1											
2		Very loose to compact brown fine SAND			1	50 DO	15				Native Backfill
					2	50 DO	4				
3					3	50 DO	3				
4				55.40 / 4.27							
		Grey SILTY CLAY, occasional red brown layer			4	50 DO	WR				
5				54.49 / 5.18							
		End of Hole									W.L. in Screen at elev. 58.29m Oct. 12, 1992
6											
7											
8											

DATA INPUT: J.COSIBA, DISC 11

DEPTH SCALE
1 to 40

Golder Associates

LOGGED: K.A.M.
CHECKED: KAM

PROJECT: 941-2729

RECORD OF BOREHOLE G21-94

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: July 20, 1994

DATUM: Geodetic

DIP:

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (LEL %)	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT (Wp — W — Wl)	INSTALLATIONS
0	Power Auger 200mm Diam. (Hollow Stem)	Ground Surface		55.16									
		Dark brown sandy TOPSOIL		0.00 / 54.88									
				0.30									
1		Loose brown to grey fine SAND			1	SS	6						Bentonite Seal; Granular Filler; 50mm PVC #10 Slot Screen
				53.50									
				1.66	2	SS	1						
2		Grey SILTY CLAY, occasional red brown seam											
				52.44	3	SS	1						
		End of Hole		2.74									W.L. in Screen at Elev. 54.08m Sept. 6, 1994
3													
4													
5													
6													
7													
8													
9													
10													

DATA INPUT: Dick 18, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 941-2729

LOCATION: Sub Plan

DIP:

RECORD OF BOREHOLE G22-94

BORING DATE: July 2d, 1994

SHEET 1 OF 1

DATUM: Geodetic

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ⊕ ( ) / LEL % □	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp ○ W ⊣ Wl	INSTALLATIONS
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		60.96								
		Sandy TOPSOIL		0.03								
		Brown SANDY SILT		59.53								
				0.43								
		Brown SILTY fine SAND		59.96								
1				1.00	1	SS	9	DO				
2		Loose to compact brown to grey stratified fine SAND			2	SS	11	DO				
3					3	SS	4	DO				
4					4	SS	6	DO				
5					5	SS	11	DO				
				55.66								
				5.30	6	SS	1	DO				
6		Grey and red brown SILTY CLAY			7	SS	2	DO				
				54.41								
		End of Hole		6.55								
7												
8												
9												
10												

INSTALLATIONS:
- Bentonite Seal
- Native Backfill
- 50mm PVC #10 Slot Screen
- W.L in Screen at Elev.59.51m Sept. 8, 1994

DATA INPUT: Clerk19, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 911-2729

LOCATION: See Plan

DB:

RECORD OF BOREHOLE: G23-94

BORING DATE: July 25, 1994

SHEET 1 OF 1

DATUM: Geodetic

SAMPLER HAMMER: 63.5Kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (LEL %)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT (Wp, W, Wl)	INSTALLATIONS
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		61.02								
		Dark brown silty TOPSOIL		0.00 / 60.47								
		Brown SANDY SILT		0.55 / 60.26								
1		Very loose to compact brown stratified fine SAND		0.76	1	SS	10					Bentonite Seal
2					2	SS	11					Native Backfill
3					3	SS	3					
4					4	SS	8					
5					5	SS	6					50mm PVC #10 Slot Screen
6				55.14	6	SS	2					
		Grey SILTY CLAY, occasional red brown seam		5.88								
7					7	SS	PM					
		End of Hole		54.31 / 6.71								
8												
9												
10												

Screen sanded in Sept. 6, 1994

DATA INPUT: Disk 19, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 941-2729

LOCATION: Sea Plan

DIP:

RECORD OF BOREHOLE G24-94

BORING DATE: July 27, 1994

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION ( ) ⊕ / LEL % □	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp ⊢—O W —⊣ Wl	INSTALLATIONS
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		58.89								
		Dark brown sandy silt, some gravel (FILL)		0.00 / 58.68								Bentonite Seal
		Loose brown stratified fine SAND		0.21	1	50 DO	9					Native Backfill
2					2	50 DO	5					50mm PVC #10 Slot Screen
					3	50 DO	4					
3		Grey SILTY CLAY, occasional red brown layer		55.69 / 3.20	4	50 DO	2					
4					5	50 DO	2					
		End of Hole		54.62 / 4.27								W.L.in Screen at Elev.57.84m Sept. 6, 1994
5												
6												
7												
8												
9												
10												

DATA INPUT: Disk 19, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 941-2729 — RECORD OF BOREHOLE: G25-94 — SHEET 1 OF 1

LOCATION: See Plan — BORING DATE: July 27, 1994 — DATUM: Geodetic

DIP: — SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (LEL %)	HYDRAULIC CONDUCTIVITY, k, cm/s (WATER CONTENT, PERCENT Wp — W — Wl)	INSTALLATIONS
0	Power Auger 200mm Diam (Retained Stem)	Ground Surface		61.34								
		Dark brown silty TOPSOIL		0.00 / 61.16								Bentonite Seal
		Brown SANDY SILT		0.24 / 60.61								
1		Brown SILTY fine SAND		0.73 / 59.66								Native
2		Very loose to compact brown stratified fine SAND, occasional silty fine sand layer with depth		1.68	1	SS	50/0.0	10				
					2	SS	50/0.0	10				
3												
4					3	SS	50/0.0	2				50mm PVC #10 Slot Screen
					4	SS	50/0.0	3				
5				56.07								
		Grey SILTY CLAY, occasional red brown layer		5.27	5	SS	50/0.0	1				
6					6	SS	50/0.0	2				
				54.79								
		End of Hole		6.55								W.L in Screen at Elev.57.67m Sept. 6, 1994
7												
8												
9												
10												

DATA INPUT: Dlek 19, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 941-2729

RECORD OF BOREHOLE G26-94

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: July 27, 1994

DATUM: Geodetic

DIP:

SAMPLER HAMMER, 63.5kg; DROP, 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	GAS CONCENTRATION (LEL %)	HYDRAULIC CONDUCTIVITY, K, cm/s	WATER CONTENT, PERCENT (Wp, W, Wl)	INSTALLATIONS
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		60.83									
		Dark brown silty TOPSOIL		0.00 / 0.09									
		Brown SILTY fine SAND		60.10 / 0.73									
1		Loose to compact stratified fine SAND, occasional thin silty sand layer with depth			1	SS	14	50/00					Bentonite Seal
2					2	SS	15	50/00					Native Backfill
3					3	SS	9	50/00					
4					4	SS	3	50/00					50mm PVC #10 Slot Screen
				56.26 / 4.57									
5		Grey SILTY CLAY, occasional red brown layer			5	SS	1	50/00					
6					6	SS	1	50/00					
		End of Hole		55.04 / 6.79									W.L in Screen at Elev.57.65m Sept. 6, 1994
7													
8													
9													
10													

DATA INPUT: Clak 19, S.Leighton

DEPTH SCALE (ALONG HOLE)

1 to 50

Golder Associates

LOGGED: D.J.S

CHECKED: KAM

PROJECT: 971-2839
LOCATION: See Plan
DIP:

RECORD OF BOREHOLE G27-97

BORING DATE: May 28, 1997
SAMPLER HAMMER: 63.5 kg; DROP: 760 mm

SHEET 1 OF 1
DATUM: See Plan

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.6m	RECOVERY %	LAB. TESTING	COMBUSTIBLE VAPOUR ( ) / Micro-Tip ppm	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp—W—Wl	INSTALLATIONS A B C
		Ground Surface		53.97								
0	Power Auger, 200mm Diam (Hollow Stem)	Brown SILTY fine SAND		0.00 / 53.76								Bentonite Seal
		Loose brown to grey fine to medium SAND		0.21 / 52.66								Concrete; Granular Filter; 38mm PVC #10 Slot Screen
1		Grey SILTY CLAY		1.31 / 52.45								
		End of Hole		1.52								
2												
3												
4												
5												
6												
7												
8												

DATA INPUT: O:9727-839.dt/B.L.

DEPTH SCALE (ALONG HOLE)
1 to 40

Golder Associates

LOGGED: D.J.S
CHECKED: BCS

PROJECT: 971-2639

LOCATION: See Plan

DIP:

RECORD OF BOREHOLE G28-97

BORING DATE: May 28, 1997

SHEET 1 OF 1

DATUM: See Plan

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	COMBUSTIBLE VAPOUR (Micro-Tip ppm)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	INSTALLATIONS A / B / C
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		63.70 / 0.00								
1		Brown to grey fine SAND										Bentonite Seal; Concrete; Granular Filter; 38mm PVC #10 Slot Screen
				62.18 / 1.52								
2		End of Hole										
3												
4												
5												
6												
7												
8												

DATA INPUT: ©9726-639.dri/SJL

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: D.J.S

CHECKED: BCG

PROJECT: 971-2939

RECORD OF BOREHOLE G29-97

SHEET 1 OF 1

LOCATION: See Plan

BORING DATE: May 28, 1997

DATUM: See Plan

DIP:

SAMPLER HAMMER: 63.5kg; DROP: 760 mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	RECOVERY %	LAB. TESTING	COMBUSTIBLE VAPOUR ( ) Micro-Tip ppm	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT Wp W Wl	INSTALLATIONS A B C
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		60.92								
		Dark brown silty TOPSOIL		0.00								Bentonite Seal
		Brown SANDY SILT		60.37 0.55								
				60.16 0.76								
1		Very loose to compact brown stratified fine SAND										Native & Granular Filler
2												
3												
4												
5												38mm PVC #10 Slot Screen
6		Grey SILTY CLAY, occasional red brown seam		55.04 5.88								
		End of Hole		54.82 6.10								
7												
8												

DATA INPUT: Q:\723-939.dri/S.L

DEPTH SCALE (ALONG HOLE)

1 to 40

Golder Associates

LOGGED: D.J.S

CHECKED: BCS

RECORD OF BOREHOLE G30-97

PROJECT: 961-2779 | SHEET 1 OF 1

LOCATION: See Plan | BORING DATE: Oct. 1, 1997 | DATUM: Geodetic

SAMPLER HAMMER: 63.6kg; DROP: 760mm | PENETRATION TEST HAMMER: 63.6kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (nat.V. + Q-●; rem.V. ⊕ U-O; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp ⊢—O W—⊣ Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Power Auger 200mm Diam (Hollow Stem)	Ground Surface		53.39 / 0.00							
		Brown fine SAND		52.11 / 1.29							Bentonite Seal
1		Firm red brown and grey SILTY CLAY, occasional sandy silt seam		49.58 / 3.81							Native Backfill
4		Firm to stiff grey SILTY CLAY, trace black organic matter		41.81 / 11.58							Bentonite Seal
11		Stiff grey SILTY CLAY, trace black organic matter		39.98 / 13.41							Granular Filter; 50mm PVC #10 Slot Screen; Bentonite Seal
13		Compact dark grey sandy silt, some gravel and clay, occasional cobble and fine sand layer (GLACIAL TILL)		38.15 / 15.24	1	50 DO	11				Native Backfill
15		End of Hole									

DATA INPUT: G:\97G30779.dt/B.L

DEPTH SCALE 1 to 100

Golder Associates

LOGGED: D.J.S

CHECKED:

PROJECT: 981-2726

RECORD OF BOREHOLE G31-98

SHEET 1 OF 2

LOCATION: REFER TO PLAN

BORING DATE: APRIL 7 & 8/98

DATUM: Geodetic

SAMPLER HAMMER, 63.6kg; DROP, 760mm

PENETRATION TEST HAMMER, 63.6kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m	HYDRAULIC CONDUCTIVITY, k, cm/s	SHEAR STRENGTH Cu, kPa (nat.V- +, rem.V- ⊕, Q-●, U-○)	WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	CME 55 POWER AUGER 108mm I.D. HOLLOW STEM AUGERS	GROUND SURFACE		53.30									
		Dark brown TOPSOIL.		0.03									
		Red-brown, fine SAND, some silt.		52.87									
				0.43									
1		Very loose to loose, brown to grey stratified SILTY fine SAND.			1	SS	7						
2					2	SS	1						
3					3	SS	3						
4				49.79	4	SS	2						
				3.51									
5		Very loose to loose, brown to grey fine SAND, trace silt.			5	SS	7						
					6	SS	3						GROUT
6					7	SS	5						
				49.90	8	SS	4						
				6.40									
7		Very stiff to stiff, grey, occ. red-brown layer SILTY CLAY, trace black organic matter.											
8					4	ST	PH					Cl/sg 2.64	
9													
					10	ST	PH					MH	
10		CONTINUED ON NEXT PAGE											

DATA INPUT: #8 JUNE 2/98

DEPTH SCALE

1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 931-2726 — RECORD OF BOREHOLE G31-98 — SHEET 2 OF 3

LOCATION: REFER TO PLAN — BORING DATE: APRIL 7 & 8/98 — DATUM: Geodetic

SAMPLER HAMMER: 63.5kg; DROP: 760mm — PENETRATION TEST HAMMER: 63.6kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (nat.V- + Q-●; rem.V- ⊕ U-○)	HYDRAULIC CONDUCTIVITY, K, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
10	CME 55 POWER AUGER 108mm I.D. HOLLOW STEM AUGERS	CONTINUED FROM PREVIOUS PAGE									
11					11	SS DO	1				
12					12	TP	PH			Cl'eq 2.67	GROUT
13				40.04 / 13.26							
		Very stiff, grey layered SILTY CLAY and CLAYEY SILT.			13	SS DO	2				
14				39.13 / 14.17							BENTONITE SEAL
		Loose, grey SANDY SILT.		38.52 / 14.78							
15		Dense, dark grey sandy silt, some gravel, trace clay, occ. cobble & sand seam. (GLACIAL TILL)			14	SS DO	33			MH	NATIVE & GRANULAR FILTER; 38mm PVC #10 SLOT SCREEN SCREEN B
16											
17				36.17 / 17.13	15	SS DO	51				
	ROTARY DRILL HQ CORE	Fresh to fairly weathered, dark grey SHALE, occ. fracture with some clayey material along fracture surfaces.			16	NQ RC	DD	T.C.R. = 70% S.C.R. = 0% R.Q.D. = 0%			BENTONITE SEAL
					17	NQ RC	DD	T.C.R. = 94% S.C.R. = 23% R.Q.D. = 0%			
18				34.90 / 18.40							
19		Fresh dark grey SHALE, occ. fracture.			18	NQ RC	DD	T.C.R. = 88% S.C.R. = 80% R.Q.D. = 55%			GRANULAR FILTER; 32mm PVC #10 SLOT SCREEN SCREEN A
20		CONTINUED ON NEXT PAGE			19	NQ RC	DD				

DATA INPUT: PB JUNE 2/98

DEPTH SCALE 1 to 50 — Golder Associates — LOGGED: J.S. — CHECKED: KM

PROJECT: 981-2726

RECORD OF BOREHOLE G31-98

SHEET 3 OF 3

LOCATION: REFER TO PLAN

BORING DATE: APRIL 7/8/98

DATUM: Geodetic

SAMPLER HAMMER, 63.6kg; DROP, 760mm

PENETRATION TEST HAMMER, 63.6kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m	HYDRAULIC CONDUCTIVITY, K, cm/s	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
20	ROTARY DRILL HQ CORE	CONTINUED FROM PREVIOUS PAGE						SHEAR STRENGTH Cu, kPa; nat.V- +; rem.V- ⊕; Q-●; U-○ (20 40 60 80)	WATER CONTENT, PERCENT Wp, W, Wl (20 40 60 80)		
					19	RC	00	T.C.R. = 100% S.C.R. = 57% R.Q.D. = 35%			
				32.76							
		END OF BOREHOLE		20.54							
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

DATA INPUT: PS JUNE 2/98

DEPTH SCALE
1 to 50

Golder Associates

LOGGED: J.S.
CHECKED: KM

PROJECT: 981-2726

RECORD OF BOREHOLE G32-98

SHEET 1 OF 3

LOCATION: REFER TO PLAN

BORING DATE: APRIL 13/98

DATUM: Geodetic

SAMPLER HAMMER, 63.6kg; DROP, 760mm

PENETRATION TEST HAMMER, 63.6kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m / SHEAR STRENGTH Cu, kPa (nat.V - + Q - ● rem.V - ⊕ U - O)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT (Wp ⊢—O W —⊣ Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	CME 55 POWER AUGER 108mm I.D. HOLLOW STEM AUGERS	GROUND SURFACE		60.87							
		Dark brown TOPSOIL		0.00							
		Loose, brown SILTY fine SAND, occ. fine sand seam.		0.15							
1					1	50 DO	7				
				59.04 / 1.63	2	50 DO	6				
2		Loose to very loose, brown, fine SAND, trace silt, stratified, occ. thin silty sand layer.			3	50 DO	6				
3					4	50 DO	6				
4					5	50 DO	6				
5					6	50 DO	6				GROUT
					7	50 DO	3				
6				54.62 / 6.25							
		Very stiff, grey SILTY CLAY.			8	50 DO	1		O		
7				53.92 / 6.95							
		Loose, grey SILTY fine SAND.			9	50 DO	PH			C	
8					10	50 DO	7				
9				51.85 / 9.02							
		Firm to stiff, grey SILTY CLAY, occ. red-brown layer, stratified, trace black organic matter.			11	50 DO	WH		O		
10		CONTINUED ON NEXT PAGE									

DATA INPUT: PB JUNE 2/98

DEPTH SCALE

1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 981-2726
LOCATION: REFER TO PLAN
SAMPLER HAMMER: 63.6kg; DROP: 760mm

RECORD OF BOREHOLE G32-98

BORING DATE: APRIL 13/98

SHEET 2 OF 3
DATUM: Geodetic
PENETRATION TEST HAMMER: 63.6kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m / SHEAR STRENGTH Cu, kPa (nat.V - + Q - ● rem.V - ⊕ U - O)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT (Wp ⊢—O W—⊣ Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		CONTINUED FROM PREVIOUS PAGE									
10	CME 85 POWER AUGER, 108mm I.D. HOLLOW STEM AUGERS	Firm to stiff, grey SILTY CLAY, occ. red-brown layer, stratified, trace black organic matter.									
11					12	73 TP	PH			C	
12					13	73 TP	PH			C	
13											
14					14	50 DO	WH				
15					15	73 TP	PH				GROUT
16											
17					16	50 DO	WH				
18					17	73 TP	PH				
19		Stiff, grey layered SILTY CLAY and CLAYEY SILT.		41.97 / 18.90							
20					18	50 DO	2				
		CONTINUED ON NEXT PAGE									

DATA INPUT: PS JUNE 2/98

DEPTH SCALE
1 to 50

Golder Associates

LOGGED: J.S.
CHECKED: KM

PROJECT: 981-2726

RECORD OF BOREHOLE G32-98

SHEET 3 OF 3

LOCATION: REFER TO PLAN

BORING DATE: APRIL 13/98

DATUM: Geodetic

SAMPLER HAMMER: 63.6kg; DROP: 760mm

PENETRATION TEST HAMMER: 63.6kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	ELEV. / DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m / SHEAR STRENGTH Cu, kPa (nat.V - + Q - ● rem.V - ⊕ U - O)	HYDRAULIC CONDUCTIVITY, k, cm/s / WATER CONTENT, PERCENT (Wp W Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		CONTINUED FROM PREVIOUS PAGE								
20	CME 55 POWER AUGER; 108mm I.D. HOLLOW STEM AUGERS			18	50 DO	2				
		Compact, grey SANDY SILT, scattered, trace gravel.	40.30 / 20.57							
21			39.53 / 21.34	19	50 DO	14				
22	ROTARY DRILL; NW CASING	Dense, dark grey sandy silt, some gravel, trace clay, occ. cobble & boulder. (GLACIAL TILL)		20	NQ RC		T.C.R. = 26%			BENTONITE SEAL
23				21	NQ RC	DD	T.C.R. = 32%			
				22	NQ RC	DD	T.C.R. = 44%			NATIVE BACKFILL
24				23	NQ RC	DD	T.C.R. = 18%			
25				24	NQ RC	DD	T.C.R. = 52%			25mm PVC #10 SLOT SCREEN; SCREEN B
		Fresh to fairly weathered dark grey SHALE; fractured.	35.48 / 25.39	25	NQ RC	DD	T.C.R. = 63%; S.C.R. = 0%; R.Q.D. = 0%			
				26	NQ RC	DD	T.C.R. = 83%; S.C.R. = 0%; R.Q.D. = 0%			BENTONITE SEAL
26				27	NQ RC	DD	T.C.R. = 72%; S.C.R. = 0%; R.Q.D. = 0%			
				28	NQ RC	DD	T.C.R. = 100%; S.C.R. = 14%; R.Q.D. = 0%			
27	NQ CORE	Fresh dark grey SHALE; occ. fracture.	33.99 / 26.88	29	NQ RC	DD	T.C.R. = 86%; S.C.R. = 45%; R.Q.D. = 11%			GRANULAR FILTER
				30	NQ RC	DD	T.C.R. = 96%; S.C.R. = 69%; R.Q.D. = 54%			25mm PVC #10 SLOT SCREEN; SCREEN A
28		END OF BOREHOLE	32.71 / 28.16							
29										
30										

DATA INPUT: PS JUNE 2/98

DEPTH SCALE 1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 981-2726

RECORD OF BOREHOLE G33-98

SHEET 1 OF 3

LOCATION: REFER TO PLAN

BORING DATE: APRIL 16-17/98

DATUM: Geodetic

SAMPLER HAMMER, 63.6kg; DROP, 760mm

PENETRATION TEST HAMMER, 63.6kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m	HYDRAULIC CONDUCTIVITY, k, cm/s	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	CME 55 POWER AUGER 108mm I.D. HOLLOW STEM AUGERS	GROUND SURFACE		53.68				SHEAR STRENGTH Cu, kPa; nat.V- + Q-●; rem.V- ⊕ U-○	WATER CONTENT, PERCENT Wp W Wl		
		Dark brown sandy TOPSOIL.		0.00 / 53.34 / 0.24							
1		Brown and dark brown, stratified fine SAND, some silt and silty sand seams.									
2				51.78 / 1.83	1	SS DO	8				
		Loose, brown, stratified fine SAND, trace silt.			2	SS DO	7				
3					3	SS DO	7				
4				49.92 / 3.66							
					4	ST TP	PH			CIU	GROUT
5		Stiff, grey, occ. red-brown layer SILTY CLAY, trace black organic matter.									
6					5	ST TP	PH			C/sg 2.65 CIU	
7											
8					6	SS DO	PH				
9					7	ST TP	PH			CIU	
10		CONTINUED ON NEXT PAGE									

DATA INPUT: PB JUNE 2/98

DEPTH SCALE

1 to 50

LOGGED: J.S.

CHECKED: KM

Golder Associates

PROJECT: 991-2726 | RECORD OF BOREHOLE G33-98 | SHEET 2 OF 3

LOCATION: REFER TO PLAN | BORING DATE: APRIL 16-17/98 | DATUM: Geodetic

SAMPLER HAMMER, 63.6kg; DROP, 760mm | PENETRATION TEST HAMMER, 63.6kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m	SHEAR STRENGTH Cu, kPa (nat.V- +, rem.V- ⊕, Q-●, U-○)	HYDRAULIC CONDUCTIVITY, k, cm/s	WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
10	CME 53 POWER AUGER, 165mm I.D. HOLLOW STEM AUGERS	CONTINUED FROM PREVIOUS PAGE											
11					8	50 DO	PM						
12		Stiff, grey, occ. red-brown layer SILTY CLAY, trace black organic matter.			9	73 TP	PH					C/cg 2.69 CIU	GROUT
13													
14					10	50 DO	PM						
15		Compact, grey SANDY SILT, trace gravel.		38.10 14.48									
16				39.04 15.54	11	50 DO	6						BENTONITE SEAL
17		Loose to compact, dark grey sandy silt, some gravel, clay and cobbles. (GLACIAL TILL)			12	50 DO	28					MH	GRANULAR FILTER
18	ROTARY DRILL, NW CASING, NQ CORE				13	NQ RC	DD	T.C.R. = 53%					38mm PVC #10 SLOT SCREEN
					14	NQ RC	DD	T.C.R. = 66%					SCREEN B
					15	NQ RC	DD	T.C.R. = 60%					
19		Fresh to fairly weathered dark grey SHALE; fractured.		34.59 18.09	16	NQ RC	DD	T.C.R. = 88% R.Q.D. = 0% S.C.R. = 0%					
				33.99 19.60	17	NQ RC	DD	T.C.R. = 96% S.C.R. = 42% R.Q.D. = 18%					BENTONITE SEAL
					18	NQ RC	DD						
20		CONTINUED ON NEXT PAGE											

DATA INPUT: PS JUNE 2/98

DEPTH SCALE 1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 961-2726 | **RECORD OF BOREHOLE G33-98** | SHEET 3 OF 3

LOCATION: REFER TO PLAN | BORING DATE: APRIL 16-17/98 | DATUM: Geodetic

SAMPLER HAMMER, 63.5kg; DROP, 760mm | PENETRATION TEST HAMMER, 63.5kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (nat.V- + Q-●, rem.V- ⊕ U-○)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
20	ROTARY DRILL NQ CORE	CONTINUED FROM PREVIOUS PAGE									
21		Fresh dark grey SHALE; occ. fracture.			18	NQ RC	DD	T.C.R. = 98% S.C.R. = 90% R.Q.D. = 70%			GRANULAR FILTER 32m/m PVC #10 SLOT SCREEN SCREEN A
22				31.51	19	NQ RC	DD	T.C.R. = 100% S.C.R. = 80% R.Q.D. = 60%			
		END OF BOREHOLE		22.07							
23											
24											
25											
26											
27											
28											
29											
30											

DATA INPUT: PB JUNE 2/98

DEPTH SCALE
1 to 50

Golder Associates

LOGGED: J.S.
CHECKED: KM

PROJECT: 981-2726

RECORD OF BOREHOLE G34-98

SHEET 1 OF 1

LOCATION: REFER TO PLAN

BORING DATE: APRIL 20/98

DATUM: Geodetic

SAMPLER HAMMER: 63.6kg; DROP: 760mm

PENETRATION TEST HAMMER: 63.6kg; DROP: 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m; SHEAR STRENGTH Cu, kPa (nat.V - +, rem.V - ⊕, Q - ●, U - O; 20, 40, 60, 80)	HYDRAULIC CONDUCTIVITY, k, cm/s; WATER CONTENT, PERCENT (Wp, W, Wl)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		53.06 / 0.00							
0	CME 55 POWER AUGER, 108mm I.D. HOLLOW STEM AUGERS	Brown fine SAND									
1											
2				51.11 / 1.95							
		Grey and red-brown SILTY CLAY.			1	50 DO	2				
3					2	50 DO	PM				
		END OF BOREHOLE		49.55 / 3.51							
4											
5											
6											
7											
8											
9											
10											

DATA INPUT: PB JUNE 2/98

DEPTH SCALE

1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 981-2726 | RECORD OF BOREHOLE G35-98 | SHEET 1 OF 1

LOCATION: REFER TO PLAN | BORING DATE: APRIL 21/99 | DATUM: Geodetic

SAMPLER HAMMER, 63.6Kg; DROP, 760mm | PENETRATION TEST HAMMER, 63.6Kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m	HYDRAULIC CONDUCTIVITY, k, cm/s	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		58.91				SHEAR STRENGTH Cu, kPa; nat.V: + Q: ●; rem.V: ⊕ U: ○; 20 40 60 80	WATER CONTENT, PERCENT Wp — W — Wl		
0		Brown sandy TOPSOIL		0.00							
				0.15							
1											
2	CME 55 POWER AUGER 184mm I.D. HOLLOW STEM AUGERS	Brown fine SAND									
3											
4				52.84							
		Grey and red-brown SILTY CLAY.		4.27							
				52.03	1	SS	4				
5		END OF BOREHOLE		4.88							
6											
7											
8											
9											
10											

DATA INPUT: PB JUNE/98

DEPTH SCALE 1 to 50

Golder Associates

LOGGED: J.S.

CHECKED: KM

PROJECT: 011-2839 5000

RECORD OF BOREHOLE: G36-01

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 4, 2001

DATUM: Geodetic

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q- ●, U- ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-4} 10^{-5} 10^{-6} 10^{-7})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	POWER AUGER 200 mm Diam. (Hollow Stem)	GROUND SURFACE		56.06									
		Yellow brown SILTY SAND		0.00									
		Very loose to loose brown fine SAND		0.15	1	SS	6						Bentonite Seal
1													Native Backfill
					2	SS	2						Sand and caved material
2													
					3	SS	3						50 mm PVC #10 slot screen
3				52.34									
		Grey SILTY CLAY occasional red-brown layer		3.72									
4					4	SS	WH						Sand Backfill
				51.49									
		END OF BOREHOLE		4.57									
5													
6													
7													
8													
9													
10													

BOREHOLE 011-2839.GPJ GLDR_CAN.GDT 1/8/02 Ken Taylor

DEPTH SCALE
1:50

Golder Associates

LOGGED: D.J.S.
CHECKED: ____

PROJECT: 011-2839 5000

RECORD OF BOREHOLE: G37-01

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 4, 2001

DATUM: Geodetic

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-4} 10^{-5} 10^{-6} 10^{-7})	WATER CONTENT PERCENT Wp — W — Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	POWER AUGER 200 mm Diam. (hollow stem)	GROUND SURFACE		60.44									
		Brown SILTY SAND and SANDY SILT		0.00 / 60.07									
		Brown SILTY fine SAND		0.37 / 59.65									Bentonite Seal
1		Very loose to loose brown fine SAND		0.79	1	SS	6						
2					2	SS	5						Native Backfill
3					3	SS	1						
4					4	SS	5						Sand and caved material
		Grey SILTY CLAY occasional red-brown layer		55.66 / 4.58	5	SS	2						50 mm PVC #10 slot screen
5													
					6	SS	1						Sand Backfill
6		END OF BOREHOLE		54.34 / 6.10									
7													
8													
9													
10													

DEPTH SCALE 1:50

Golder Associates

LOGGED: D.J.S.

CHECKED: .....

BOREHOLE 011-2839.GPJ GLDR_CAN.GDT 16/3/02 Ken Taylor

PROJECT: 03-1120-726-5000

RECORD OF BOREHOLE: G38-03

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: July 28, 2003

DATUM: Geodetic

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Power Auger 200mm Diam. (Hollow Stem)	GROUND SURFACE		59.78									
		Loose dark brown sandy silt, some gravel, trace cobbles and roots (FILL)		59.68									
		Loose grey stratified fine SAND		59.15									
1					1	SS	6						Bentonite Seal
					2	SS	4						Silica Sand
2													50mm Diam. PVC #10 Slot Screen
					3	SS	3						
		Very stiff SILTY CLAY, occasional sand seam		55.88 2.80									
3					4	SS	2						Bentonite Seal
		Very stiff pink grey SILTY CLAY		55.43 3.35									
					5	SS	2						Native Backfill
4				54.51									
		End of Borehole		4.27									
5													Water level in screen at elev. 57.85m Aug. 25, 2003
6													
7													
8													
9													
10													

BOREHOLE 03-1120-726-5000.GPJ GLNR_CAN.GDT 17/3/04

DEPTH SCALE
1 : 50

Golder Associates

LOGGED: S.I.
CHECKED: G.D.C.

PROJECT: 07-1122-0124-5000

RECORD OF BOREHOLE: G39-07

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 23, 2007

DATUM: Geodetic

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, K, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (20 40 60 80)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		49.13							
0		Dark brown organic TOPSOIL		0.00							Flush mount casing set in bentonite
				48.79							
	Power Auger 200mm Diam. (Hollow Stem)	Loose brown fine SAND		0.34							Native Backfill and Silica Sand mixture
1					1	50 DO	5				50mm Diam. PVC #10 Slot Screen
				47.55							
		Grey SILTY CLAY		1.58							
					2	50 DO	1				Native Backfill
2				47.00							
		End of Borehole		2.13							
3											
4											
5											

DEPTH SCALE

1 : 25

Golder Associates

LOGGED: D.J.S.

CHECKED: SM

MIS-BHS 001 07-1122-0124-5000.GPJ GLDR_CAN.GDT 6/5/07 JM

PROJECT: 07-1122-0124-5000

RECORD OF BOREHOLE: G40-07

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 23, 2007

DATUM: Geodetic

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q- ●; rem V. ⊕ U- ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp ⊢ W ⊣ Wl) (20 40 60 80)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		49.60									
0	Power Auger 200mm Diam. (Hollow Stem)	Dark brown organic TOPSOIL		0.00 / 49.33									Flush mount casing set in bentonite
		Loose brown fine SAND, trace silt		0.27 / 48.26	1	SS DO	5						Native Backfill and Silica Sand mixture
1													50mm Diam. PVC #10 Slot Screen
		Grey SILTY CLAY		1.34 / 47.47	2	SS DO	1						Native Backfill
2		End of Borehole		2.13									
3													
4													
5													

DEPTH SCALE
1 : 25

Golder Associates

LOGGED: D.J.S.
CHECKED: SM

MIS-BHS 001 07-1122-0124-5000.GPJ GAL-MISS.GDT 25/3/08 JM

PROJECT: 10-1127-0065

RECORD OF BOREHOLE: G41-10

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 5, 2010

DATUM:

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (20 40 60 80)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	Power Auger 200mm Diam. (Hollow Stem)	Very loose black to dark brown organic matter (PEAT)		0.00	1	50 DO	WH				Bentonite Seal
1					2	50 DO	WH				Silica Sand
					3	50 DO	WH				50mm Diam. PVC #10 Slot Screen
2		Firm grey SILTY CLAY, trace sand		2.13	4	50 DO	PM				Cave
		End of Borehole		2.44							
3											
4											
5											

MIS-BHS 001 1011270065-6000.GPJ GAL-MIS.GDT 3/22/11 JM

DEPTH SCALE
1 : 25

Golder Associates

LOGGED: R.I.

CHECKED: LEB

PROJECT: 10-1127-0065

RECORD OF BOREHOLE: G42-10

SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: May 5, 2010

DATUM:

SAMPLER HAMMER, 64kg; DROP, 760mm

PENETRATION TEST HAMMER, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q- ●, rem V. ⊕ U- ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp W WI) (20 40 60 80)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	Power Auger 200mm Diam. (Hollow Stem)	Very loose black to dark brown organic matter (PEAT)		0.00	1	50 DO	WH				Bentonite Seal
1		Very stiff grey brown SILTY CLAY, trace sand and rootlets (Weathered Crust)		0.59	2	50 DO	7				Silica Sand
					3	50 DO	6				50mm Diam. PVC #10 Slot Screen
2		Very stiff grey SILTY CLAY, trace sand and red brown silty clay bands		1.83	4	50 DO	7				Cave
		End of Borehole		2.44							
3											
4											
5											

MIS-BHS 001 1011270065-6000.GPJ GAL-MIS.GDT 3/22/11 JM

DEPTH SCALE
1 : 25

Golder Associates

LOGGED: R.I.
CHECKED: LEB

PROJECT: 11-1127-0064

RECORD OF BOREHOLE: G43-11

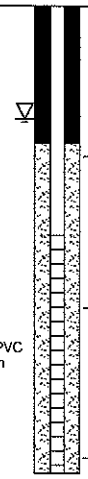
SHEET 1 OF 1

LOCATION: See Site Plan

BORING DATE: July 21, 2011

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80); SHEAR STRENGTH Cu, kPa nat V. + Q - ● rem V. ⊕ U - ○ (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}); WATER CONTENT PERCENT Wp ⊢—○W—⊣ Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		47.77							
0	Geoprobe	Dark brown to black organic matter, trace sand and silt (PEAT)		0.00	1	50 DO					Bentonite Seal
1		Grey brown SILTY CLAY, some organic matter		46.65 / 1.12							Silica Sand
		Grey brown SILTY CLAY, trace organic matter and fresh roots		1.22	2	50 DO					
2											32 mm Diam. PVC #10 Slot Screen
					3	50 DO					
3		End of Borehole		44.67 / 3.10							W.L. at 0.75 m depth on August 22, 2011
4											
5											
6											
7											
8											
9											
10											



DEPTH SCALE

1 : 50

Golder Associates

LOGGED: C.H.M

CHECKED: L.E.B.

MIS-BHS 001 1111270064-7000.GPJ GAL-MIS.GDT 02/06/12 JEM

APPENDIX E

Sampling Protocol

STANDARD SAMPLING PROTOCOL

The following is a description of the monitoring procedures and protocols used for groundwater and surface water monitoring for landfill sites.

Equipment Cleaning and Calibration

Regardless of matrix, prior to traveling to the site to be sampled, all equipment such as water level indicators and multi-parameter meters must be cleaned and calibrated as specified by the equipment manufacturer. Details of the cleaning and calibration should be recorded in the field notes**.**

GROUNDWATER
Monitoring Well Assessment

- provide an assessment of the status of all monitoring wells at the site;
- note any changes to the well and/or protective casing and record the physical condition of the well; and
- label all observation wells clearly and accurately on both the protective casing and well pipe.

Groundwater Monitoring

- maintain and use an accurate, up-to-date list of all observation wells to be monitored;
- check all field equipment for cleanliness; and
- wear personnel protective equipment (i.e. gloves, protective glasses, splash guards) during all phases of work, and follow any appropriate health and safety plan procedures.

Gas Detection in Wells (Prior to Measuring Water Levels)

- turn on gas meter and prepare for sampling atmospheric condition inside monitoring well;
- remove protective casing cover and well cap avoiding introduction of foreign materials into the well;
- immediately insert the probe attached to the gas meter into the well and wait for readings to stabilize;
- record the measurement in the appropriate column on the field data sheet or field book.

Water Level Measurements (Prior to Purging)

- always take water level measurements prior to purging or sampling;
- do not move dedicated sampling devices such as the "Waterra" inertial pump prior to measuring the water level; reference the measurement from the same location each time (marked location or lowest point on pipe);
- lower the tape/probe into the wells - record the depth to water when the indicator (audible/visual) shows the water level has been reached;
- measure the water level twice by raising and lowering the tape/probe; and
- record the measurement to the nearest cm (0.5 cm) in the appropriate column on the field data sheet or field book.

Well Purging (Prior to Sampling)

The purpose of purging is to remove the stagnant water from within a monitor (removal of 3 to 5 standing volumes) so that a representative water sample may be collected. The procedures for purging are as follows:

- purge the well only after water levels have been confirmed;
- lift the tubing off the bottom of the well and "pump" stagnant water from the well into a graduated container such as a bucket, pail or cylinder so that the purged volume can be measured and recorded;
- for low-yield wells, it is expected that either “no purge sampling techniques or low flow purging will be utilized (avoid purging well dry);
- under normal circumstances purged water may be discarded on the ground, away from the well to avoid the potential of water seeping back into the well; and
- allow a sufficient recovery period before sampling (not more than 48 hours).

Field Measurements

Field measurements are to be collected and recorded as outlined in the Certificate of Approval or the approved monitoring program.

Well Sampling

- collect the water sample as soon as practical (not more than 48 hours) after purging starting at the least contaminated and proceeding to the most contaminated;
- lift tubing and check valve off bottom of well to avoid introducing unnecessary sediment into the sample and transfer some representative sample water into a clean, well rinsed container to conduct measurements of field parameters;
- lift the tubing and gently transfer a sample into a clean container and thoroughly mix to form a single representative sample;
- transfer the sample into a pre-labelled sample bottle;
- for samples that require filtering, attach the disposable filter onto the end of the tubing (a 0.45 micron membrane filter should be used);
- attempt to keep sample agitation to a minimum during sample transfer;
- store samples in a cooler, with ice packs to keep cool;
- conduct field measurements (these typically include: temperature, pH and conductivity; and
- transport samples to laboratory within the maximum hold time established by the laboratory (typically within a 48 hour period).

Volatile Organic Compound (VOC) Sampling

Volatile Organic Compounds (VOC) can be easily lost during sample collection, storage, and transportation. The following sampling and handling protocols are adhered to.

VOC samples are to be collected in special containers provided by the laboratory. These typically include: glass vials, preferably amber, with a minimum capacity of 20 ml and sealed with Septum tops.

- vials must be filled just to overflowing in such a manner that no air bubbles pass through the vial as it is being filled (this is easier to accomplish by inserting a 4’ length of ¼ “ poly tubing into the existing wattera tubing and filling the vial from the ¼” tubing);

- vials must then be sealed with the cap so that no air bubbles are entrapped within it; the septum is placed with the Teflon side face down toward the inside of the bottle;
- check for the presence of air bubbles by inverting the vial and tapping on hard surface; if air bubbles are present, discard the sample and re-sample;
- all VOC samples must be preserved as specified by the laboratory (typically with 1 to 2 drops of Hydrochloric Acid (HCl)) and refrigerated or stored on ice until analysed; and
- VOC samples should be submitted in duplicate.

SURFACE WATER SAMPLING (GENERAL)

Surface water samples should be collected at the same designated location during each sample event (*do not collect samples from any station which is frozen, stagnant or otherwise not representative of normal conditions).*

- if you must stand in the stream, position yourself downstream of the sample location to avoid contaminating the sample with sediment, debris, and other floating materials;
- all equipment must be thoroughly rinsed with distilled water at the beginning of each station to avoid cross-contamination;
- wear gloves to handle the sample bottles;
- fill all bottles using an unpreserved transfer bottle (to avoid overflowing pre-preserved bottles);
- when sampling for dissolved metals, the sample must be filtered and placed in a separate metals bottle, while sampling for total metals, the sample is placed in a common bottle for metals that is provided by the laboratory;
- label and store all samples in the same manner as for groundwater samples; and
- conduct field measurements (these typically include: temperature, pH, conductivity, Dissolved Oxygen and Flow).

Flow Measurements (General)

- Discharge flow measurements must be taken at designated stations.

QA/QC Water Samples

A field quality assurance and quality control program for all monitoring events will be established as follows:

- where groundwater or surface water samples are taken, a field blank in which a set of sample bottles is filled with distilled water at a known site or monitoring station is submitted to the laboratory for analysis along with the samples;
- where VOC samples are taken, a trip blank, in which 1 set of VOC vials are filled with distilled water (at the laboratory or office) prior to going to the field and accompanies the sample bottles until they are returned to the lab; and
- duplicate of at least one sample set per sampling event or 1 duplicate for every 10 groundwater samples (do not identify the well number to the laboratory, but have it recorded in the field notes) use the sampling technique as for observation wells.

SAMPLING

Station Sampling Order
The stations will be sampled beginning with those wells exhibiting the lowest chemical concentrations and then moving on to wells with greater chemical concentrations.

Monitoring Periods
The monitoring periods are as recommended in either the annual report or the Certificate of Approval.:

Analytical Parameters
Analysis will be as recommended in either the annual report or the Certificate of Approval.

GAS DETECTION OF ON-SITE BUILDINGS
As part of a monitoring event,

APPENDIX F

Laboratory Certificate of Analysis

(PDF Only)

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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table _____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [ ] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: _____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: _____
- [x] Landfill Monitoring
- [x] Other: ODWS

REPORT NUMBER (Lab Use): B18-11665

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: JP29
Contact: Perry Larochelle
Tel: 613-281-0253
Fax:
Email:

Address and Invoicing Address (if different): 12 International Drive, Pembroke, ON.

Quote No.: L16_Clarence Rockland
Project Name:
~~P.O. No.:~~ Job No 17-6021B
~~Additional Info:~~

ANALYSES REQUESTED (Print Test in Boxes): ITEM #1, ITEM #2, ITEM #3

Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: _____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided				✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
1	GS 26-94		GW	18-04-30	5:15PM		✓		1		8.1	5.0	8	1
2	G 8C - 92C		"	" " "	5:45PM	✓			2		7.2	4.8	4	2
3	P 4-90		"	" " "	6:00PM		✓		3		7.1	3.4	8	3
4	G 38-03		"	" " "	6:15PM	✓			4		6.6	5.0	4	4
5	G 29-97		"	" " "	6:30PM		✓		5		6.6	8.2	8	5
6	G 36-01		GW	18-05-01	7:30AM	✓			6		7.3	4.0	4	6
7	P 2-90		"	" " "	7:45AM	✓			7		7.7	6.5	4	7
8	G 37-01		"	" " "	8:00AM		✓		8		7.1	6.5	8	8
9	G 20-92		"	" " "	8:15AM			✓	9		6.7	3.3	4	9
10	G 43-11		"	" " "	8:30AM		✓		10		6.6	5.7	8	10
11	G 42-10		"	" " "	9:00AM		✓		11		6.8	4.0	8	11

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	Perry Larochelle	
Sign:	P Larochelle	
	18-05-02	7:45AM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [x] Client's Courier
- [ ] Caduceon's Courier
- [ ] Drop Off
- [ ] Caduceon (Pick-up)
- Invoice [ ]
- # of Pieces: 3

REPORTING / INVOICING

- [ ] Report by Fax
- [x] Report by Email
- [x] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

- Received By (print): [illegible]
- Signature: SB
- Date Received (yy-mm-dd): 2/05/18
- Time Received: 15:30
- Laboratory Prepared Bottles: [x] Yes [ ] No
- Sample Temperature °C: 10.8
- Labeled by:

12R 27DEF 38NH 27M 12HW 12PH 27DOC 7UOC

Comments:

Page 1 of 3

G 67738

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CofC, Jan. 2017, Revision No: 20

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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table ____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [ ] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: ____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: ____
- [x] Landfill Monitoring
- [x] Other: ODWS

REPORT NUMBER (Lab Use)

May 2.18
B18-11655

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization:	Address and Invoicing Address (if different)	
JP29		
Contact: Perry Larochelle		
Tel: 613-281-0253		
Fax:	Quote No.: L16_Clarence Rockland	Project Name:
Email:	P.O. No.: 17-60217	Additional Info:

ANALYSES REQUESTED (Print Test in Boxes)

ITEM #1 | ITEM #2 | ITEM #3 | Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided	✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
12	G39-07		GW	18-05-01	9:15Am	✓ 12		7.3	5.4	4	12
13	G40-07		"	" " "	9:45Am	✓ 13		6.9	3.5	4	13
14	G44		"	" " "	10:00Am	✓ 14		6.9	3.5	4	14
15	G28-97		"	" " "	10:30Am	✓ 15		7.2	5.0	4	15
16	G315-98		"	" " "	10:45Am	✓ 16		9.1	8.9	4	16
17	G12-92		"	" " "	11:00Am	✓ 17		7.4	4.7	8	17
18	G45		"	" " "	11:30Am	✓ 18		7.4	5.0	8	18
19	G18-92		"	" " "	1:15Pm	✓ 19		6.8	4.7	8	19
20	G13-92		"	" " "	2:00Pm	✓ 20		7.1	4.9	4	20
21	G27-97		"	" " "	2:15Pm	✓ 21		7.1	5.6	4	21
22	G46		"	" " "	2:30Pm	✓ 22		7.1	5.0	4	22
23	G17-92		"	" " "	3:00Pm	✓ 23		7.1	6.0	4	23

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	Perry Larochelle	
Sign:		
	18-05-02	7:55 AM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [ ] Client's Courier
- [ ] Caduceon's Courier
- [ ] Drop Off
- [ ] Caduceon (Pick-up)
- Invoice [ ]
- # of Pieces

REPORTING / INVOICING

- [ ] Report by Fax
- [ ] Report by Email
- [ ] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): JOH — Signature: JB
Date Received (yy-mm-dd): 210518 — Time Received: 15:30
Laboratory Prepared Bottles: [x] Yes [ ] No
Sample Temperature °C: ____
Labeled by: ____

Comments:

Page 2 of 3
G 67739

White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

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TESTING REQUIREMENTS

- ☐ O.Reg 153 — Table ____
- ☐ Surface Soil — ☐ Sub Surface Soil (O.Reg 153)
- ☐ Yes ☐ No — Record of Site Condition (O.Reg 153)
- ☐ Provincial Water Quality Objectives
- ☐ Sewer Use By-Law: ____
- ☐ MISA Guidelines
- ☐ O.Reg 558 Leachate Analysis
- Disposal Site: ____
- ☑ Landfill Monitoring
- ☐ Other: ODWS

REPORT NUMBER (Lab Use): B18-11656

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? ☐ Yes ☑ No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: ☐ Kingston ☑ Ottawa ☐ Richmond Hill ☐ Windsor ☐ Barrie ☐ London

Organization:	Address and Invoicing Address (if different)	
Contact: Perry Larochelle		
Tel:		
Fax:	Quote No.: 116 - Clarence Rockland	Project Name:
Email:	P.O. No.: Job No 17-6021B	Additional Info:

ANALYSES REQUESTED (Print Test in Boxes): ITEM #1, ITEM #2, ITEM #3, ITEM #4; Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- ☐ Platinum — 200% Surcharge**
- ☐ Gold — 100% Surcharge
- ☐ Silver — 50% Surcharge
- ☐ Bronze — 25% Surcharge
- ☑ Standard — 5-7 days
- ☐ Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided	✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
24	GS 21-94		GW	18-05-01	3:15pm	24		7.2	4.9	4	.
25	PSB-91		"	" " "	3:45pm	25		6.6	8.2	10	B+1VOC
26	P1-90		"	" " "	4:00pm	26		6.6	6.8	10	B+2VOC
27	P6-91		"	" " "	4:30pm	27		—	—	10	B+2VOC
28	Trip Blank					28				2	VOC

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	Perry Larochelle	—
Sign:		
	18-05-02	8:00 Am
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- ☑ Client's Courier
- ☐ Caduceon's Courier
- ☐ Drop Off
- ☐ Caduceon (Pick-up)
- Invoice ☐
- # of Pieces: 3

REPORTING / INVOICING

- ☐ Report by Fax
- ☑ Report by Email
- ☑ Invoice by Email
- ☐ Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

- Received By (print): ____ Signature: ____
- Date Received (yy-mm-dd): ____ Time Received: ____
- ☑ Laboratory Prepared Bottles: ☑ Yes ☐ No
- Sample Temperature °C: ____ Labeled by: ____

Comments:

Page 3 of 3

G 67405

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ENVIRONMENTAL LABORATORIES
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QUOTATION FOR ANALYTICAL SERVICES

Quote # :	**L16_ClarenceRockland**
Organization:	**JP2G**
Contact:	Perry Larochelle
Telephone:	613-735-2507
Facsimile:	613-735-4513
Email:	perryl@jp2g.com
Project #:	**Clarence-Rockland Landfill - 2166270A**
Address:	12 International Drive, Pembroke ON K8A 6W5
Additional Info:	**QUOTE # ('S) MUST BE ON C OF C TO APPLY if not listed, General pricing will be applied.**
Additional Info:	**Laboratory detection limit should be to ODWS or PWQO - whichever is lowest**
Date:	31-Mar-16 **Valid Until:** 31-Dec-19

Item #	Quantity	Analysis Request	Matrix	Unit Cost, $	Amount, $
		Spring, Summer & Fall Sampling			
1	10 2,4,67,	**General Chemistry:** Alkalinity, Cl, DOC, TDS, **Nutrients:** NH3, TP, PO4 **Metals:** B, Na, Fe, Mn, Co + Hardness	GW	70.00	700.00
2	12 1,3,5,8,10, 11,17,18,19	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, TP/TKN, PO4 **Metals:** Ag, Al, B, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Tl, Ti, V, Zn + Hardness	GW	100.00	1200.00
3	25,26,27 28 (20→23, 24 9,12,13,14,15,16	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, TP, PO4 **Metals:** B, Fe, Mn, Na + Hardness	GW	70.00	1960.00
4	8	**VOC** (624 Scan) – 25→28.	GW	40.00	320.00
5	7	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, U-NH3, TP **Metals:** B, Fe, Mn, Na + Hardness	SW	70.00	490.00
6	18	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, U-NH3, TP/TKN **Metals:** Ag, Al **(total & dissolved)**, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Tl, Ti, V, Zn + Hardness	SW	100.00	1800.00

Prices do not include shipping unless otherwise stated.
Environmental disposal fees included in pricing

Subtotal	6,470.00
HST	841.10
Total Cost	7,311.10

Rebecca Marshall
Customer Service Representative
Caduceon Environmental Laboratories
613-526-0123

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67738, 67739, 67405 **REPORT No. B18-11665 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS 26-94	G8-92c	P4-90	G38-03
			Sample I.D.		B18-11665-1	B18-11665-2	B18-11665-3	B18-11665-4
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	34	272	146	407
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	25	208	109	310
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	48	270	154	507
Chloride	mg/L	0.5	SM4110C	03-May-18/O	3.8	7.5	6.2	18.2
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O	< 0.05		< 0.05	
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O	0.08		0.23	
Sulphate	mg/L	1	SM4110C	03-May-18/O	12		22	
Calcium	mg/L	0.02	SM 3120	08-May-18/O	8.91		47.9	
Magnesium	mg/L	0.02	SM 3120	08-May-18/O	2.74		6.37	
Sodium	mg/L	0.2	SM 3120	08-May-18/O	5.4	6.1	4.8	25.1
Potassium	mg/L	0.1	SM 3120	08-May-18/O	0.9		2.2	
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.02		0.03	
Barium	mg/L	0.001	SM 3120	08-May-18/O	0.008		0.033	
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001		< 0.0001	
Boron	mg/L	0.005	SM 3120	08-May-18/O	0.012	0.029	0.018	0.091
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O	< 0.000015		< 0.000015	
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O	< 0.001		< 0.001	
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0002	< 0.0001	< 0.0001	0.0051
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0009		0.0016	
Iron	mg/L	0.005	SM 3120	08-May-18/O	0.007	< 0.005	0.006	45.1
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O	0.00002		< 0.00002	
Manganese	mg/L	0.001	SM 3120	08-May-18/O	0.052	0.001	0.001	4.95
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002		< 0.00002	
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001		0.0003	
Nickel	mg/L	0.01	SM 3120	08-May-18/O	< 0.01		< 0.01	
Silicon	mg/L	0.01	SM 3120	08-May-18/O	2.98		2.76	
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001		< 0.0001	

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67738, 67739, 67405 **REPORT No. B18-11665 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS 26-94	G8-92c	P4-90	G38-03
			Sample I.D.		B18-11665-1	B18-11665-2	B18-11665-3	B18-11665-4
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	08-May-18/O	0.099		0.213	
Sulphur	mg/L	0.1	SM 3120	08-May-18/O	3.5		6.8	
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O	< 0.00005		< 0.00005	
Titanium	mg/L	0.005	SM 3120	08-May-18/O	< 0.005		< 0.005	
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0001		0.0008	
Zinc	mg/L	0.005	SM 3120	08-May-18/O	< 0.005		< 0.005	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	0.02	< 0.01	< 0.01	0.03
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	0.6		0.9	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	0.08	< 0.01	0.02	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	4.74	2.18	6.23	0.60
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001		< 0.001	
BOD	mg/L	3	SM 5210B	03-May-18/O	< 3		< 3	
COD	mg/L	5	SM 5220D	07-May-18/O	55		63	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	2.4	3.1	2.9	9.3
Anion Sum	meq/L		Calc.	09-May-18/O	0.854		2.81	
Cation Sum	meq/L		Calc.	09-May-18/O	0.933		3.18	
% Difference	%		Calc.	09-May-18/O	4.40		6.08	
Ion Ratio	AS/CS		Calc.	09-May-18/O	0.916		0.885	
Sodium Adsorption Ratio	-		Calc.	09-May-18/O	0.408		0.171	
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O	96.0		298	

1 Elevated RL due to chloride interference

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G29-97	G36-01	P2-90	G37-01
			Sample I.D.		B18-11665-5	B18-11665-6	B18-11665-7	B18-11665-8
			Date Collected		30-Apr-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	545	443	17	103
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	464	231	101	32
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	590	507	124	343
Chloride	mg/L	0.5	SM4110C	03-May-18/O	28.8	42.4	2.6	138
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O	< 0.05			< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O	0.12			4.94
Sulphate	mg/L	1	SM4110C	03-May-18/O	53			48
Calcium	mg/L	0.02	SM 3120	08-May-18/O	149			26.3
Magnesium	mg/L	0.02	SM 3120	08-May-18/O	42.0			9.14
Sodium	mg/L	0.2	SM 3120	08-May-18/O	33.2	31.3	51.8	101
Potassium	mg/L	0.1	SM 3120	08-May-18/O	2.3			0.7
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.08			0.03
Barium	mg/L	0.001	SM 3120	08-May-18/O	0.093			0.057
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001			< 0.0001
Boron	mg/L	0.005	SM 3120	08-May-18/O	0.074	0.069	< 0.005	0.009
Cadmium	mg/L	0.000015	EPA 200.8	08-May-18/O	0.000144			0.000057
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O	< 0.001			0.004
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0055	0.0013	< 0.0001	0.0001
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0053			0.0007
Iron	mg/L	0.005	SM 3120	08-May-18/O	0.021	0.009	0.028	0.005
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O	< 0.00002			< 0.00002
Manganese	mg/L	0.001	SM 3120	08-May-18/O	3.52	4.68	0.001	0.019
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002			< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0002			< 0.0001
Nickel	mg/L	0.01	SM 3120	08-May-18/O	0.01			< 0.01
Silicon	mg/L	0.01	SM 3120	08-May-18/O	7.69			5.30
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001			< 0.0001

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Ottawa Ontario K1V 7P1
Tel: 613-526-0123
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DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G29-97	G36-01	P2-90	G37-01
			Sample I.D.		B18-11665-5	B18-11665-6	B18-11665-7	B18-11665-8
			Date Collected		30-Apr-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	08-May-18/O	0.914			0.322
Sulphur	mg/L	0.1	SM 3120	08-May-18/O	17.3			14.1
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O	< 0.00005			< 0.00005
Titanium	mg/L	0.005	SM 3120	08-May-18/O	< 0.005			< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0010			< 0.0001
Zinc	mg/L	0.005	SM 3120	08-May-18/O	< 0.005			< 0.005
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	< 0.01	0.02	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	1.8			0.3
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	0.02	< 0.01	0.04	0.03
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	12.3	0.16	3.98	0.19
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001			< 0.001
BOD	mg/L	3	SM 5210B	03-May-18/O	< 3			< 3
COD	mg/L	5	SM 5220D	07-May-18/O	99			69
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	13.2	26.4	3.5	1.8
Anion Sum	meq/L		Calc.	09-May-18/O	11.2			5.90
Cation Sum	meq/L		Calc.	09-May-18/O	12.5			6.47
% Difference	%		Calc.	09-May-18/O	5.73			4.66
Ion Ratio	AS/CS		Calc.	09-May-18/O	0.892			0.911
Sodium Adsorption Ratio	-		Calc.	09-May-18/O	0.619			4.32
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O	1030			667

1 Elevated RL due to chloride interference

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G20-92	G43-11	G42-10	G39-07
			Sample I.D.		B18-11665-9	B18-11665-10	B18-11665-11	B18-11665-12
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	550	191	261	195
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	635	255	203	205
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	746	346	614	319
Chloride	mg/L	0.5	SM4110C	03-May-18/O	25.3	41.4	231	48.8
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O		< 0.05	< 0.05	
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O		< 0.05	0.12	
Sulphate	mg/L	1	SM4110C	03-May-18/O		1	8	
Calcium	mg/L	0.02	SM 3120	08-May-18/O		46.5	54.6	
Magnesium	mg/L	0.02	SM 3120	08-May-18/O		18.3	30.2	
Sodium	mg/L	0.2	SM 3120	08-May-18/O	50.8	77.6	160	64.3
Potassium	mg/L	0.1	SM 3120	08-May-18/O		4.7	4.5	
Aluminum	mg/L	0.01	SM 3120	08-May-18/O		0.17	0.22	
Barium	mg/L	0.001	SM 3120	08-May-18/O		0.036	0.050	
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O		< 0.0001	< 0.0001	
Boron	mg/L	0.005	SM 3120	08-May-18/O	1.01	0.294	0.162	0.721
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O		< 0.000015	0.000022	
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O		0.002	0.002	
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O		0.0010	0.0016	
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O		0.0006	0.0025	
Iron	mg/L	0.005	SM 3120	08-May-18/O	0.074	3.19	2.78	0.325
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O		0.00009	0.00051	
Manganese	mg/L	0.001	SM 3120	08-May-18/O	0.599	0.257	0.824	0.222
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O		< 0.00002	< 0.00002	
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O		0.0002	0.0005	
Nickel	mg/L	0.01	SM 3120	08-May-18/O		< 0.01	< 0.01	
Silicon	mg/L	0.01	SM 3120	08-May-18/O		7.58	5.50	
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O		< 0.0001	< 0.0001	

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67738, 67739, 67405 **REPORT No. B18-11665 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G20-92	G43-11	G42-10	G39-07
			Sample I.D.		B18-11665-9	B18-11665-10	B18-11665-11	B18-11665-12
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	08-May-18/O		0.231	0.257	
Sulphur	mg/L	0.1	SM 3120	08-May-18/O		1.6	3.5	
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O		< 0.00005	< 0.00005	
Titanium	mg/L	0.005	SM 3120	08-May-18/O		< 0.005	0.006	
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O		0.0021	0.0022	
Zinc	mg/L	0.005	SM 3120	08-May-18/O		< 0.005	0.013	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	18.3	2.03	0.70	0.32
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K		12.6	3.2	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	< 0.01	0.33	0.04	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	1.01	4.72	0.32	0.32
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O		< 0.001	< 0.001	
BOD	mg/L	3	SM 5210B	03-May-18/O		< 3	< 3	
COD	mg/L	5	SM 5220D	07-May-18/O		370	213	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	22.8	49.1	26.6	13.8
Anion Sum	meq/L		Calc.	09-May-18/O		6.29	10.8	
Cation Sum	meq/L		Calc.	09-May-18/O		7.50	12.5	
% Difference	%		Calc.	09-May-18/O		8.79	7.35	
Ion Ratio	AS/CS		Calc.	09-May-18/O		0.838	0.863	
Sodium Adsorption Ratio	-		Calc.	09-May-18/O		2.44	4.31	
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O		635	1170	

1 Elevated RL due to chloride interference

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G40-07	G44	G28-97	G31S-98
			Sample I.D.		B18-11665-13	B18-11665-14	B18-11665-15	B18-11665-16
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	202	200	222	11
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	203	205	298	427
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	321	323	404	634
Chloride	mg/L	0.5	SM4110C	03-May-18/O	56.6	57.4	50.1	88.9
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O				
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O				
Sulphate	mg/L	1	SM4110C	03-May-18/O				
Calcium	mg/L	0.02	SM 3120	08-May-18/O				
Magnesium	mg/L	0.02	SM 3120	08-May-18/O				
Sodium	mg/L	0.2	SM 3120	08-May-18/O	57.9	58.5	93.5	279
Potassium	mg/L	0.1	SM 3120	08-May-18/O				
Aluminum	mg/L	0.01	SM 3120	08-May-18/O				
Barium	mg/L	0.001	SM 3120	08-May-18/O				
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O				
Boron	mg/L	0.005	SM 3120	08-May-18/O	0.557	0.562	1.22	1.01
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O				
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O				
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O				
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O				
Iron	mg/L	0.005	SM 3120	08-May-18/O	1.74	1.68	0.108	0.033
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O				
Manganese	mg/L	0.001	SM 3120	08-May-18/O	0.493	0.483	0.057	0.005
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O				
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O				
Nickel	mg/L	0.01	SM 3120	08-May-18/O				
Silicon	mg/L	0.01	SM 3120	08-May-18/O				
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O				

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G40-07	G44	G28-97	G31S-98
			Sample I.D.		B18-11665-13	B18-11665-14	B18-11665-15	B18-11665-16
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	08-May-18/O				
Sulphur	mg/L	0.1	SM 3120	08-May-18/O				
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O				
Titanium	mg/L	0.005	SM 3120	08-May-18/O				
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O				
Zinc	mg/L	0.005	SM 3120	08-May-18/O				
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	< 0.01	< 0.01	0.06	0.65
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K				
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	0.01	0.06	0.01	0.91
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.25	0.25	0.10	9.36
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O				
BOD	mg/L	3	SM 5210B	03-May-18/O				
COD	mg/L	5	SM 5220D	07-May-18/O				
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	18.3	18.3	24.8	13.9
Anion Sum	meq/L		Calc.	09-May-18/O				
Cation Sum	meq/L		Calc.	09-May-18/O				
% Difference	%		Calc.	09-May-18/O				
Ion Ratio	AS/CS		Calc.	09-May-18/O				
Sodium Adsorption Ratio	-		Calc.	09-May-18/O				
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O				

1 . Elevated RL due to chloride interference

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G12-92	G45	G18-92	G1-92
			Sample I.D.		B18-11665-17	B18-11665-18	B18-11665-19	B18-11665-20
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	210	212	165	240
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	233	232	111	225
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	303	304	174	266
Chloride	mg/L	0.5	SM4110C	03-May-18/O	31.6	31.8	7.9	9.0
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O	< 0.05	< 0.05	< 0.05	
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O	1.17	1.26	2.39	
Sulphate	mg/L	1	SM4110C	03-May-18/O	20	21	33	
Calcium	mg/L	0.02	SM 3120	08-May-18/O	49.0	50.3	47.2	
Magnesium	mg/L	0.02	SM 3120	08-May-18/O	21.2	21.1	11.5	
Sodium	mg/L	0.2	SM 3120	08-May-18/O	38.2	37.6	4.5	20.8
Potassium	mg/L	0.1	SM 3120	08-May-18/O	3.5	3.4	3.5	
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.04	0.04	0.03	
Barium	mg/L	0.001	SM 3120	08-May-18/O	0.018	0.018	0.034	
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001	< 0.0001	< 0.0001	
Boron	mg/L	0.005	SM 3120	08-May-18/O	0.022	0.021	0.107	0.096
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O	< 0.000015	< 0.000015	< 0.000015	
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O	< 0.001	< 0.001	0.003	
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001	< 0.0001	0.0001	
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0007	0.0015	0.0003	
Iron	mg/L	0.005	SM 3120	08-May-18/O	< 0.005	< 0.005	0.088	0.031
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O	0.00005	0.00003	< 0.00002	
Manganese	mg/L	0.001	SM 3120	08-May-18/O	0.033	0.034	0.059	0.024
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0004	0.0004	< 0.0001	
Nickel	mg/L	0.01	SM 3120	08-May-18/O	< 0.01	< 0.01	< 0.01	
Silicon	mg/L	0.01	SM 3120	08-May-18/O	4.72	4.77	4.93	
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001	< 0.0001	< 0.0001	

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G12-92	G45	G18-92	G1-92
			Sample I.D.		B18-11665-17	B18-11665-18	B18-11665-19	B18-11665-20
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Strontium	mg/L	0.001	SM 3120	08-May-18/O	0.177	0.177	0.248	
Sulphur	mg/L	0.1	SM 3120	08-May-18/O	6.1	6.2	9.8	
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O	< 0.00005	< 0.00005	< 0.00005	
Titanium	mg/L	0.005	SM 3120	08-May-18/O	< 0.005	< 0.005	< 0.005	
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0002	0.0002	0.0002	
Zinc	mg/L	0.005	SM 3120	08-May-18/O	< 0.005	< 0.005	< 0.005	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	< 0.01	< 0.01	0.08	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	1.6	2.0	0.9	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	0.01	0.01	0.04	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.84	0.93	1.48	0.10
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001	< 0.001	< 0.001	
BOD	mg/L	3	SM 5210B	03-May-18/O	< 3	< 3	< 3	
COD	mg/L	5	SM 5220D	07-May-18/O	81	83	82	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	2.2	2.0	2.4	24.4
Anion Sum	meq/L		Calc.	09-May-18/O	6.04	6.05	3.29	
Cation Sum	meq/L		Calc.	09-May-18/O	5.94	5.97	3.59	
% Difference	%		Calc.	09-May-18/O	0.862	0.669	4.45	
Ion Ratio	AS/CS		Calc.	09-May-18/O	1.02	1.01	0.915	
Sodium Adsorption Ratio	-		Calc.	09-May-18/O	1.15	1.12	0.152	
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O	559	561	334	

1 . Elevated RL due to chloride interference

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DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

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P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G27-97	G46	G17-92	GS21-94
			Sample I.D.		B18-11665-21	B18-11665-22	B18-11665-23	B18-11665-24
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	729	737	236	93
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	543	576	204	163
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	908	933	233	268
Chloride	mg/L	0.5	SM4110C	03-May-18/O	111	110	4.7	37.0
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O				
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O				
Sulphate	mg/L	1	SM4110C	03-May-18/O				
Calcium	mg/L	0.02	SM 3120	08-May-18/O				
Magnesium	mg/L	0.02	SM 3120	08-May-18/O				
Sodium	mg/L	0.2	SM 3120	08-May-18/O	79.9	82.5	9.4	82.9
Potassium	mg/L	0.1	SM 3120	08-May-18/O				
Aluminum	mg/L	0.01	SM 3120	08-May-18/O				
Barium	mg/L	0.001	SM 3120	08-May-18/O				
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O				
Boron	mg/L	0.005	SM 3120	08-May-18/O	0.528	0.562	0.009	< 0.005
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O				
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O				
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O				
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O				
Iron	mg/L	0.005	SM 3120	08-May-18/O	0.594	0.453	0.028	0.014
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O				
Manganese	mg/L	0.001	SM 3120	08-May-18/O	0.529	0.536	0.106	0.001
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O				
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O				
Nickel	mg/L	0.01	SM 3120	08-May-18/O				
Silicon	mg/L	0.01	SM 3120	08-May-18/O				
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O				

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67738, 67739, 67405 **REPORT No. B18-11665 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		G27-97	G46	G17-92	GS21-94
			Sample I.D.		B18-11665-21	B18-11665-22	B18-11665-23	B18-11665-24
			Date Collected		01-May-18	01-May-18	01-May-18	01-May-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	08-May-18/O				
Sulphur	mg/L	0.1	SM 3120	08-May-18/O				
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O				
Titanium	mg/L	0.005	SM 3120	08-May-18/O				
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O				
Zinc	mg/L	0.005	SM 3120	08-May-18/O				
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	0.42	0.43	0.02	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K				
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	< 0.01	< 0.01	< 0.01	0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.17	0.15	0.83	0.68
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O				
BOD	mg/L	3	SM 5210B	03-May-18/O				
COD	mg/L	5	SM 5220D	07-May-18/O				
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	18.8	18.9	4.0	2.5
Anion Sum	meq/L		Calc.	09-May-18/O				
Cation Sum	meq/L		Calc.	09-May-18/O				
% Difference	%		Calc.	09-May-18/O				
Ion Ratio	AS/CS		Calc.	09-May-18/O				
Sodium Adsorption Ratio	-		Calc.	09-May-18/O				
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O				

1 . Elevated RL due to chloride interference

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91	P1-90	P6-91	
			Sample I.D.		B18-11665-25	B18-11665-26	B18-11665-27	
			Date Collected		01-May-18	01-May-18	01-May-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO3)	mg/L	1	SM 3120	08-May-18/O	647	1430	1480	
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	03-May-18/O	1240	1470	2010	
TDS(ion sum calc.)	mg/L	1	Calc.	09-May-18/O	1316	1924	2787	
Chloride	mg/L	0.5	SM4110C	03-May-18/O	63.7	255	526	
Nitrite (N)	mg/L	0.05	SM4110C	03-May-18/O	< 0.05	< 0.5 [1]	< 0.5 [1]	
Nitrate (N)	mg/L	0.05	SM4110C	03-May-18/O	0.33	< 0.5 [1]	< 0.5 [1]	
Sulphate	mg/L	1	SM4110C	03-May-18/O	11	< 10 [1]	< 10 [1]	
Calcium	mg/L	0.02	SM 3120	08-May-18/O	199	368	404	
Magnesium	mg/L	0.02	SM 3120	08-May-18/O	36.3	124	114	
Sodium	mg/L	0.2	SM 3120	08-May-18/O	110	244	441	
Potassium	mg/L	0.1	SM 3120	08-May-18/O	98.9	17.1	77.5	
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.10	0.14	0.15	
Barium	mg/L	0.001	SM 3120	08-May-18/O	0.472	0.293	0.844	
Beryllium	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001	< 0.0001	< 0.0001	
Boron	mg/L	0.005	SM 3120	08-May-18/O	1.34	1.74	2.69	
Cadmium	mg/L	).000015	EPA 200.8	08-May-18/O	0.000036	< 0.000015	< 0.000015	
Chromium	mg/L	0.001	EPA 200.8	08-May-18/O	0.002	0.003	0.003	
Cobalt	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0047	0.0013	0.0015	
Copper	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0011	< 0.0001	0.0002	
Iron	mg/L	0.005	SM 3120	08-May-18/O	48.7	25.9	7.36	
Lead	mg/L	0.00002	EPA 200.8	08-May-18/O	0.00008	< 0.00002	< 0.00002	
Manganese	mg/L	0.001	SM 3120	08-May-18/O	3.38	6.07	12.5	
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0004	< 0.0001	< 0.0001	
Nickel	mg/L	0.01	SM 3120	08-May-18/O	< 0.01	< 0.01	0.01	
Silicon	mg/L	0.01	SM 3120	08-May-18/O	8.96	11.3	12.9	
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O	< 0.0001	< 0.0001	< 0.0001	

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67738, 67739, 67405 **REPORT No. B18-11665 (i)**

Report To:

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91	P1-90	P6-91	
			Sample I.D.		B18-11665-25	B18-11665-26	B18-11665-27	
			Date Collected		01-May-18	01-May-18	01-May-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Strontium	mg/L	0.001	SM 3120	08-May-18/O	1.20	2.13	2.33	
Sulphur	mg/L	0.1	SM 3120	08-May-18/O	5.8	6.9	8.0	
Thallium	mg/L	0.00005	EPA 200.8	08-May-18/O	< 0.00005	< 0.00005	< 0.00005	
Titanium	mg/L	0.005	SM 3120	08-May-18/O	< 0.005	< 0.005	0.012	
Vanadium	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0061	0.0064	0.0094	
Zinc	mg/L	0.005	SM 3120	08-May-18/O	< 0.005	< 0.005	0.009	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	90.1	0.84	88.8	
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	103	5.6	117	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	< 0.01	< 0.01	0.02	
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.40	0.25	0.31	
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001	< 0.001	0.005	
BOD	mg/L	3	SM 5210B	03-May-18/O	6	7	12	
COD	mg/L	5	SM 5220D	07-May-18/O	187	187	384	
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	07-May-18/O	54.1	61.6	121	
Anion Sum	meq/L		Calc.	09-May-18/O	26.9	36.6	54.9	
Cation Sum	meq/L		Calc.	09-May-18/O	23.0	41.3	51.6	
% Difference	%		Calc.	09-May-18/O	7.79	6.00	3.10	
Ion Ratio	AS/CS		Calc.	09-May-18/O	1.17	0.887	1.06	
Sodium Adsorption Ratio	-		Calc.	09-May-18/O	1.88	2.81	4.99	
Conductivity (calc.)	µmho/cm		Calc.	09-May-18/O	1870	2910	3970	

1 Elevated RL due to chloride interference

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 24-May-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91	P1-90	P6-91	Trip Blank
			Sample I.D.		B18-11665-25	B18-11665-26	B18-11665-27	B18-11665-28
			Date Collected		01-May-18	01-May-18	01-May-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Acetone	µg/L	2	EPA 8260	04-May-18/O	< 2	< 2	< 2	< 2
Benzene	µg/L	0.5	EPA 8260	04-May-18/O	1.3	1.2	2.1	< 0.5
Bromodichloromethane	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Bromoform	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Bromomethane	µg/L	0.3	EPA 8260	04-May-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Carbon Tetrachloride	µg/L	0.2	EPA 8260	04-May-18/O	< 0.2	< 0.2	< 0.2	< 0.2
Monochlorobenzene (Chlorobenzene)	µg/L	0.2	EPA 8260	04-May-18/O	0.3	0.3	1.1	< 0.2
Chloroform	µg/L	0.3	EPA 8260	04-May-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Dibromochloromethane	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dibromoethane,1,2- (Ethylene Dibromide)	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,2-	µg/L	0.1	EPA 8260	04-May-18/O	0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,3-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,4-	µg/L	0.2	EPA 8260	04-May-18/O	0.5	< 0.2	< 0.2	< 0.2
Dichlorodifluoromethane	µg/L	1	EPA 8260	04-May-18/O	< 1	< 1	< 1	< 1
Dichloroethane,1,1-	µg/L	0.1	EPA 8260	04-May-18/O	0.1	0.2	0.3	< 0.1
Dichloroethane,1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	2.2	< 0.1
Dichloroethene, 1,1-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloroethene, cis-1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloroethene, trans-1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropane,1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene, cis-1,3-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene, trans-1,3-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene 1,3- cis+trans	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	µg/L	0.5	EPA 8260	04-May-18/O	< 0.5	< 0.5	< 0.5	< 0.5

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91	P1-90	P6-91	Trip Blank
			Sample I.D.		B18-11665-25	B18-11665-26	B18-11665-27	B18-11665-28
			Date Collected		01-May-18	01-May-18	01-May-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hexane	µg/L	1	EPA 8260	04-May-18/O	< 1	< 1	< 1	< 1
Dichloromethane (Methylene Chloride)	µg/L	0.3	EPA 8260	04-May-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Methyl Ethyl Ketone	µg/L	1	EPA 8260	04-May-18/O	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	µg/L	1	EPA 8260	04-May-18/O	< 1	< 1	< 1	< 1
Methyl-t-butyl Ether	µg/L	1	EPA 8260	04-May-18/O	< 1	2	3	< 1
Styrene	µg/L	0.5	EPA 8260	04-May-18/O	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethane,1,1,1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethane,1,1,2,2-	µg/L	0.4	EPA 8260	04-May-18/O	< 0.4	< 0.4	< 0.4	< 0.4
Tetrachloroethylene	µg/L	0.2	EPA 8260	04-May-18/O	< 0.2	< 0.2	< 0.2	< 0.2
Toluene	µg/L	0.5	EPA 8260	04-May-18/O	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethane,1,1,1-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichloroethane,1,1,2-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichloroethylene	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl Chloride	µg/L	0.2	EPA 8260	04-May-18/O	< 0.2	0.2	< 0.2	< 0.2
Xylene, m,p-	µg/L	0.4	EPA 8260	04-May-18/O	< 0.4	< 0.4	< 0.4	< 0.4
Xylene, o-	µg/L	0.1	EPA 8260	04-May-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Xylene, m,p,o-	µg/L	0.4	EPA 8260	04-May-18/O	< 0.4	< 0.4	< 0.4	< 0.4
Dichloroethane-d4,1,2-(SS)	%		EPA 8260	04-May-18/O	69.0	67.0	66.0	69.0
Toluene-d8 (SS)	%		EPA 8260	04-May-18/O	95.0	95.0	94.0	96.0
Bromofluorobenzene,4(SS)	%		EPA 8260	04-May-18/O	109	108	108	108

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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TESTING REQUIREMENTS

- ☐ O.Reg 153 — Table ____
- ☐ Surface Soil — ☐ Sub Surface Soil (O.Reg 153)
- ☐ Yes ☐ No — Record of Site Condition (O.Reg 153)
- ☑ Provincial Water Quality Objectives
- ☐ Sewer Use By-Law: ____
- ☐ MISA Guidelines
- ☐ O.Reg 558 Leachate Analysis
- Disposal Site: ____
- ☑ Landfill Monitoring
- ☐ Other: ____

REPORT NUMBER (Lab Use)

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? ☐ Yes ☑ No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: ☐ Kingston ☑ Ottawa ☐ Richmond Hill ☐ Windsor ☐ Barrie ☐ London

Organization: JPZ9	Address and Invoicing Address (if different): 12 International Drive, Pembroke, On
Contact: Perry Larochelle	
Tel: 613-281-0253	
Fax:	Quote No.: L16_Clarence Rockland
Email: perry@jpes.com	P.O. No.: Job No 17-6021B — Additional Info:

ANALYSES REQUESTED (Print Test in Boxes)

Item # 5 | Item # 6 | Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- ☐ Platinum — 200% Surcharge**
- ☐ Gold — 100% Surcharge
- ☐ Silver — 50% Surcharge
- ☐ Bronze — 25% Surcharge
- ☑ Standard — 5-7 days
- ☐ Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided	✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
	GS-8		SW	18-04-30	11:15Am	✓		7.9	7.1	9	
	S-3		"	" " "	11:45Am	✓		7.2	9.0	"	
	S-2		"	" " "	12:15Pm	✓		7.6	8.0	"	
	S-1		"	" " "	12:45Pm	✓		7.6	8.8	"	
	GS-17		"	" " "	1:15Pm	✓		7.6	9.2	"	
	GS-6		"	" " "	1:45Pm	✓		7.6	9.0	"	
	GS-20		"	" " "	2:15Pm	✓		7.6	9.3	4	
	GS-21		"	" " "	2:45Pm	✓		7.7	9.7	4	
	GS-22		"	" " "	3:15Pm	✓		7.7	9.5	4	
	GS-11		"	" " "	3:45Pm	✓		7.6	8.5	9	
	GS-12		"	" " "	4:15Pm	✓		8.1	10.6	"	
	GS-15		"	" " "	4:45Pm	✓		8.2	10.4	"	

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	Perry Larochelle	
Sign:		
	18-05-02	7:30 AM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- ☑ Client's Courier
- ☐ Caduceon's Courier
- ☐ Drop Off
- ☐ Caduceon (Pick-up)

Invoice ☐ — # of Pieces: 1

REPORTING / INVOICING

- ☐ Report by Fax
- ☑ Report by Email
- ☐ Invoice by Email
- ☐ Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

- Received By (print): — Signature:
- Date Received (yy-mm-dd): — Time Received:
- Laboratory Prepared Bottles: ☑ Yes ☐ No
- Sample Temperature °C: — Labeled by:

Comments:

Page 1 of 1

G 67737

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67737 **REPORT No. B18-11653**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-8	S-3	S-2	S-1
			Sample I.D.		B18-11653-1	B18-11653-2	B18-11653-3	B18-11653-4
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	07-May-18/O	100	79	96	94
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	04-May-18/O	74	70	69	65
Chloride	mg/L	0.5	SM4110C	02-May-18/O	18.1	2.3	20.7	17.1
Nitrite (N)	mg/L	0.05	SM4110C	02-May-18/O	< 0.05	< 0.05	< 0.05	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	02-May-18/O	0.75	0.14	0.69	0.97
Sulphate	mg/L	1	SM4110C	02-May-18/O	7	22	7	7
Calcium	mg/L	0.02	SM 3120	07-May-18/O	26.0	27.0	25.5	25.0
Magnesium	mg/L	0.02	SM 3120	07-May-18/O	8.54	2.89	7.88	7.55
Sodium	mg/L	0.2	SM 3120	07-May-18/O	12.6	2.3	14.1	12.0
Potassium	mg/L	0.1	SM 3120	07-May-18/O	2.2	1.2	1.9	1.3
Aluminum (total)	mg/L	0.01	SM 3120	07-May-18/O	1.40	0.07	0.95	0.71
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.12	0.03	0.13	0.13
Barium	mg/L	0.001	SM 3120	07-May-18/O	0.038	0.018	0.034	0.033
Beryllium	mg/L	0.002	SM 3120	07-May-18/O	< 0.002	< 0.002	< 0.002	< 0.002
Boron	mg/L	0.005	SM 3120	07-May-18/O	0.011	0.037	0.012	0.011
Cadmium	mg/L	).000015	EPA 200.8	03-May-18/O	0.000033	< 0.000015	0.000018	0.000023
Chromium	mg/L	0.001	EPA 200.8	03-May-18/O	0.005	< 0.001	0.003	0.002
Cobalt	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0009	0.0010	0.0007	0.0005
Copper	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0040	0.0004	0.0029	0.0024
Iron	mg/L	0.005	SM 3120	07-May-18/O	1.80	2.59	1.27	1.08
Lead	mg/L	0.00002	EPA 200.8	03-May-18/O	0.00101	0.00017	0.00079	0.00062
Manganese	mg/L	0.001	SM 3120	07-May-18/O	0.064	0.248	0.063	0.060
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0002	< 0.0001	0.0004	0.0003
Nickel	mg/L	0.0002	EPA 200.8	03-May-18/O	0.0035	0.0014	0.0024	0.0020
Silicon	mg/L	0.01	SM 3120	07-May-18/O	5.48	4.46	4.89	4.50
Silver	mg/L	0.00002	EPA 200.8	03-May-18/O	< 0.00002	< 0.00002	< 0.00002	< 0.00002

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G67737 **REPORT No. B18-11653**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

	Client I.D.	GS-8	S-3	S-2	S-1
	Sample I.D.	B18-11653-1	B18-11653-2	B18-11653-3	B18-11653-4
	Date Collected	30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Strontium	mg/L	0.001	SM 3120	07-May-18/O	0.112	0.091	0.110	0.108
Sulphur	mg/L	0.1	SM 3120	07-May-18/O	2.4	6.8	2.4	2.4
Thallium	mg/L	0.00005	EPA 200.8	03-May-18/O	0.00023	0.00021	0.00022	0.00022
Titanium	mg/L	0.005	SM 3120	07-May-18/O	0.083	< 0.005	0.043	0.024
Vanadium	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0046	0.0005	0.0035	0.0028
Zinc	mg/L	0.005	SM 3120	07-May-18/O	0.020	0.008	0.022	0.020
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	07-May-18/K	0.05	0.12	0.04	0.04
Ammonia (N)-unionized	mg/L	0.01	CALC	07-May-18/K	< 0.01	0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	0.7	0.4	0.6	0.6
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.16	0.05	0.12	0.09
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001	< 0.001	< 0.001	< 0.001
BOD	mg/L	3	SM 5210B	03-May-18/O	< 3	< 3	< 3	< 3
COD	mg/L	5	SM 5220D	07-May-18/O	82	51	76	79
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	05-May-18/O	12.4	4.5	12.4	16.0
TDS(ion sum calc.)	mg/L	1	Calc.	08-May-18/O	121	103	120	110
Anion Sum	meq/L		Calc.	08-May-18/O	2.20	1.93	2.16	2.00
Cation Sum	meq/L		Calc.	08-May-18/O	2.71	1.88	2.65	2.49
% Difference	%		Calc.	08-May-18/O	10.4 [1]	1.41	10.3 [1]	10.8 [1]
Ion Ratio	AS/CS		Calc.	08-May-18/O	0.811	1.03	0.814	0.805
Sodium Adsorption Ratio	-		Calc.	08-May-18/O	0.548	0.114	0.626	0.540
Conductivity (calc.)	µmho/cm		Calc.	08-May-18/O	242	186	242	224

1 Outside of 10% Acceptance Criteria, solids present

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-17	GS-6	GS-20	GS-21
			Sample I.D.		B18-11653-5	B18-11653-6	B18-11653-7	B18-11653-8
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	07-May-18/O	95	83	116	113
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	04-May-18/O	66	56	93	82
Chloride	mg/L	0.5	SM4110C	02-May-18/O	27.2	8.2	44.6	26.7
Nitrite (N)	mg/L	0.05	SM4110C	02-May-18/O	< 0.05	< 0.05		
Nitrate (N)	mg/L	0.05	SM4110C	02-May-18/O	0.05	0.95		
Sulphate	mg/L	1	SM4110C	02-May-18/O	6	6		
Calcium	mg/L	0.02	SM 3120	07-May-18/O	24.9	22.6		
Magnesium	mg/L	0.02	SM 3120	07-May-18/O	7.89	6.50		
Sodium	mg/L	0.2	SM 3120	07-May-18/O	18.1	6.5	33.8	24.1
Potassium	mg/L	0.1	SM 3120	07-May-18/O	2.2	0.8		
Aluminum (total)	mg/L	0.01	SM 3120	07-May-18/O	1.24	0.41		
Aluminum	mg/L	0.01	SM 3120	08-May-18/O	0.14	0.15		
Barium	mg/L	0.001	SM 3120	07-May-18/O	0.037	0.028		
Beryllium	mg/L	0.002	SM 3120	07-May-18/O	< 0.002	< 0.002		
Boron	mg/L	0.005	SM 3120	07-May-18/O	0.013	0.009	0.052	0.030
Cadmium	mg/L	).000015	EPA 200.8	03-May-18/O	0.000045	< 0.000015		
Chromium	mg/L	0.001	EPA 200.8	03-May-18/O	0.004	< 0.001		
Cobalt	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0008	0.0002		
Copper	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0033	0.0011		
Iron	mg/L	0.005	SM 3120	07-May-18/O	1.46	0.793	1.89	2.15
Lead	mg/L	0.00002	EPA 200.8	03-May-18/O	0.00083	0.00022		
Manganese	mg/L	0.001	SM 3120	07-May-18/O	0.068	0.055	0.048	0.049
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O	< 0.00002	< 0.00002		
Molybdenum	mg/L	0.0001	EPA 200.8	03-May-18/O	< 0.0001	< 0.0001		
Nickel	mg/L	0.0002	EPA 200.8	03-May-18/O	0.0027	0.0010		
Silicon	mg/L	0.01	SM 3120	07-May-18/O	5.01	3.78		
Silver	mg/L	0.00002	EPA 200.8	03-May-18/O	< 0.00002	< 0.00002		

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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Final Report

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-17	GS-6	GS-20	GS-21
			Sample I.D.		B18-11653-5	B18-11653-6	B18-11653-7	B18-11653-8
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	07-May-18/O	0.116	0.094		
Sulphur	mg/L	0.1	SM 3120	07-May-18/O	2.0	2.1		
Thallium	mg/L	0.00005	EPA 200.8	03-May-18/O	0.00022	0.00021		
Titanium	mg/L	0.005	SM 3120	07-May-18/O	0.049	0.011		
Vanadium	mg/L	0.0001	EPA 200.8	03-May-18/O	0.0039	0.0012		
Zinc	mg/L	0.005	SM 3120	07-May-18/O	0.042	0.042		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	07-May-18/K	0.03	0.04	0.04	0.03
Ammonia (N)-unionized	mg/L	0.01	CALC	07-May-18/K	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K	0.7	0.5		
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.19	0.05	0.13	0.11
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O	< 0.001	< 0.001		
BOD	mg/L	3	SM 5210B	03-May-18/O	< 3	< 3		
COD	mg/L	5	SM 5220D	07-May-18/O	82	90		
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	05-May-18/O	13.9	13.2	10.1	9.4
TDS(ion sum calc.)	mg/L	1	Calc.	08-May-18/O	127	85	192	159
Anion Sum	meq/L		Calc.	08-May-18/O	2.22	1.55		
Cation Sum	meq/L		Calc.	08-May-18/O	2.82	2.01		
% Difference	%		Calc.	08-May-18/O	11.9 [1]	13.0 [1]		
Ion Ratio	AS/CS		Calc.	08-May-18/O	0.787	0.771		
Sodium Adsorption Ratio	-		Calc.	08-May-18/O	0.809	0.311		
Conductivity (calc.)	µmho/cm		Calc.	08-May-18/O	259	176		

1 Outside of 10% Acceptance Criteria, solids present

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-22	GS-11	GS-12	GS-15
			Sample I.D.		B18-11653-9	B18-11653-10	B18-11653-11	B18-11653-12
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	07-May-18/O	117	506	292	286
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	04-May-18/O	82	631	300	306
Chloride	mg/L	0.5	SM4110C	02-May-18/O	27.1	162	82.9	84.5
Nitrite (N)	mg/L	0.05	SM4110C	02-May-18/O		< 0.05	< 0.05	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	02-May-18/O		3.94	0.35	0.36
Sulphate	mg/L	1	SM4110C	02-May-18/O		37	29	30
Calcium	mg/L	0.02	SM 3120	07-May-18/O		130	70.4	69.4
Magnesium	mg/L	0.02	SM 3120	07-May-18/O		44.0	28.2	27.4
Sodium	mg/L	0.2	SM 3120	07-May-18/O	25.0	140	63.0	61.5
Potassium	mg/L	0.1	SM 3120	07-May-18/O		31.8	11.3	11.0
Aluminum (total)	mg/L	0.01	SM 3120	07-May-18/O		0.11	0.06	0.06
Aluminum	mg/L	0.01	SM 3120	08-May-18/O		0.08	0.05	0.05
Barium	mg/L	0.001	SM 3120	07-May-18/O		0.138	0.024	0.037
Beryllium	mg/L	0.002	SM 3120	07-May-18/O		< 0.002	< 0.002	< 0.002
Boron	mg/L	0.005	SM 3120	07-May-18/O	0.031	2.25	0.750	0.729
Cadmium	mg/L	).000015	EPA 200.8	03-May-18/O		0.000020	< 0.000015	< 0.000015
Chromium	mg/L	0.001	EPA 200.8	03-May-18/O		0.003	0.001	0.001
Cobalt	mg/L	0.0001	EPA 200.8	03-May-18/O		0.0023	0.0006	0.0006
Copper	mg/L	0.0001	EPA 200.8	03-May-18/O		0.0062	0.0012	0.0011
Iron	mg/L	0.005	SM 3120	07-May-18/O	2.32	0.400	0.087	0.086
Lead	mg/L	0.00002	EPA 200.8	03-May-18/O		0.00007	0.00002	0.00003
Manganese	mg/L	0.001	SM 3120	07-May-18/O	0.053	0.457	0.164	0.202
Mercury	mg/L	0.00002	SM 3112 B	09-May-18/O		< 0.00002	< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	03-May-18/O		0.0005	< 0.0001	< 0.0001
Nickel	mg/L	0.0002	EPA 200.8	03-May-18/O		0.0109	0.0058	0.0056
Silicon	mg/L	0.01	SM 3120	07-May-18/O		4.27	1.36	1.33
Silver	mg/L	0.00002	EPA 200.8	03-May-18/O		< 0.00002	< 0.00002	< 0.00002

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Lab Manager - Ottawa District

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DATE RECEIVED: 02-May-18
DATE REPORTED: 09-May-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-22	GS-11	GS-12	GS-15
			Sample I.D.		B18-11653-9	B18-11653-10	B18-11653-11	B18-11653-12
			Date Collected		30-Apr-18	30-Apr-18	30-Apr-18	30-Apr-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	07-May-18/O		0.854	0.433	0.430
Sulphur	mg/L	0.1	SM 3120	07-May-18/O		12.1	9.3	9.1
Thallium	mg/L	0.00005	EPA 200.8	03-May-18/O		0.00020	0.00020	0.00021
Titanium	mg/L	0.005	SM 3120	07-May-18/O		< 0.005	< 0.005	< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	03-May-18/O		0.0023	0.0011	0.0012
Zinc	mg/L	0.005	SM 3120	07-May-18/O		< 0.005	0.005	0.006
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	07-May-18/K	0.03	17.2	3.22	3.41
Ammonia (N)-unionized	mg/L	0.01	CALC	07-May-18/K	< 0.01	1.39	0.38	0.42
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	07-May-18/K		22.5	5.1	5.4
Phosphorus-Total	mg/L	0.01	E3199A.1	07-May-18/K	0.11	0.05	0.07	0.07
Phenolics	mg/L	0.001	MOEE 3179	09-May-18/O		< 0.001	< 0.001	< 0.001
BOD	mg/L	3	SM 5210B	03-May-18/O		< 3	< 3	< 3
COD	mg/L	5	SM 5220D	07-May-18/O		166	90	100
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	05-May-18/O	9.1	24.6	17.0	17.5
TDS(ion sum calc.)	mg/L	1	Calc.	08-May-18/O	161	947	469	472
Anion Sum	meq/L		Calc.	08-May-18/O		18.2	8.96	9.14
Cation Sum	meq/L		Calc.	08-May-18/O		18.3	9.10	8.93
% Difference	%		Calc.	08-May-18/O		0.0565	0.763	1.20
Ion Ratio	AS/CS		Calc.	08-May-18/O		0.999	0.985	1.02
Sodium Adsorption Ratio	-		Calc.	08-May-18/O		2.71	1.60	1.58
Conductivity (calc.)	µmho/cm		Calc.	08-May-18/O		1630	860	861

1 . Outside of 10% Acceptance Criteria, solids present

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

CADUCEON ENVIRONMENTAL LABORATORIES
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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table _____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [ ] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: _____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: _____
- [x] Landfill Monitoring
- [x] Other: ODWS

REPORT NUMBER (Lab Use): Aug 22.18 B18-25306

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: Jp2g
Contact: Perry Larochelle
Tel: 613-281-0253
Fax:
Email: perryl@jp2g.com

Address and Invoicing Address (if different): 12 International Drive, Pembroke, ON K8A 6W5
Quote No.: L16_Clarence Rockland
Project Name:
P.O. No.: Job # 17-6021B
Additional Info:

ANALYSES REQUESTED (Print Test in Boxes): Item #1, Item #2, Item #3, Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)
- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: _____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Item #1	Item #2	Item #3		✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
1	26-94		GW	18-08-21	8:00AM		X		1		7.7	12.8	7	
2	P4-90		"	" "	8:15AM		X		2		7.0	11.4	7	
3	G8C		"	" "	8:45AM	X			3		6.9	12.3	4	
4	29-97		"	" "	9:00AM		X		4		6.6	9.2	7	
5	38-03		"	" "	9:30AM	X			5		6.6	13.1	4	
6	P2-90 ?		"	" "	10:00AM	X			6		7.1	10.2	4	
7	36-01		"	" "	10:15AM	X			7		6.9	13.6	4	
8	37-01		"	" "	10:30AM		X		8		7.1	10.0	7	
9	~~20-44~~ 43-11		"	" "	11:00AM		X		9		7.4	10.1	7	
10	42-10		"	" "	11:15AM		X		10		6.9	11.8	7	
11	39-07		"	" "	11:30AM			X	11		6.9	20.7	4	
12	40-07		"	" "	11:45AM			X	12		6.9	16.4	4	

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	TANNER RODERICK	
Sign:	Tanner Roderick	18-08-22
		8:00AM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION
- Client's Courier [x]
- Caduceon's Courier [ ]
- Drop Off [ ]
- Caduceon (Pick-up) [ ]
- Invoice [ ]
- # of Pieces: 3

REPORTING / INVOICING
- Report by Fax [ ]
- Report by Email [x]
- Invoice by Email [x]
- Invoice by Mail [ ]

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)
- Received By (print): JOH — Signature: JB
- Date Received (yy-mm-dd): 22/08/18 — Time Received: 16:30
- Laboratory Prepared Bottles: [x] Yes [ ] No
- Sample Temperature °C: 10/12
- Labeled by:

Comments:

13R, 12PET, 36N/P, 25M, 12Hg, 12pH, 25DOC, 8VOC

Page 1 of 3
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White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

CofC, Jan. 2017, Revision No: 20

CADUCEON ENVIRONMENTAL LABORATORIES
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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table ____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [ ] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: ____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: ____
- [x] Landfill Monitoring
- [x] Other: ODWS

REPORT NUMBER (Lab Use): B18-25306

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: JpZg	Address and Invoicing Address (if different): 12 International Drive Pembroke, ON K8A 6W5
Contact: Perry Larochelle	
Tel: 613-281-0253	
Fax:	Quote No.: L16_clarenceRockland — Project Name:
Email: perryl@jpzg.com	P.O. No.: Job # 17-60218 — Additional Info:

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Item #1	Item #2	Item #3	Item #4		Suspected Highly Contaminated	✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
13	28-97		GW	18-08-21	12:15PM			X		13			7.0	17.7	4	
14	31-98S(A)		〃	〃	12:30PM			X		14			9.0	9.2	4	
15	G45		〃	〃	12:45PM			X		15			8.9	9.0	4	
16	12-92		〃	〃	1:45PM		X			16			7.3	14.4	7	
17	21-94		〃	〃	2:15PM			X		17			7.1	15.6	4	
18	17-92		〃	〃	2:30PM			X		18			6.9	16.4	4	
19	18-92		〃	〃	2:45PM		X			19			6.8	16.4	7	
20	G46		〃	〃	3:15PM		X			20			6.9	16.4	7	
21	13-92		〃	〃	3:30PM			X		21			7.2	13.1	4	
22	27-97		〃	〃	4:00PM			X		22			7.2	16.1	4	
23	P6-91		〃	〃	4:15PM		X		X	23			6.8	14.3	9 6 4 2	
24	P1-91		〃	〃	4:30PM		X		X	24			6.7	12.9	9 7 4 2	

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	TANNER RODERICK	
Sign:	Tanner Roderick	18-08-22
		8:00AM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [x] Client's Courier
- [ ] Caduceon's Courier
- [ ] Drop Off
- [ ] Caduceon (Pick-up)
- Invoice [ ]
- # of Pieces: 3

REPORTING / INVOICING

- [ ] Report by Fax
- [x] Report by Email
- [x] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

- Received By (print): JDL — Signature: JB
- Date Received (yy-mm-dd): 22/08/18 — Time Received: 16:30
- Laboratory Prepared Bottles: [x] Yes [ ] No
- Sample Temperature °C: 10.2
- Labeled by:

Comments:

Page 2 of 3

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CADUCEON ENVIRONMENTAL LABORATORIES
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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table ____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [ ] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: ____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: ____
- [x] Landfill Monitoring
- [x] Other: ODWS

REPORT NUMBER (Lab Use)

B18-25306

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: Jpzg	Address and Invoicing Address (if different): 12 International Drive, Pembroke, ON K8A 6W5
Contact: Perry Larochelle	
Tel: 613-281-0253	
Fax:	Quote No.: L116_ClarenceRockland — Project Name:
Email: perryl@jpzg.com	P.O. No.: 17-60218 — Additional Info:

ANALYSES REQUESTED (Print Test in Boxes)

Item #1 | Item #2 | Item #3 | Item #4 | Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [ ] Standard — 5-7 days
- [ ] Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided	✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
25	PSB-91		GW	18-08-21	5:30PM	Item #2: X; Item #4: X; 25		6.7	14.8	9	~~Y~~ 2VOC
26	Trip Blank					Item #4: X; 26					2VOC

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	TANNER RODERICK	
Sign:	Tanner Roderick	
	Date (yy-mm-dd)/Time:	18-08-22 8:00AM Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [x] Client's Courier — Invoice [ ]
- [ ] Caduceon's Courier
- [ ] Drop Off — # of Pieces: 3
- [ ] Caduceon (Pick-up)

REPORTING / INVOICING

- [ ] Report by Fax
- [x] Report by Email
- [x] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): JOH Signature: JB
Date Received (yy-mm-dd): 22/08/18 Time Received: 16:30
Laboratory Prepared Bottles: [x] Yes [ ] No
Sample Temperature °C: 10.2 Labeled by:

Comments:

Page 3 of 3
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ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

QUOTATION FOR ANALYTICAL SERVICES

Quote # :	**L16_ClarenceRockland**
Organization:	**JP2G**
Contact:	Perry Larochelle
Telephone:	613-735-2507
Facsimile:	613-735-4513
Email:	perryl@jp2g.com
Project #:	**Clarence-Rockland Landfill - 2166270A**
Address:	12 International Drive, Pembroke ON K8A 6W5
Additional Info:	QUOTE # ('S) MUST BE ON C OF C TO APPLY if not listed, General pricing will be applied.
Additional Info:	**Laboratory detection limit should be to ODWS or PWQO - whichever is lowest**
Date:	31-Mar-16 **Valid Until:** 31-Dec-19

Item #	Quantity	Analysis Request	Matrix	Unit Cost, $	Amount, $
		Spring, Summer & Fall Sampling			
1 3, 5, 6, 7, 11, 12, 13	10	**General Chemistry:** Alkalinity, Cl, DOC, TDS, **Nutrients:** NH3, TP, PO4 **Metals:** B, Na, Fe, Mn, Co + Hardness	GW	70.00	700.00
2	12	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, TP/TKN, PO4 **Metals:** Ag, Al, B, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Ti, Tl, V, Zn + Hardness	GW	100.00	1200.00
3 11, 12, 13, 14, 15, 17, 18, 21, 22	28	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, TP, PO4 **Metals:** B, Fe, Mn, Na + Hardness	GW	70.00	1960.00
4	8	**VOC** (624 Scan)	GW	40.00	320.00
5	7	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, U-NH3, TP **Metals:** B, Fe, Mn, Na + Hardness	SW	70.00	490.00
6	18	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, U-NH3, TP/TKN **Metals:** Ag, Al **(total & dissolved)**, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Tl, Ti, V, Zn + Hardness	SW	100.00	1800.00

Prices do not include shipping unless otherwise stated.
Environmental disposal fees included in pricing

Subtotal	6,470.00
HST	841.10
Total Cost	7,311.10

Rebecca Marshall
Customer Service Representative
Caduceon Environmental Laboratories
613-526-0123

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		26-94	P4-90	G8C	29-97
			Sample I.D.		B18-25306-1	B18-25306-2	B18-25306-3	B18-25306-4
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	23	252	279	556
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	26	231	249	487
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	47	262	280	594
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	3.2	4.5	4.6	15.7
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05	< 0.05		< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O	0.39	< 0.05		0.77
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	10	22		41
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O	6.02	69.5		153
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O	1.97	19.1		42.3
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	8.6	7.4	5.9	43.3
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O	1.0	1.6		2.5
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O	0.01	0.05		0.07
Barium	mg/L	0.001	SM 3120	24-Aug-18/O	0.007	0.044		0.091
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0001		< 0.0001
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	0.009	0.054	0.030	0.075
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O	< 0.000015	0.000021		0.000179
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O	< 0.001	0.003		< 0.001
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	0.0004	0.0002	0.0074
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0011	0.0011		0.0067
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	0.006	< 0.005	< 0.005	0.005
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O	0.00008	< 0.00002		< 0.00002
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	0.005	0.018	0.001	3.83
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O	< 0.00002	< 0.00002		< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	0.0002		0.0004
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O	< 0.01	< 0.01		0.01
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O	4.70	4.18		6.82
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0001		< 0.0001

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		26-94	P4-90	G8C	29-97
			Sample I.D.		B18-25306-1	B18-25306-2	B18-25306-3	B18-25306-4
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O	0.067	0.402		0.876
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O	3.3	7.8		19.0
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O	< 0.00005	< 0.00005		< 0.00005
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O	< 0.005	< 0.005		< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0002	0.0009		0.0014
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O	< 0.005	0.016		0.006
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K	0.2	0.3		1.7
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	0.02	< 0.01	< 0.01	0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	0.48	0.79	0.50	16.5
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	0.027	0.019		0.018
BOD	mg/L	3	SM 5210B	23-Aug-18/O	< 3	< 3		< 3
COD	mg/L	5	SM 5220D	27-Aug-18/O	10	24		124
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	2.3	2.8	3.2	16.1
Anion Sum	meq/L		Calc.	29-Aug-18/O	0.851	5.19		11.1
Cation Sum	meq/L		Calc.	29-Aug-18/O	0.863	5.40		13.2
% Difference	%		Calc.	29-Aug-18/O	0.713	1.99		8.77
Ion Ratio	AS/CS		Calc.	29-Aug-18/O	0.986	0.961		0.839
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O	0.782	0.204		0.799
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O	89.5	490		1040

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		38-03	P2-90	36-01	37-01
			Sample I.D.		B18-25306-5	B18-25306-6	B18-25306-7	B18-25306-8
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	387	10	254	182
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	355	93	225	30
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	470	106	371	623
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	17.9	1.5	37.8	335
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O				< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O				4.20
Sulphate	mg/L	1	SM4110C	23-Aug-18/O				41
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O				45.2
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O				16.7
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	24.8	43.1	41.1	166
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O				1.1
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O				0.04
Barium	mg/L	0.001	SM 3120	24-Aug-18/O				0.106
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	0.112	< 0.005	0.058	0.008
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O				0.000137
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O				0.001
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0055	< 0.0001	0.0010	0.0003
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O				0.0009
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	36.3	0.022	0.005	< 0.005
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O				< 0.00002
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	3.99	0.001	1.99	0.033
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O				< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O				< 0.01
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O				4.24
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		38-03	P2-90	36-01	37-01
			Sample I.D.		B18-25306-5	B18-25306-6	B18-25306-7	B18-25306-8
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O				0.545
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O				13.0
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O				< 0.00005
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O				< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O				0.0001
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O				0.008
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	0.27	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K				0.3
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	< 0.01	0.04	< 0.01	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	0.66	2.60	0.06	0.07
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K				0.002
BOD	mg/L	3	SM 5210B	23-Aug-18/O				< 3
COD	mg/L	5	SM 5220D	27-Aug-18/O				11
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	11.9	3.4	15.7	0.6
Anion Sum	meq/L		Calc.	29-Aug-18/O				11.2
Cation Sum	meq/L		Calc.	29-Aug-18/O				10.9
% Difference	%		Calc.	29-Aug-18/O				1.53
Ion Ratio	AS/CS		Calc.	29-Aug-18/O				1.03
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O				5.36
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O				1220

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		43-11	42-10	39-07	40-07
			Sample I.D.		B18-25306-9	B18-25306-10	B18-25306-11	B18-25306-12
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	177	289	272	262
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	336	307	334	296
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	410	698	493	462
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	35.8	226	93.4	95.1
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05	< 0.05		
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O	0.14	< 0.05		
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	2	8		
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O	42.8	63.0		
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O	17.1	32.1		
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	98.6	170	77.4	89.9
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O	7.4	7.0		
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O	0.07	0.10		
Barium	mg/L	0.001	SM 3120	24-Aug-18/O	0.028	0.043		
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0001		
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	0.419	0.298	0.973	0.878
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O	< 0.000015	< 0.000015		
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O	0.001	0.002		
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0006	0.0014		
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0005	0.0011		
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	1.53	5.00	4.13	1.83
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O	0.00011	0.00026		
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	0.172	0.772	0.410	0.657
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O	< 0.00002	< 0.00002		
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0003	0.0008		
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O	< 0.01	< 0.01		
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O	8.51	8.44		
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0001		

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		43-11	42-10	39-07	40-07
			Sample I.D.		B18-25306-9	B18-25306-10	B18-25306-11	B18-25306-12
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O	0.198	0.267		
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O	1.6	5.3		
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O	< 0.00005	< 0.00005		
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O	< 0.005	0.006		
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0019	0.0034		
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O	< 0.005	0.011		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	2.35	1.72	1.90	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K	28.4	4.5		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	0.03	0.01	< 0.01	0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	28.5	0.24	0.73	0.15
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	0.012	0.012		
BOD	mg/L	3	SM 5210B	23-Aug-18/O	< 3	< 3		
COD	mg/L	5	SM 5220D	27-Aug-18/O	1110	605		
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	42.0	20.3	21.0	20.4
Anion Sum	meq/L		Calc.	29-Aug-18/O	7.77	12.7		
Cation Sum	meq/L		Calc.	29-Aug-18/O	8.27	13.8		
% Difference	%		Calc.	29-Aug-18/O	3.14	4.18		
Ion Ratio	AS/CS		Calc.	29-Aug-18/O	0.939	0.920		
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O	3.22	4.35		
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O	727	1290		

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Lab Manager - Ottawa District

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JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		28-97	31-98s(A)	G45	12-92
			Sample I.D.		B18-25306-13	B18-25306-14	B18-25306-15	B18-25306-16
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	296	10	10	237
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	391	408	411	231
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	710	594	598	310
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	110	87.7	87.8	36.8
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O				< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O				0.08
Sulphate	mg/L	1	SM4110C	23-Aug-18/O				23
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O	60.9			54.1
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O	34.9			24.8
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	165	252	254	28.4
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O				3.8
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O				0.03
Barium	mg/L	0.001	SM 3120	24-Aug-18/O				0.023
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	3.15	0.902	0.904	0.030
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O				< 0.000015
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O				< 0.001
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O				0.0010
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	0.076	0.039	0.035	< 0.005
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O				0.00004
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	0.119	0.004	0.004	0.001
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O				< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O				0.0005
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O				< 0.01
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O				5.34
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O				< 0.0001

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		28-97	31-98s(A)	G45	12-92
			Sample I.D.		B18-25306-13	B18-25306-14	B18-25306-15	B18-25306-16
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O				0.179
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O				7.4
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O				< 0.00005
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O				< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O				0.0003
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O				< 0.005
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	< 0.01	0.55	0.56	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K				0.5
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	< 0.01	0.93	0.95	0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	0.03	23.3	23.6	0.25
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K				0.017
BOD	mg/L	3	SM 5210B	23-Aug-18/O				< 3
COD	mg/L	5	SM 5220D	27-Aug-18/O				15
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	44.5	8.4	9.2	2.4
Anion Sum	meq/L		Calc.	29-Aug-18/O				6.15
Cation Sum	meq/L		Calc.	29-Aug-18/O				6.07
% Difference	%		Calc.	29-Aug-18/O				0.630
Ion Ratio	AS/CS		Calc.	29-Aug-18/O				1.01
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O				0.802
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O				578

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Lab Manager - Ottawa District

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P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		21-94	17-92	18-92	G46
			Sample I.D.		B18-25306-17	B18-25306-18	B18-25306-19	B18-25306-20
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	748	298	293	298
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	99	267	233	223
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	1827	328	336	333
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	1070	12.9	12.0	12.6
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O			< 0.05	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O			1.21	1.38
Sulphate	mg/L	1	SM4110C	23-Aug-18/O			64	63
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O			84.2	85.6
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O			20.0	20.5
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	389	15.0	10.3	10.9
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O			5.9	5.8
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O			0.05	0.05
Barium	mg/L	0.001	SM 3120	24-Aug-18/O			0.058	0.057
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O			< 0.0001	< 0.0001
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	0.008	0.031	0.260	0.259
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O			< 0.000015	< 0.000015
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O			< 0.001	< 0.001
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0003	0.0004
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0011	0.0007
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	0.070	1.26	0.051	0.062
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O			0.00004	< 0.00002
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	0.154	0.201	0.044	0.079
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O			< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O			< 0.0001	< 0.0001
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O			< 0.01	< 0.01
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O			7.39	7.51
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O			< 0.0001	< 0.0001

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		21-94	17-92	18-92	G46
			Sample I.D.		B18-25306-17	B18-25306-18	B18-25306-19	B18-25306-20
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O			0.427	0.432
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O			21.8	23.4
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O			< 0.00005	< 0.00005
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O			< 0.005	< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0003	0.0003
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O			< 0.005	< 0.005
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	< 0.01	0.03	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K			1.4	1.5
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	< 0.01	< 0.01	< 0.01	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	0.33	0.68	0.89	1.00
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K			< 0.01	< 0.01
BOD	mg/L	3	SM 5210B	23-Aug-18/O			< 3	< 3
COD	mg/L	5	SM 5220D	27-Aug-18/O			51	44
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	0.3	6.3	5.5	8.1
Anion Sum	meq/L		Calc.	29-Aug-18/O			6.41	6.22
Cation Sum	meq/L		Calc.	29-Aug-18/O			6.45	6.59
% Difference	%		Calc.	29-Aug-18/O			0.307	2.84
Ion Ratio	AS/CS		Calc.	29-Aug-18/O			0.994	0.945
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O			0.262	0.275
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O			602	601

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

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Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		13-92	27-97	P6-91	P1-91
			Sample I.D.		B18-25306-21	B18-25306-22	B18-25306-23	B18-25306-24
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	325	756	1340	1120
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	313	556	2310	1290
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	368	1040	3124	1650
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	11.9	136	492	219
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O			< 0.5	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O			< 0.5	< 0.05
Sulphate	mg/L	1	SM4110C	23-Aug-18/O			< 10	6
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O			363	278
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O			106	103
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	23.9	98.1	484	229
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O			105	14.5
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O			0.15	0.12
Barium	mg/L	0.001	SM 3120	24-Aug-18/O			0.939	0.218
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0002	< 0.0001
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	0.135	0.902	5.23	1.44
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O			< 0.000059	< 0.000015
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O			0.016	0.004
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0079	0.0019
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O			< 0.0003	0.0001
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	0.160	0.589	6.52	22.8
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O			< 0.0002	< 0.00002
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	0.096	0.282	10.9	3.97
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O			< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0005	0.0001
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O			0.02	0.01
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O			11.5	10.8
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O			< 0.0002	< 0.0001

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
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Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		13-92	27-97	P6-91	P1-91
			Sample I.D.		B18-25306-21	B18-25306-22	B18-25306-23	B18-25306-24
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	21-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O			2.21	1.45
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O			9.9	10.4
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O			< 0.00005	< 0.00005
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O			0.012	< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O			0.0402	0.0086
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O			0.005	< 0.005
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	< 0.01	0.03	133	1.03
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K			183	6.1
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	< 0.01	< 0.01	< 0.01	< 0.01
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	0.15	0.10	0.29	0.19
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K			0.027	0.011
BOD	mg/L	3	SM 5210B	23-Aug-18/O			16	6
COD	mg/L	5	SM 5220D	27-Aug-18/O			490	201
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	5.0	17.9	19.7	64.2
Anion Sum	meq/L		Calc.	29-Aug-18/O			60.0	32.0
Cation Sum	meq/L		Calc.	29-Aug-18/O			60.7	34.1
% Difference	%		Calc.	29-Aug-18/O			0.586	3.18
Ion Ratio	AS/CS		Calc.	29-Aug-18/O			0.988	0.938
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O			5.75	2.98
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O			4600	2540

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (i)**

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1150 Morrison Dr.,
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DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91			
			Sample I.D.		B18-25306-25			
			Date Collected		21-Aug-18			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	24-Aug-18/O	853			
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	1470			
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	1599			
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	11.2			
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05			
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05			
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	2			
Calcium	mg/L	0.02	SM 3120	24-Aug-18/O	258			
Magnesium	mg/L	0.02	SM 3120	24-Aug-18/O	50.6			
Sodium	mg/L	0.2	SM 3120	24-Aug-18/O	153			
Potassium	mg/L	0.1	SM 3120	24-Aug-18/O	86.0			
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O	0.12			
Barium	mg/L	0.001	SM 3120	24-Aug-18/O	0.515			
Beryllium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001			
Boron	mg/L	0.005	SM 3120	24-Aug-18/O	1.77			
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O	< 0.000015			
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O	0.003			
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0044			
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0003			
Iron	mg/L	0.005	SM 3120	24-Aug-18/O	57.2			
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O	0.00004			
Manganese	mg/L	0.001	SM 3120	24-Aug-18/O	5.20			
Mercury	mg/L	0.00002	SM 3112 B	30-Aug-18/O	< 0.00002			
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0004			
Nickel	mg/L	0.01	SM 3120	24-Aug-18/O	< 0.01			
Silicon	mg/L	0.01	SM 3120	24-Aug-18/O	11.0			
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001			

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P5B-91			
			Sample I.D.		B18-25306-25			
			Date Collected		21-Aug-18			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Strontium	mg/L	0.001	SM 3120	24-Aug-18/O	1.43			
Sulphur	mg/L	0.1	SM 3120	24-Aug-18/O	11.4			
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O	< 0.00005			
Titanium	mg/L	0.005	SM 3120	24-Aug-18/O	< 0.005			
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0093			
Zinc	mg/L	0.005	SM 3120	24-Aug-18/O	0.009			
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Aug-18/O	74.1			
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	29-Aug-18/K	124			
o-Phosphate (P)	mg/L	0.01	MOEE 3366	29-Aug-18/O	< 0.01			
Phosphorus-Total	mg/L	0.01	E3199A.1	29-Aug-18/K	20.6			
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	0.020			
BOD	mg/L	3	SM 5210B	23-Aug-18/O	6			
COD	mg/L	5	SM 5220D	27-Aug-18/O	294			
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	56.0			
Anion Sum	meq/L		Calc.	29-Aug-18/O	29.7			
Cation Sum	meq/L		Calc.	29-Aug-18/O	34.4			
% Difference	%		Calc.	29-Aug-18/O	7.33			
Ion Ratio	AS/CS		Calc.	29-Aug-18/O	0.863			
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O	2.28			
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O	2410			

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (ii)**

Report To:

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Tel: 613-526-0123
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DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P6-91	P1-91	P5B-91	Trip Blank
			Sample I.D.		B18-25306-23	B18-25306-24	B18-25306-25	B18-25306-26
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Acetone	µg/L	2	EPA 8260	23-Aug-18/O	6	5	13	< 2
Benzene	µg/L	0.5	EPA 8260	23-Aug-18/O	< 0.5	1.2	1.2	< 0.5
Bromodichloromethane	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Bromoform	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Bromomethane	µg/L	0.3	EPA 8260	23-Aug-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Carbon Tetrachloride	µg/L	0.2	EPA 8260	23-Aug-18/O	< 0.2	< 0.2	< 0.2	< 0.2
Monochlorobenzene (Chlorobenzene)	µg/L	0.2	EPA 8260	23-Aug-18/O	1.3	0.2	0.3	< 0.2
Chloroform	µg/L	0.3	EPA 8260	23-Aug-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Dibromochloromethane	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dibromoethane,1,2- (Ethylene Dibromide)	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,3-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichlorobenzene,1,4-	µg/L	0.2	EPA 8260	23-Aug-18/O	0.2	< 0.2	0.4	< 0.2
Dichlorodifluoromethane	µg/L	1	EPA 8260	23-Aug-18/O	< 1	< 1	< 1	< 1
Dichloroethane,1,1-	µg/L	0.1	EPA 8260	23-Aug-18/O	0.2	0.2	0.1	< 0.1
Dichloroethane,1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	1.2	< 0.1	< 0.1	< 0.1
Dichloroethene, 1,1-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloroethene, cis-1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloroethene, trans-1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropane,1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene, cis-1,3-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene, trans-1,3-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Dichloropropene 1,3- cis+trans	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	µg/L	0.5	EPA 8260	23-Aug-18/O	< 0.5	< 0.5	< 0.5	< 0.5

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71712, 71713, 71711 **REPORT No. B18-25306 (ii)**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		P6-91	P1-91	P5B-91	Trip Blank
			Sample I.D.		B18-25306-23	B18-25306-24	B18-25306-25	B18-25306-26
			Date Collected		21-Aug-18	21-Aug-18	21-Aug-18	
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Hexane	µg/L	1	EPA 8260	23-Aug-18/O	< 1	< 1	< 1	< 1
Dichloromethane (Methylene Chloride)	µg/L	0.3	EPA 8260	23-Aug-18/O	< 0.3	< 0.3	< 0.3	< 0.3
Methyl Ethyl Ketone	µg/L	1	EPA 8260	23-Aug-18/O	< 1	< 1	1	< 1
Methyl Isobutyl Ketone	µg/L	1	EPA 8260	23-Aug-18/O	< 1	< 1	< 1	< 1
Methyl-t-butyl Ether	µg/L	1	EPA 8260	23-Aug-18/O	1	< 1	< 1	< 1
Styrene	µg/L	0.5	EPA 8260	23-Aug-18/O	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethane,1,1,1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethane,1,1,2,2-	µg/L	0.4	EPA 8260	23-Aug-18/O	< 0.4	< 0.4	< 0.4	< 0.4
Tetrachloroethylene	µg/L	0.2	EPA 8260	23-Aug-18/O	< 0.2	< 0.2	< 0.2	< 0.2
Toluene	µg/L	0.5	EPA 8260	23-Aug-18/O	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethane,1,1,1-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichloroethane,1,1,2-	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichloroethylene	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	µg/L	0.1	EPA 8260	23-Aug-18/O	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl Chloride	µg/L	0.2	EPA 8260	23-Aug-18/O	< 0.2	0.3	< 0.2	< 0.2
Xylene, m,p-	µg/L	0.4	EPA 8260	23-Aug-18/O	1.2	< 0.4	< 0.4	< 0.4
Xylene, o-	µg/L	0.1	EPA 8260	23-Aug-18/O	0.6	< 0.1	< 0.1	< 0.1
Xylene, m,p,o-	µg/L	0.4	EPA 8260	23-Aug-18/O	1.8	< 0.4	< 0.4	< 0.4
Dichloroethane-d4,1,2-(SS)	%		EPA 8260	23-Aug-18/O	102	102	104	104
Toluene-d8 (SS)	%		EPA 8260	23-Aug-18/O	99.0	99.0	99.0	99.0
Bromofluorobenzene,4(SS)	%		EPA 8260	23-Aug-18/O	105	104	104	104

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table ____
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153)
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153)
- [x] Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: ____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: ____
- [x] Landfill Monitoring
- [ ] Other: ____

REPORT NUMBER (Lab Use): Aug 22.18 B18-25290

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: Jp2g

Address and Invoicing Address (if different): 12 International Drive Pembroke, ON K8A 6W5

Contact: Perry Larochelle

Tel: 613-281-0253

Fax:

Quote No.: L16-ClarenceRockland

Project Name:

Email: perryl@jp2g.com

P.O. No.: J06#17-60218

Additional Info:

ANALYSES REQUESTED (Print Test in Boxes)

Item #6 | Item #5 | Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Item #6	Item #5	✓	pH	Temp.	# Bottles/ Sample	Field Filtered(Y/N)
1	GS-8		SW	18-08-20	12:00PM	X		1	8.1	18.8	9	
2	S2		"	"	1:00PM	X		2	7.8	19.0	9	
3	S1		"	"	1:30PM		X	3	7.9	20.0	4	
4	GS-17		"	"	2:00PM	X		4	7.7	19.6	9	
5	GS-6		"	"	2:30PM	X		5	7.9	19.2	9	
6	GS-11		"	"	3:00PM	X		6	7.5	17.3	9	
7	GS-12		"	"	3:30PM	X		7	9.2	29.1	9	
8	GS-15		"	"	4:15PM	X		8	9.5	29.8	9	
9	GS-20		"	"	4:45PM		X	9	8.1	24.8	4	
10	GS-21		"	"	5:30PM		X	10	8.0	22.2	4	
11	GS-22		"	"	6:00PM		X	11	8.1	21.6	4	

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	TANNER RODERICK	
Sign:	Tanner Roderick	
	Date (yy-mm-dd)/Time:	18-08-22 8:00AM Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [x] Client's Courier
- [ ] Caduceon's Courier
- [ ] Drop Off
- [ ] Caduceon (Pick-up)

Invoice [ ]

# of Pieces: 1

REPORTING / INVOICING

- [ ] Report by Fax
- [x] Report by Email
- [x] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): JOH Signature: JB

Date Received (yy-mm-dd): 22/08/18 Time Received: 8:15

Laboratory Prepared Bottles: [x] Yes [ ] No

Sample Temperature °C: 17.7 Labeled by: J

Comments: LIR 7804 1150°C 1BM IONP 7419

Page 1 of 1

G 71714

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QUOTATION FOR ANALYTICAL SERVICES

Quote # :	L16_ClarenceRockland
Organization:	JP2G
Contact:	Perry Larochelle
Telephone:	613-735-2507
Facsimile:	613-735-4513
Email:	perryl@jp2g.com
Project #:	Clarence-Rockland Landfill - 2166270A
Address:	12 International Drive, Pembroke ON K8A 6W5
Additional Info:	QUOTE # ('S) MUST BE ON C OF C TO APPLY if not listed, General pricing will be applied.
Additional Info:	Laboratory detection limit should be to ODWS or PWQO - whichever is lowest
Date:	31-Mar-16 **Valid Until:** 31-Dec-19

Item #	Quantity	Analysis Request	Matrix	Unit Cost, $	Amount, $
Spring, Summer & Fall Sampling					
1	10	**General Chemistry:** Alkalinity, Cl, DOC, TDS, **Nutrients:** NH3, TP, PO4 **Metals:** B, Na, Fe, Mn, Co + Hardness	GW	70.00	700.00
2	12	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, TP/TKN, PO4 **Metals:** Ag, Al, B, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Ti, Tl, V, Zn + Hardness	GW	100.00	1200.00
3	28	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, TP, PO4 **Metals:** B, Fe, Mn, Na + Hardness	GW	70.00	1960.00
4	8	**VOC** (624 Scan)	GW	40.00	320.00
5	7 3,9,10,11	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, U-NH3, TP **Metals:** B, Fe, Mn, Na + Hardness	SW	70.00	490.00
6	18	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, U-NH3, TP/TKN **Metals:** Ag, Al **(total & dissolved)**, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Tl, Ti, V, Zn + Hardness	SW	100.00	1800.00

Prices do not include shipping unless otherwise stated.
Environmental disposal fees included in pricing

Subtotal	6,470.00
HST	841.10
Total Cost	7,311.10

Rebecca Marshall
Customer Service Representative
Caduceon Environmental Laboratories
613-526-0123

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71714 **REPORT No. B18-25290**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-8	S-2	S-1	GS-17
			Sample I.D.		B18-25290-1	B18-25290-2	B18-25290-3	B18-25290-4
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	20-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	28-Aug-18/O	159	155	115	130
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	153	148	131	220
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	250	242	229	477
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	49.1	48.9	54.0	147
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05	< 0.05		< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O	0.31	0.26		0.06
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	13	13		10
Calcium	mg/L	0.02	SM 3120	28-Aug-18/O	41.0	39.0		34.0
Magnesium	mg/L	0.02	SM 3120	28-Aug-18/O	11.1	10.1		8.82
Sodium	mg/L	0.2	SM 3120	28-Aug-18/O	39.9	38.9	41.7	139
Potassium	mg/L	0.1	SM 3120	28-Aug-18/O	2.5	2.2		4.3
Aluminum (total)	mg/L	0.01	SM 3120	28-Aug-18/O	0.52	0.47		1.54
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O	0.02	0.04		0.03
Barium	mg/L	0.001	SM 3120	28-Aug-18/O	0.029	0.030		0.042
Beryllium	mg/L	0.002	SM 3120	28-Aug-18/O	< 0.002	< 0.002		< 0.002
Boron	mg/L	0.005	SM 3120	28-Aug-18/O	0.046	0.042	0.043	0.185
Cadmium	mg/L	0.000015	EPA 200.8	23-Aug-18/O	0.000024	< 0.000015		0.000025
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O	0.002	< 0.001		0.006
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0005	0.0002		0.0012
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0024	0.0013		0.0040
Iron	mg/L	0.005	SM 3120	28-Aug-18/O	1.01	1.08	1.44	2.14
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O	0.00032	0.00003		0.00078
Manganese	mg/L	0.001	SM 3120	28-Aug-18/O	0.048	0.091	0.048	0.053
Mercury	mg/L	0.00002	SM 3112 B	29-Aug-18/O	< 0.00002	< 0.00002		< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0004	0.0004		0.0007
Nickel	mg/L	0.0002	EPA 200.8	23-Aug-18/O	0.0018	0.0009		0.0038
Silicon	mg/L	0.01	SM 3120	28-Aug-18/O	6.74	6.49		6.33

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71714 **REPORT No. B18-25290**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-8	S-2	S-1	GS-17
			Sample I.D.		B18-25290-1	B18-25290-2	B18-25290-3	B18-25290-4
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	20-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0001		< 0.0001
Strontium	mg/L	0.001	SM 3120	28-Aug-18/O	0.165	0.153		0.140
Sulphur	mg/L	0.1	SM 3120	28-Aug-18/O	4.7	4.3		3.6
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O	< 0.00005	< 0.00005		< 0.00005
Titanium	mg/L	0.005	SM 3120	28-Aug-18/O	0.031	0.029		0.095
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0034	0.0018		0.0074
Zinc	mg/L	0.005	SM 3120	28-Aug-18/O	0.015	0.028		0.019
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	28-Aug-18/K	0.04	0.05	0.05	0.03
Ammonia (N)-unionized	mg/L	0.01	CALC	28-Aug-18/K	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	27-Aug-18/K	0.5	0.5		0.5
Phosphorus-Total	mg/L	0.01	E3199A.1	27-Aug-18/K	0.09	0.09	0.10	0.23
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	< 0.002	0.002		0.002
BOD	mg/L	3	SM 5210B	23-Aug-18/O	< 3	< 3		< 3
COD	mg/L	5	SM 5220D	24-Aug-18/O	25	28		24
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	12.9	9.0	7.8	5.6
Anion Sum	meq/L		Calc.	29-Aug-18/O	4.74	4.61		8.75
Cation Sum	meq/L		Calc.	29-Aug-18/O	4.82	4.59		8.70
% Difference	%		Calc.	29-Aug-18/O	0.753	0.260		0.278
Ion Ratio	AS/CS		Calc.	29-Aug-18/O	0.985	1.01		1.01
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O	1.43	1.44		5.49
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O	473	457		877

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-6	GS-11	GS-12	GS-15
			Sample I.D.		B18-25290-5	B18-25290-6	B18-25290-7	B18-25290-8
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	20-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	28-Aug-18/O	115	636	168	160
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	101	609	176	169
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	139	1241	362	348
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	18.5	255	96.2	93.9
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O	< 0.05	0.18	< 0.05	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O	0.29	0.92	< 0.05	< 0.05
Sulphate	mg/L	1	SM4110C	23-Aug-18/O	9	155	24	23
Calcium	mg/L	0.02	SM 3120	28-Aug-18/O	29.5	149	17.4	15.7
Magnesium	mg/L	0.02	SM 3120	28-Aug-18/O	7.35	56.7	28.6	27.9
Sodium	mg/L	0.2	SM 3120	28-Aug-18/O	12.1	230	78.6	75.0
Potassium	mg/L	0.1	SM 3120	28-Aug-18/O	1.4	25.3	10.6	9.9
Aluminum (total)	mg/L	0.01	SM 3120	28-Aug-18/O	0.12	0.13	0.05	0.04
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O	0.03	0.08	0.03	0.03
Barium	mg/L	0.001	SM 3120	28-Aug-18/O	0.022	0.149	0.009	0.008
Beryllium	mg/L	0.002	SM 3120	28-Aug-18/O	< 0.002	< 0.002	< 0.002	< 0.002
Boron	mg/L	0.005	SM 3120	28-Aug-18/O	0.009	2.59	0.852	0.819
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O	0.000059	< 0.00014	< 0.00014	< 0.000015
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O	< 0.001	0.004	< 0.002	< 0.001
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0002	0.0035	< 0.001	0.0003
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0009	0.0042	0.0017	0.0003
Iron	mg/L	0.005	SM 3120	28-Aug-18/O	0.503	1.69	0.074	0.035
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O	0.00013	0.00021	0.00044	0.00005
Manganese	mg/L	0.001	SM 3120	28-Aug-18/O	0.024	1.21	0.109	0.116
Mercury	mg/L	0.00002	SM 3112 B	29-Aug-18/O	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0003	< 0.001	< 0.001	0.0002
Nickel	mg/L	0.0002	EPA 200.8	23-Aug-18/O	0.0008	0.0163	0.0054	0.0037
Silicon	mg/L	0.01	SM 3120	28-Aug-18/O	6.29	5.88	1.27	1.17

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit
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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G71714 **REPORT No. B18-25290**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-6	GS-11	GS-12	GS-15
			Sample I.D.		B18-25290-5	B18-25290-6	B18-25290-7	B18-25290-8
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	20-Aug-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O	< 0.0001	< 0.0002	< 0.0002	< 0.0001
Strontium	mg/L	0.001	SM 3120	28-Aug-18/O	0.096	1.08	0.216	0.203
Sulphur	mg/L	0.1	SM 3120	28-Aug-18/O	3.2	46.3	8.1	7.5
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O	< 0.00005	< 0.0005	< 0.0005	< 0.00005
Titanium	mg/L	0.005	SM 3120	28-Aug-18/O	0.006	0.008	< 0.005	< 0.005
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O	0.0018	0.0060	0.0027	0.0024
Zinc	mg/L	0.005	SM 3120	28-Aug-18/O	0.022	0.024	0.019	0.021
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	28-Aug-18/K	0.04	1.18	0.05	0.05
Ammonia (N)-unionized	mg/L	0.01	CALC	28-Aug-18/K	< 0.01	0.05	0.02	0.03
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	27-Aug-18/K	0.4	4.1	2.4	2.3
Phosphorus-Total	mg/L	0.01	E3199A.1	27-Aug-18/K	0.04	0.07	0.07	0.05
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K	0.002	0.015	0.004	0.003
BOD	mg/L	3	SM 5210B	23-Aug-18/O	< 3	10	5	4
COD	mg/L	5	SM 5220D	24-Aug-18/O	25	124	95	92
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	7.7	25.6	20.5	20.3
Anion Sum	meq/L		Calc.	29-Aug-18/O	2.76	22.7	6.74	6.52
Cation Sum	meq/L		Calc.	29-Aug-18/O	2.67	23.0	6.92	6.60
% Difference	%		Calc.	29-Aug-18/O	1.60	0.656	1.35	0.604
Ion Ratio	AS/CS		Calc.	29-Aug-18/O	1.03	0.987	0.973	0.988
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O	0.516	4.07	2.69	2.63
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O	270	2000	686	661

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-20	GS-21	GS-22	
			Sample I.D.		B18-25290-9	B18-25290-10	B18-25290-11	
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	28-Aug-18/O	128	114	117	
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	23-Aug-18/O	92	90	90	
TDS(ion sum calc.)	mg/L	1	Calc.	29-Aug-18/O	203	189	190	
Chloride	mg/L	0.5	SM4110C	23-Aug-18/O	36.1	33.3	33.5	
Nitrite (N)	mg/L	0.05	SM4110C	23-Aug-18/O				
Nitrate (N)	mg/L	0.05	SM4110C	23-Aug-18/O				
Sulphate	mg/L	1	SM4110C	23-Aug-18/O				
Calcium	mg/L	0.02	SM 3120	28-Aug-18/O				
Magnesium	mg/L	0.02	SM 3120	28-Aug-18/O				
Sodium	mg/L	0.2	SM 3120	28-Aug-18/O	30.0	27.2	27.5	
Potassium	mg/L	0.1	SM 3120	28-Aug-18/O				
Aluminum (total)	mg/L	0.01	SM 3120	28-Aug-18/O				
Aluminum	mg/L	0.01	SM 3120	24-Aug-18/O				
Barium	mg/L	0.001	SM 3120	28-Aug-18/O				
Beryllium	mg/L	0.002	SM 3120	28-Aug-18/O				
Boron	mg/L	0.005	SM 3120	28-Aug-18/O	0.085	0.056	0.056	
Cadmium	mg/L	).000015	EPA 200.8	23-Aug-18/O				
Chromium	mg/L	0.001	EPA 200.8	23-Aug-18/O				
Cobalt	mg/L	0.0001	EPA 200.8	23-Aug-18/O				
Copper	mg/L	0.0001	EPA 200.8	23-Aug-18/O				
Iron	mg/L	0.005	SM 3120	28-Aug-18/O	5.75	1.39	1.44	
Lead	mg/L	0.00002	EPA 200.8	23-Aug-18/O				
Manganese	mg/L	0.001	SM 3120	28-Aug-18/O	0.180	0.032	0.033	
Mercury	mg/L	0.00002	SM 3112 B	29-Aug-18/O				
Molybdenum	mg/L	0.0001	EPA 200.8	23-Aug-18/O				
Nickel	mg/L	0.0002	EPA 200.8	23-Aug-18/O				
Silicon	mg/L	0.01	SM 3120	28-Aug-18/O				

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Final Report

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Report To:

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Attention: Perry Larochelle

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2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 22-Aug-18
DATE REPORTED: 06-Sep-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-20	GS-21	GS-22	
			Sample I.D.		B18-25290-9	B18-25290-10	B18-25290-11	
			Date Collected		20-Aug-18	20-Aug-18	20-Aug-18	
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	23-Aug-18/O				
Strontium	mg/L	0.001	SM 3120	28-Aug-18/O				
Sulphur	mg/L	0.1	SM 3120	28-Aug-18/O				
Thallium	mg/L	0.00005	EPA 200.8	23-Aug-18/O				
Titanium	mg/L	0.005	SM 3120	28-Aug-18/O				
Vanadium	mg/L	0.0001	EPA 200.8	23-Aug-18/O				
Zinc	mg/L	0.005	SM 3120	28-Aug-18/O				
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	28-Aug-18/K	0.09	0.04	0.04	
Ammonia (N)-unionized	mg/L	0.01	CALC	28-Aug-18/K	< 0.01	< 0.01	< 0.01	
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	27-Aug-18/K				
Phosphorus-Total	mg/L	0.01	E3199A.1	27-Aug-18/K	0.23	0.07	0.07	
Phenolics	mg/L	0.002	MOEE 3179	27-Aug-18/K				
BOD	mg/L	3	SM 5210B	23-Aug-18/O				
COD	mg/L	5	SM 5220D	24-Aug-18/O				
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	23-Aug-18/O	7.3	5.9	6.1	
Anion Sum	meq/L		Calc.	29-Aug-18/O				
Cation Sum	meq/L		Calc.	29-Aug-18/O				
% Difference	%		Calc.	29-Aug-18/O				
Ion Ratio	AS/CS		Calc.	29-Aug-18/O				
Sodium Adsorption Ratio	-		Calc.	29-Aug-18/O				
Conductivity (calc.)	µmho/cm		Calc.	29-Aug-18/O				

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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TESTING REQUIREMENTS

- [ ] O.Reg 153 — Table ____ — [ ] Medium/Fine — [ ] Coarse — [ ] MISA Guidelines
- [ ] Surface Soil — [ ] Sub Surface Soil (O.Reg 153) — [ ] O.Reg 558 Leachate Analysis
- [ ] Yes [ ] No — Record of Site Condition (O.Reg 153) — Disposal Site: ____
- [x] Provincial Water Quality Objectives — [x] Landfill Monitoring
- [ ] Sewer Use By-Law: ____ — [ ] Other: ____

REPORT NUMBER (Lab Use)

NOV. 6. 18

B18-34372

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [x] Ottawa [ ] Richmond Hill [ ] Windsor [ ] Barrie [ ] London

Organization: JP2g
Contact: Perry Larochelle
Tel: 613-281-0253
Fax:
Email: perrylejp2g.com

Address and Invoicing Address (if different): 12 International Drive, Pembroke, On

Quote No.: L16-Clarence Rockland
~~P.O. No.:~~ Job No. 17-6021B
Project Name:
Additional Info:

ANALYSES REQUESTED (Print Test in Boxes): ITEM #5, ITEM #6

Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum — 200% Surcharge**
- [ ] Gold — 100% Surcharge
- [ ] Silver — 50% Surcharge
- [ ] Bronze — 25% Surcharge
- [x] Standard — 5-7 days
- [ ] Specific Date: ____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided												✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
	SW#8		SW	18-11-05	11:30AM		✓												7.6	4.0	9	
	S-2		"	" " "	12:30PM		✓												7.3	4.1	"	
	S-1		"	" " "	1:15PM	✓			3										7.2	4.3	4	
	GS-17		"	" " "	2:00PM		✓												7.4	3.6	9	
	GS-6		"	" " "	3:00PM		✓												7.3	4.6	"	
	GS-11		"	" " "	3:40PM		✓												7.4	6.2	"	
	GS-12		"	" " "	4:15PM		✓												8.0	4.5	"	
	GS-15		"	" " "	4:45PM		✓												8.0	4.5	"	
	GS-20		SW	18-11-06	8:15AM	✓			9										7.9	6.4	4	
	GS-21		"	" " "	9:00AM	✓			10										7.5	6.8	"	
	GS-22		"	" " "	9:15AM	✓			11										7.5	6.8	"	

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	Perry Larochelle	
Sign:	P Larochelle	
	18-11-06	2:00PM
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- Client's Courier [ ]
- Caduceon's Courier [ ]
- Drop Off [x]
- Caduceon (Pick-up) [ ]
- Invoice [ ]
- # of Pieces: 2

REPORTING / INVOICING

- Report by Fax [ ]
- Report by Email [x]
- Invoice by Email [x]
- Invoice by Mail [ ]

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): Jerbinc — Signature: L
Date Received (yy-mm-dd): NOV 6 18 — Time Received: 3:11
Laboratory Prepared Bottles: [x] Yes [ ] No
Sample Temperature °C: 18 PET 18 NP 18 M 7 Hg 7 PHENOL. 11 DOC.
Labeled by:

Comments: use lowest possible detections

Page 1 of 1

G 76701

White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

CofC, Feb. 2018, Revision No: 21

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G76701 **REPORT No. B18-34372**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Nov-18
DATE REPORTED: 20-Nov-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		SW#8	S-2	S-1	GS-17
			Sample I.D.		B18-34372-1	B18-34372-2	B18-34372-3	B18-34372-4
			Date Collected		05-Nov-18	05-Nov-18	05-Nov-18	05-Nov-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	14-Nov-18/O	136	123	114	136
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	09-Nov-18/O	90	84	81	98
TDS(ion sum calc.)	mg/L	1	Calc.	14-Nov-18/O	173	164	158	232
Chloride	mg/L	0.5	SM4110C	09-Nov-18/O	33.1	33.8	33.6	66.8
Nitrite (N)	mg/L	0.05	SM4110C	09-Nov-18/O	< 0.05	< 0.05		< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	09-Nov-18/O	1.60	1.25		0.60
Sulphate	mg/L	1	SM4110C	09-Nov-18/O	14	14		17
Calcium	mg/L	0.02	SM 3120	14-Nov-18/O	35.5	32.9	30.6	36.0
Magnesium	mg/L	0.02	SM 3120	14-Nov-18/O	11.4	9.82	9.18	11.2
Sodium	mg/L	0.2	SM 3120	14-Nov-18/O	21.9	20.8	19.9	39.0
Potassium	mg/L	0.1	SM 3120	14-Nov-18/O	1.8	1.5		2.4
Aluminum	mg/L	0.01	SM 3120	19-Nov-18/O	0.11	0.12		0.12
Aluminum (total)	mg/L	0.01	SM 3120	14-Nov-18/O	0.39	0.32		0.58
Barium	mg/L	0.001	SM 3120	14-Nov-18/O	0.039	0.036		0.038
Beryllium	mg/L	0.0001	EPA 200.8	09-Nov-18/O	< 0.0001	< 0.0001		< 0.0001
Boron	mg/L	0.005	SM 3120	14-Nov-18/O	0.011	0.012	0.008	0.013
Cadmium	mg/L	0.000015	EPA 200.8	09-Nov-18/O	0.000032	0.000018		0.000027
Chromium	mg/L	0.001	EPA 200.8	09-Nov-18/O	0.002	0.001		0.003
Cobalt	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0003	0.0003		0.0004
Copper	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0071	0.0015		0.0070
Iron	mg/L	0.005	SM 3120	14-Nov-18/O	0.930	0.916	1.01	0.983
Lead	mg/L	0.00002	EPA 200.8	09-Nov-18/O	0.00049	0.00025		0.00047
Manganese	mg/L	0.001	SM 3120	14-Nov-18/O	0.037	0.052	0.061	0.038
Mercury	mg/L	0.00002	SM 3112 B	14-Nov-18/O	< 0.00002	< 0.00002		< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0004	0.0002		0.0003
Nickel	mg/L	0.0002	EPA 200.8	09-Nov-18/O	0.0021	0.0012		0.0021
Silicon	mg/L	0.01	SM 3120	14-Nov-18/O	6.12	5.97		6.18

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Final Report

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Report To:

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1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Nov-18
DATE REPORTED: 20-Nov-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		SW#8	S-2	S-1	GS-17
			Sample I.D.		B18-34372-1	B18-34372-2	B18-34372-3	B18-34372-4
			Date Collected		05-Nov-18	05-Nov-18	05-Nov-18	05-Nov-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	13-Nov-18/O	< 0.0001	< 0.0001		< 0.0001
Strontium	mg/L	0.001	SM 3120	14-Nov-18/O	0.161	0.138		0.166
Sulphur	mg/L	0.1	SM 3120	14-Nov-18/O	4.5	4.4		5.2
Thallium	mg/L	0.00005	EPA 200.8	09-Nov-18/O	< 0.00005	< 0.00005		< 0.00005
Titanium	mg/L	0.005	SM 3120	14-Nov-18/O	0.020	0.015		0.030
Vanadium	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0016	0.0014		0.0018
Zinc	mg/L	0.005	SM 3120	14-Nov-18/O	0.015	0.016		0.010
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	13-Nov-18/K	0.04	0.05	0.05	0.05
Ammonia (N)-unionized	mg/L	0.01	CALC	13-Nov-18/K	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	08-Nov-18/K	0.6	0.6		0.7
Phosphorus-Total	mg/L	0.01	E3199A.1	08-Nov-18/K	0.07	0.07	0.07	0.18
Phenolics	mg/L	0.002	MOEE 3179	13-Nov-18/K	< 0.002	< 0.002		0.002
BOD(5 day)	mg/L	3	SM 5210B	08-Nov-18/K	4	4		6
COD	mg/L	5	SM 5220D	07-Nov-18/O	41	46		44
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	09-Nov-18/O	11.2	12.0	15.0	13.6
Anion Sum	meq/L		Calc.	14-Nov-18/O	3.15	3.02		4.23
Cation Sum	meq/L		Calc.	14-Nov-18/O	3.76	3.45		4.53
% Difference	%		Calc.	14-Nov-18/O	8.85	6.70		3.47
Ion Ratio	AS/CS		Calc.	14-Nov-18/O	0.837	0.874		0.933
Sodium Adsorption Ratio	-		Calc.	14-Nov-18/O	0.818	0.817		1.46
Conductivity (calc.)	µmho/cm		Calc.	14-Nov-18/O	346	327		456

R.L. = Reporting Limit
Test methods are modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G76701 **REPORT No. B18-34372**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Nov-18
DATE REPORTED: 20-Nov-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-6	GS-11	GS-12	GS-15
			Sample I.D.		B18-34372-5	B18-34372-6	B18-34372-7	B18-34372-8
			Date Collected		05-Nov-18	05-Nov-18	05-Nov-18	05-Nov-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	14-Nov-18/O	105	601	219	207
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	09-Nov-18/O	72	727	254	224
TDS(ion sum calc.)	mg/L	1	Calc.	14-Nov-18/O	117	1193	434	404
Chloride	mg/L	0.5	SM4110C	09-Nov-18/O	13.6	259	96.4	94.1
Nitrite (N)	mg/L	0.05	SM4110C	09-Nov-18/O	< 0.05	0.06	< 0.05	< 0.05
Nitrate (N)	mg/L	0.05	SM4110C	09-Nov-18/O	1.03	1.83	< 0.05	0.10
Sulphate	mg/L	1	SM4110C	09-Nov-18/O	12	64	27	27
Calcium	mg/L	0.02	SM 3120	14-Nov-18/O	27.7	147	39.2	36.8
Magnesium	mg/L	0.02	SM 3120	14-Nov-18/O	8.62	56.8	29.4	28.1
Sodium	mg/L	0.2	SM 3120	14-Nov-18/O	9.6	189	76.9	72.5
Potassium	mg/L	0.1	SM 3120	14-Nov-18/O	1.0	31.6	11.7	11.0
Aluminum	mg/L	0.01	SM 3120	19-Nov-18/O	0.15	0.10	0.04	0.04
Aluminum (total)	mg/L	0.01	SM 3120	14-Nov-18/O	0.42	0.10	0.06	0.10
Barium	mg/L	0.001	SM 3120	14-Nov-18/O	0.034	0.142	0.049	0.045
Beryllium	mg/L	0.0001	EPA 200.8	09-Nov-18/O	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron	mg/L	0.005	SM 3120	14-Nov-18/O	0.006	1.82	0.807	0.766
Cadmium	mg/L	0.000015	EPA 200.8	09-Nov-18/O	0.000033	0.000020	0.000025	0.000021
Chromium	mg/L	0.001	EPA 200.8	09-Nov-18/O	0.002	0.003	< 0.001	< 0.001
Cobalt	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0004	0.0028	0.0004	0.0004
Copper	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0043	0.0049	0.0087	0.0062
Iron	mg/L	0.005	SM 3120	14-Nov-18/O	1.13	0.481	0.159	0.163
Lead	mg/L	0.00002	EPA 200.8	09-Nov-18/O	0.00061	0.00009	0.00037	0.00031
Manganese	mg/L	0.001	SM 3120	14-Nov-18/O	0.077	0.709	0.056	0.050
Mercury	mg/L	0.00002	SM 3112 B	14-Nov-18/O	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0003	0.0004	0.0004	0.0003
Nickel	mg/L	0.0002	EPA 200.8	09-Nov-18/O	0.0017	0.0111	0.0048	0.0043
Silicon	mg/L	0.01	SM 3120	14-Nov-18/O	5.95	4.21	0.35	0.32

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G76701 **REPORT No. B18-34372**

Report To:

Jp2g Consultants Inc.
1150 Morrison Dr.,
Ottawa ON. K2H 8S9 Canada
Attention: Perry Larochelle

Caduceon Environmental Laboratories
2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Nov-18
DATE REPORTED: 20-Nov-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-6	GS-11	GS-12	GS-15
			Sample I.D.		B18-34372-5	B18-34372-6	B18-34372-7	B18-34372-8
			Date Collected		05-Nov-18	05-Nov-18	05-Nov-18	05-Nov-18
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	13-Nov-18/O	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Strontium	mg/L	0.001	SM 3120	14-Nov-18/O	0.118	1.06	0.348	0.325
Sulphur	mg/L	0.1	SM 3120	14-Nov-18/O	3.6	19.2	8.7	8.3
Thallium	mg/L	0.00005	EPA 200.8	09-Nov-18/O	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Titanium	mg/L	0.005	SM 3120	14-Nov-18/O	0.022	< 0.005	0.005	0.005
Vanadium	mg/L	0.0001	EPA 200.8	09-Nov-18/O	0.0015	0.0023	0.0015	0.0013
Zinc	mg/L	0.005	SM 3120	14-Nov-18/O	0.011	0.013	0.011	0.012
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	13-Nov-18/K	0.05	5.78	0.09	0.05
Ammonia (N)-unionized	mg/L	0.01	CALC	13-Nov-18/K	< 0.01	0.33	< 0.01	< 0.01
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	08-Nov-18/K	0.6	9.8	1.9	1.9
Phosphorus-Total	mg/L	0.01	E3199A.1	08-Nov-18/K	0.04	0.02	0.05	0.05
Phenolics	mg/L	0.002	MOEE 3179	13-Nov-18/K	0.002	0.010	0.003	0.002
BOD(5 day)	mg/L	3	SM 5210B	08-Nov-18/K	5	6	7	9
COD	mg/L	5	SM 5220D	07-Nov-18/O	47	131	71	80
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	09-Nov-18/O	17.1	20.5	17.3	17.2
Anion Sum	meq/L		Calc.	14-Nov-18/O	2.15	23.3	8.38	7.70
Cation Sum	meq/L		Calc.	14-Nov-18/O	2.60	21.5	8.04	7.60
% Difference	%		Calc.	14-Nov-18/O	9.64	4.04	2.08	0.681
Ion Ratio	AS/CS		Calc.	14-Nov-18/O	0.824	1.08	1.04	1.01
Sodium Adsorption Ratio	-		Calc.	14-Nov-18/O	0.410	3.35	2.26	2.19
Conductivity (calc.)	µmho/cm		Calc.	14-Nov-18/O	235	1970	797	752

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Nov-18
DATE REPORTED: 20-Nov-18
SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-20	GS-21	GS-22	
			Sample I.D.		B18-34372-9	B18-34372-10	B18-34372-11	
			Date Collected		06-Nov-18	06-Nov-18	06-Nov-18	
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Hardness (as CaCO3)	mg/L	1	SM 3120	14-Nov-18/O	143	132	139	
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	09-Nov-18/O	116	110	110	
TDS(ion sum calc.)	mg/L	1	Calc.	14-Nov-18/O	235	210	215	
Chloride	mg/L	0.5	SM4110C	09-Nov-18/O	46.5	37.2	37.2	
Nitrite (N)	mg/L	0.05	SM4110C	09-Nov-18/O				
Nitrate (N)	mg/L	0.05	SM4110C	09-Nov-18/O				
Sulphate	mg/L	1	SM4110C	09-Nov-18/O				
Calcium	mg/L	0.02	SM 3120	14-Nov-18/O	32.1	29.6	31.0	
Magnesium	mg/L	0.02	SM 3120	14-Nov-18/O	15.3	14.2	15.0	
Sodium	mg/L	0.2	SM 3120	14-Nov-18/O	36.4	29.3	30.8	
Potassium	mg/L	0.1	SM 3120	14-Nov-18/O				
Aluminum	mg/L	0.01	SM 3120	19-Nov-18/O				
Aluminum (total)	mg/L	0.01	SM 3120	14-Nov-18/O				
Barium	mg/L	0.001	SM 3120	14-Nov-18/O				
Beryllium	mg/L	0.0001	EPA 200.8	09-Nov-18/O				
Boron	mg/L	0.005	SM 3120	14-Nov-18/O	0.059	0.035	0.036	
Cadmium	mg/L	).000015	EPA 200.8	09-Nov-18/O				
Chromium	mg/L	0.001	EPA 200.8	09-Nov-18/O				
Cobalt	mg/L	0.0001	EPA 200.8	09-Nov-18/O				
Copper	mg/L	0.0001	EPA 200.8	09-Nov-18/O				
Iron	mg/L	0.005	SM 3120	14-Nov-18/O	1.04	0.746	0.993	
Lead	mg/L	0.00002	EPA 200.8	09-Nov-18/O				
Manganese	mg/L	0.001	SM 3120	14-Nov-18/O	0.032	0.017	0.019	
Mercury	mg/L	0.00002	SM 3112 B	14-Nov-18/O				
Molybdenum	mg/L	0.0001	EPA 200.8	09-Nov-18/O				
Nickel	mg/L	0.0002	EPA 200.8	09-Nov-18/O				
Silicon	mg/L	0.01	SM 3120	14-Nov-18/O				

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DATE RECEIVED: 06-Nov-18
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SAMPLE MATRIX: Surface Water

JOB/PROJECT NO.: Clarence Rockland WDS
P.O. NUMBER: Job No. 17-6021B
WATERWORKS NO.

			Client I.D.		GS-20	GS-21	GS-22	
			Sample I.D.		B18-34372-9	B18-34372-10	B18-34372-11	
			Date Collected		06-Nov-18	06-Nov-18	06-Nov-18	
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Silver	mg/L	0.0001	EPA 200.8	13-Nov-18/O				
Strontium	mg/L	0.001	SM 3120	14-Nov-18/O				
Sulphur	mg/L	0.1	SM 3120	14-Nov-18/O				
Thallium	mg/L	0.00005	EPA 200.8	09-Nov-18/O				
Titanium	mg/L	0.005	SM 3120	14-Nov-18/O				
Vanadium	mg/L	0.0001	EPA 200.8	09-Nov-18/O				
Zinc	mg/L	0.005	SM 3120	14-Nov-18/O				
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	13-Nov-18/K	0.05	0.03	0.03	
Ammonia (N)-unionized	mg/L	0.01	CALC	13-Nov-18/K	< 0.01	< 0.01	< 0.01	
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	08-Nov-18/K				
Phosphorus-Total	mg/L	0.01	E3199A.1	08-Nov-18/K	0.08	0.05	0.05	
Phenolics	mg/L	0.002	MOEE 3179	13-Nov-18/K				
BOD(5 day)	mg/L	3	SM 5210B	08-Nov-18/K				
COD	mg/L	5	SM 5220D	07-Nov-18/O				
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	09-Nov-18/O	8.4	6.7	6.8	
Anion Sum	meq/L		Calc.	14-Nov-18/O				
Cation Sum	meq/L		Calc.	14-Nov-18/O				
% Difference	%		Calc.	14-Nov-18/O				
Ion Ratio	AS/CS		Calc.	14-Nov-18/O				
Sodium Adsorption Ratio	-		Calc.	14-Nov-18/O				
Conductivity (calc.)	µmho/cm		Calc.	14-Nov-18/O				

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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QUOTATION FOR ANALYTICAL SERVICES

Quote # :	**L16_ClarenceRockland**
Organization:	**JP2G**
Contact:	Perry Larochelle
Telephone:	613-735-2507
Facsimile:	613-735-4513
Email:	perryl@jp2g.com
Project #:	**Clarence-Rockland Landfill - 2166270A**
Address:	12 International Drive, Pembroke ON K8A 6W5
Additional Info:	**QUOTE # ('S) MUST BE ON C OF C TO APPLY if not listed, General pricing will be applied.**
Additional Info:	**Laboratory detection limit should be to ODWS or PWQO - whichever is lowest**
Date:	31-Mar-16 **Valid Until:** 31-Dec-19

Item #	Quantity	Analysis Request	Matrix	Unit Cost, $	Amount, $
		Spring, Summer & Fall Sampling			
1	10	**General Chemistry:** Alkalinity, Cl, DOC, TDS, **Nutrients:** NH3, TP, PO4 **Metals:** B, Na, Fe, Mn, Co + Hardness	GW	70.00	700.00
2	12	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, TP/TKN, PO4 **Metals:** Ag, Al, B, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Ti, Tl, V, Zn + Hardness	GW	100.00	1200.00
3	28	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, TP, PO4 **Metals:** B, Fe, Mn, Na + Hardness	GW	70.00	1960.00
4	8	**VOC** (624 Scan)	GW	40.00	320.00
5	7	**General Chemistry:** Alkalinity, Cl, DOC, TDS **Nutrients:** NH3, U-NH3, TP **Metals:** B, Fe, Mn, Na + Hardness	SW	70.00	490.00
6 3, 9, 10-11	18	**General Chemistry:** Alkalinity, Cl, SO4, NO2/NO3, BOD, COD, DOC, TDS, Phenols **Nutrients:** NH3, U-NH3, TP/TKN **Metals:** Ag, Al **(total & dissolved),** B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, S, Si, Sr, Tl, Ti, V, Zn + Hardness	SW	100.00	1800.00

Prices do not include shipping unless otherwise stated.
Environmental disposal fees included in pricing

Subtotal	6,470.00
HST	841.10
Total Cost	7,311.10

Rebecca Marshall
Customer Service Representative
Caduceon Environmental Laboratories
613-526-0123

APPENDIX G

2018 Monitoring Wells Observations

G-1 Monitoring Well Completion Details
2018 Annual Environmental Monitoring Program for the Clarence-Rockland Waste Disposal Site
City of Clarence-Rockland, Ontario

Well ID	Main Screened Unit	Top of Casing Elevation (mASL)	Well Depth (m Top of pipe)	Bottom of Well (mASL)	Depth to Top of Screen (m)	Length of Screened Interval (m)	Top of Screen (mASL)
P1-91	Sandy material	55.15	3.53	51.62	2.01	1.52	53.14
P2-90	Sandy material	61.22	5.55	55.67	4.03	1.52	57.19
P3-90	Sandy material	65.66	Decommissioned	--	--	--	--
P4-90	Sandy material	60.35	3.92	56.43	2.40	1.52	57.95
P5A-91	Sandy material	59.28	5.69	53.59	4.17	1.52	55.11
P5B-91	Sandy material	58.61	3.41	55.20	2.65	0.76	55.96
P6-91	Sandy material	55.67	3.58	52.09	2.06	1.52	53.61
P7-91	Sandy material	58.24	3.68	54.56	2.16	1.52	56.08
G8A-92	Silty clay	59.99	12.86	47.13	11.34	1.52	48.65
G8B-92	Silty clay	59.98	7.44	52.54	5.92	1.52	54.06
G8C-92	Sandy material	59.99	3.58	56.41	2.06	1.52	57.93
G9A-92	Silty clay	56.85	12.93	43.92	11.41	1.52	45.44
G9B-92	Silty clay	56.84	6.09	50.75	4.57	1.52	52.27
G9C-92	Sandy material	56.56	2.43	54.13	0.91	1.52	55.65
G10S-92	--	--	Decommissioned	--	--	--	--
G10D-92	--	--	Decommissioned	--	--	--	--
G11-92	--	--	Decommissioned	--	--	--	--
G12-92	sand & Silty clay	54.83	3.10	51.73	1.58	1.52	53.25
G13-92	Silty clay	54.77	3.12	51.65	1.60	1.52	53.17
G14-92	Silty clay	60.28	6.07	54.21	4.55	1.52	55.73
G15-92	Sandy material	57.38	12.84	44.54	11.32	1.52	46.06
G17-92	Silty clay	54.57	2.94	51.63	1.42	1.52	53.15
G18-92	Sandy material	56.28	2.71	53.57	1.19	1.52	55.09
G19-92	Sandy material	--	Destroyed	--	--	1.52	--
G20-92	Sandy material	60.50	2.42	58.08	0.90	1.52	59.60
G21-94	Sandy material	56.00	2.52	53.48	1.61	0.91	54.39
G23-94	Sandy material	61.86	5.60	56.26	4.08	1.52	57.78
G24-94	Sandy material	--	Destroyed	--	--	--	--
G25-94	Sandy material	62.18	6.03	56.15	4.51	1.52	57.67
G26-94	Sandy material	59.82	3.38	56.44	1.86	1.52	57.96
G27-97	Sandy material	54.52	1.81	52.71	1.05	0.76	53.47
G28-97	Sandy material	54.46	2.15	52.31	1.39	0.76	53.07
G29-97	Sandy material	61.80	6.61	55.19	5.09	1.52	56.71
G30-97	Silty clay	54.18	13.51	40.67	11.99	1.52	42.19
G31A-98	Bedrock	54.12	17.50	36.62	15.98	1.52	38.14
G31B-98	Till	54.15	21.05	33.10	19.53	1.52	34.62
G32A-98	Bedrock	61.52	28.66	32.86	27.14	1.52	34.38
G32B-98	Till	61.53	25.81	35.72	24.29	1.52	37.24
G33A-98	Bedrock	54.28	22.69	31.59	21.17	1.52	33.11
G33B-98	Till	54.36	18.75	35.61	17.23	1.52	37.13
G36-01	Sandy material	59.83	4.31	55.52	2.79	1.52	57.04
G37-01	Sandy material	61.36	6.12	55.24	4.60	1.52	56.76
G38-03	Sandy material	59.66	3.61	56.05	2.09	1.52	57.57
G39-07	Sandy material	50.66	2.04	48.62	0.83	1.21	49.83
G40-07	Sandy material	50.55	2.43	48.12	1.22	1.21	49.33
G41-10	Peat	--	Destroyed	--	--	--	--
G42-10	Peat	48.55	3.08	45.47	1.56	1.52	46.99
G43-11	Silty clay	48.57	3.98	44.59	2.46	1.52	46.11

Indicates well were cut in 2017 and elevation ajusted by substracting the length of the cut.
Adjusted based on 2018 field notes.

G-2 Water Levels
2018 Annual Environmental Monitoring Program for the
Clarence-Rockland Waste Disposal Site City of Clarence-Rockland, Ontario

Well ID	Top of Casing Elevation (mASL)	Water Level Below Top of Casing (mBTOC)		Potentiometric Elevation (mASL)		Water Level Below Top of Casing (mBTOC)		Potentiometric Elevation (mASL)		Water Level Below Top of Casing (mBTOC)		Potentiometric Elevation (mASL)	
		16-Jun-16	22-Aug-16	16-Jun-16	22-Aug-16	1-May-17	20-Sep-17	1-May-17	20-Sep-17	April 2018	August 2018	April 2018	August 2018
P1-91	55.15	1.51	1.43	53.64	53.72	1.23	1.44	53.92	53.71	1.27	1.44	53.88	53.71
P2-90	61.22	4.43	4.58	56.79	56.64	3.49	4.41	57.73	56.81	3.78	4.55	57.44	56.67
P3-90	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned
P4-90	60.35	2.76	2.97	57.59	57.38	1.32	2.83	59.03	57.52	1.92	2.97	58.43	57.38
P5A-91	59.28	3.07	3.35	56.21	55.93	2.03	3.15	57.25	56.13	2.22	3.27	57.06	56.01
P5B-91	58.61	2.37	2.73	56.24	55.88	1.41	2.54	57.20	56.07	1.59	2.67	57.02	55.94
P6-91	55.67	1.75	1.67	53.92	54.00	1.25	1.73	54.42	53.94	1.35	1.74	54.32	53.93
P7-91	58.24	2.56	2.57	55.68	55.67	2.46	2.57	55.78	55.67	2.50	2.61	55.74	55.63
G8A-92	59.99	4.56	4.69	55.43	55.30	4.36	4.53	55.63	55.46	4.22	4.41	55.77	55.58
G8B-92	59.98	3.18	3.35	56.80	56.63	0.81	3.01	59.17	56.97	2.99	3.19	56.99	56.79
G8C-92	59.99	2.33	2.53	57.66	57.46	2.98	2.39	57.01	57.60	1.57	2.52	58.42	57.47
G9A-92	56.85	1.92	2.27	54.93	54.58	1.79	0.76	55.06	56.09	0.82	2.10	56.03	54.75
G9B-92	56.84	0.41	0.45	56.43	56.39	0.52	1.97	56.32	54.87	1.56	2.29	55.28	54.55
G9C-92	56.56	2.27	2.21	54.29	54.35	1.39	2.26	55.17	54.30	1.80	0.79	54.76	55.77
G10S-92	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned
G10D-92	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned
G11-92	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned	Decomissioned
G12-92	54.83	2.37	Dry	52.46	Dry	1.61	2.24	53.22	52.59	2.01	2.30	52.82	52.53
G13-92	54.77	2.10	Dry	52.67	Dry	1.20	2.10	53.57	52.67	1.53	2.06	53.24	52.71
G14-92	60.28	4.78	4.90	55.50	55.38	4.12	4.73	56.16	55.55	4.24	4.78	56.04	55.50
G15-92	57.38	6.13	7.98	51.25	49.40	3.70	8.18	53.68	49.20	6.15	6.12	51.23	51.26
G17-92	54.57	2.72	Dry	51.85	Dry	0.99	2.11	53.58	52.46	1.41	1.93	53.16	52.64
G18-92	56.28	1.98	1.99	54.30	54.29	1.51	1.95	54.77	54.33	1.56	1.96	54.72	54.32
G19-92	Destoyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
G20-92	60.50	2.16	Dry	58.34	Dry	0.78	2.25	59.72	58.25	1.23	Dry	59.27	Dry
G21-94	56.00	2.11	1.86	53.89	54.14	1.34	2.04	54.66	53.96	1.73	2.00	54.27	54.00
G23-94	61.86	4.90	5.05	56.96	56.81	4.39	4.93	57.47	56.93	4.55	5.05	57.31	56.81
G24-94	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
G25-94	62.18	4.68	4.90	57.50	57.28	3.69	4.73	58.49	57.45	4.10	4.87	58.08	57.31
G26-94	59.82	1.96	2.30	57.86	57.52	0.70	2.12	59.12	57.70	1.26	2.24	58.56	57.58
G27-97	54.52	1.13	1.01	53.39	53.51	0.65	1.10	53.87	53.42	0.83	1.06	53.69	53.46
G28-97	54.46	1.54	Dry	52.92	Dry	0.74	1.46	53.72	53.00	0.87	1.31	53.59	53.15
G29-97	61.80	4.82	4.96	56.98	56.84	4.26	4.84	57.54	56.96	4.47	4.92	57.33	56.88
G30-97	54.18	4.38	4.47	49.80	49.71	4.31	4.41	49.87	49.77	4.29	4.36	49.89	49.82
G31A-98	54.12	5.02	5.20	49.10	48.92	4.69	5.03	49.43	49.09	4.82	4.94	49.30	49.18
G31B-98	54.15	4.96	5.13	49.19	49.02	4.64	5.07	49.51	49.08	4.85	4.98	49.30	49.17
G32A-98	61.52	5.38	5.63	56.14	55.89	5.04	5.38	56.48	56.14	4.54	4.79	56.98	56.73
G32B-98	61.53	5.39	5.65	56.14	55.88	5.40	5.46	56.13	56.07	4.59	4.62	56.94	56.91
G33A-98	54.28	5.10	5.34	49.18	48.94	4.82	5.23	49.46	49.05	5.00	5.11	49.28	49.17
G33B-98	54.36	5.18	5.42	49.18	48.94	4.91	5.30	49.45	49.06	5.06	5.20	49.30	49.16
G36-01	59.83	1.75	1.95	58.08	57.88	0.79	1.74	59.04	58.09	0.95	1.93	58.88	57.90
G37-01	61.36	2.84	3.16	58.52	58.20	1.82	2.91	59.54	58.45	2.09	3.09	59.27	58.27
G38-03	59.66	1.85	2.08	57.81	57.58	0.68	1.91	58.98	57.75	1.10	2.04	58.56	57.62
G39-07	50.66	1.29	1.46	49.37	49.20	1.82	1.37	48.84	49.29	1.35	1.27	49.31	49.39
G40-07	50.55	1.49	1.55	49.06	49.00	1.32	1.46	49.23	49.09	1.31	1.46	49.24	49.09
G41-10	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
G42-10	48.55	1.46	1.43	47.09	47.12	0.88	1.47	47.67	47.08	1.14	1.52	47.41	47.03
G43-11	48.57	1.62	1.70	46.95	46.87	1.05	1.47	47.52	47.10	1.12	1.70	47.45	46.87

mBTOC = metres below top of casing
mASL = metres above sea level
-- = not measured

Top of casing elevations cut in 2018
G13-92 cut 0.255m
G14-92 cut 0.04m
G39-07 cut 0.14m
G43 cut 0.16m

APPENDIX H

Groundwater Concentrations

H-1: 2018 Data
H-2: Voc's
H-3: Historical Data (PDF Only)

APPENDIX H-1

2018 Data

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Leachate Impacted P1-91 01-May-2018 P1-91	Sandy Unit Leachate Impacted P1-91 21-Aug-2018 P1-91	Sandy Unit Leachate Impacted P5B-91 01-May-2018	Sandy Unit Leachate Impacted P5B-91 21-Aug-2018
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1470	1290	1240	1470
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.84	1.03	90.1	74.1
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	7	6	6	6
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	187	201	187	294
Chloride	mg/l	--	250	255	219	63.7	11.2
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	2910	2540	1870	2410
Dissolved Organic Carbon	mg/l	--	5	61.6	64.2	54.1	56
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1430	1120	647	853
Nitrate as N	mg/l	10	--	< 0.5	< 0.05	0.33	< 0.05
Nitrite as N	mg/l	1	--	< 0.5	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	5.6	6.1	103	124
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.25	0.19	0.4	20.6
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	< 10	6	11	2
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1924	1650	1316	1599
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Leachate Impacted P1-91 01-May-2018 P1-91	Sandy Unit Leachate Impacted P1-91 21-Aug-2018 P1-91	Sandy Unit Leachate Impacted P5B-91 01-May-2018	Sandy Unit Leachate Impacted P5B-91 21-Aug-2018
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.14	0.12	0.1	0.12
Barium, dissolved	mg/l	1	--	0.293	0.218	0.472	0.515
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	1.74	1.44	1.34	1.77
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015	0.000036	< 0.000015
Calcium, dissolved	mg/l	--	--	368	278	199	258
Chromium, dissolved	mg/l	0.05	--	0.003	0.004	0.002	0.003
Cobalt, dissolved	mg/l	--	--	0.0013	0.0019	0.0047	0.0044
Copper, dissolved	mg/l	--	1	< 0.0001	0.0001	0.0011	0.0003
Iron, dissolved	mg/l	--	0.3	25.9	22.8	48.7	57.2
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.00002	0.00008	0.00004
Magnesium, dissolved	mg/l	--	--	124	103	36.3	50.6
Manganese, dissolved	mg/l	--	0.05	6.07	3.97	3.38	5.2
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	< 0.0001	0.0001	0.0004	0.0004
Nickel, dissolved	mg/l	--	--	< 0.01	0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	17.1	14.5	98.9	86
Silicon, dissolved	mg/l	--	--	11.3	10.8	8.96	11
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 (7)	244	229	110	153
Strontium, dissolved	mg/l	--	--	2.13	1.45	1.2	1.43
Sulfur, dissolved	mg/l	--	--	6.9	10.4	5.8	11.4
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--		--	
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0064	0.0086	0.0061	0.0093
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	< 0.005	0.009
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	0.005	0.011	< 0.001	0.02
Field Measurements							
Conductivity (Field)	uS/cm	--	--	2150	1378	1863	1470
Temperature (Field)	deg c	--	15	6.8	12.9	6.6	14.8
pH (Field)	-	--	--	6.6	6.7	8.2	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Leachate Impacted P6-91 01-May-2018	Sandy Unit Leachate Impacted P6-91 21-Aug-2018	Sandy Unit Moderate Impact G21-94 01-May-2018 G21-94	Sandy Unit Roadside Impact G21-94 21-Aug-2018 G21-94
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	2010	2310	163	99
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	88.8	133	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	12	16	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	384	490	--	--
Chloride	mg/l	--	250	526	492	37	1070
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	3970	4600	--	--
Dissolved Organic Carbon	mg/l	--	5	121	19.7	2.5	0.3
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1480	1340	93	748
Nitrate as N	mg/l	10	--	< 0.5	< 0.5	--	--
Nitrite as N	mg/l	1	--	< 0.5	< 0.5	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	117	183	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.02	< 0.01	0.01	< 0.01
Phosphorus	mg/l	--	--	0.31	0.29	0.68	0.33
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	< 10	< 10	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2787	3124	268	1827
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Leachate Impacted P6-91 01-May-2018	Sandy Unit Leachate Impacted P6-91 21-Aug-2018	Sandy Unit Moderate Impact G21-94 01-May-2018 G21-94	Sandy Unit Roadside Impact G21-94 21-Aug-2018 G21-94
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.15	0.15	--	--
Barium, dissolved	mg/l	1	--	0.844	0.939	--	--
Beryllium, dissolved	mg/l	--	--	< 0.0001	0.0002	--	--
Boron, dissolved	mg/l	5	--	2.69	5.23	< 0.005	0.008
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000059	--	--
Calcium, dissolved	mg/l	--	--	404	363	--	--
Chromium, dissolved	mg/l	0.05	--	0.003	0.016	--	--
Cobalt, dissolved	mg/l	--	--	0.0015	0.0079	--	--
Copper, dissolved	mg/l	--	1	0.0002	< 0.0003	--	--
Iron, dissolved	mg/l	--	0.3	7.36	6.52	0.014	0.07
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.0002	--	--
Magnesium, dissolved	mg/l	--	--	114	106	--	--
Manganese, dissolved	mg/l	--	0.05	12.5	10.9	0.001	0.154
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	--	--
Molybdenum, dissolved	mg/l	--	--	< 0.0001	0.0005	--	--
Nickel, dissolved	mg/l	--	--	0.01	0.02	--	--
Potassium, dissolved	mg/l	--	--	77.5	105	--	--
Silicon, dissolved	mg/l	--	--	12.9	11.5	--	--
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0002	--	--
Sodium, dissolved	mg/l	--	200 [7]	441	484	82.9	389
Strontium, dissolved	mg/l	--	--	2.33	2.21	--	--
Sulfur, dissolved	mg/l	--	--	8	9.9	--	--
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	--	--
Tin, dissolved	mg/l	--	--	--		--	--
Titanium, dissolved	mg/l	--	--	0.012	0.012	--	--
Vanadium, dissolved	mg/l	--	--	0.0094	0.0402	--	--
Zinc, dissolved	mg/l	--	5	0.009	0.005	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	0.005	0.027	< 0.001	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	Metre	2570	383	1826
Temperature (Field)	deg c	--	15	Malfunctioned	14.3	4.9	15.6
pH (Field)	-	--	--		6.8	7.2	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Moderate Impact G20-92 01-May-2018 G20-92	Sandy Unit Moderate Impact G20-92 21-Aug-2018 DRY	Sandy Unit Moderate Impact G27-97 01-May-2018 27-97	Sandy Unit Moderate Impact G27-97 21-Aug-2018 27-97
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	635	--	543	556
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	18.3	--	0.42	0.03
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--
Chloride	mg/l	--	250	25.3	--	111	136
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	22.8	--	18.8	17.9
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	550	--	729	756
Nitrate as N	mg/l	10	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	--	< 0.01	< 0.01
Phosphorus	mg/l	--	--	1.01	--	0.17	0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	746	--	908	1040
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Moderate Impact G20-92 01-May-2018 G20-92	Sandy Unit Moderate Impact G20-92 21-Aug-2018 DRY	Sandy Unit Moderate Impact G27-97 01-May-2018 27-97	Sandy Unit Moderate Impact G27-97 21-Aug-2018 27-97
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	1.01	--	0.528	0.902
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.074	--	0.594	0.589
Lead, dissolved	mg/l	0.01	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.599	--	0.529	0.282
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	50.8	--	79.9	98.1
Strontium, dissolved	mg/l	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--	--	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	1085	--	1190	1031
Temperature (Field)	deg c	--	15	3.3	--	5.6	16.1
pH (Field)	-	--	--	6.7	--	7.1	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Moderate Impact G28-97 01-May-2018 28-97	Sandy Unit Moderate Impact G28-97 21-Aug-2018 28-97	Sandy Unit Moderate Impact G29-97 01-May-2018 29-97	Sandy Unit Moderate Impact G29-97 21-Aug-2018 29-97
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	298	391	464	487
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	99	124
Chloride	mg/l	--	250	50.1	110	28.8	15.7
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	1030	1040
Dissolved Organic Carbon	mg/l	--	5	24.8	44.5	13.2	16.1
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	222	296	545	556
Nitrate as N	mg/l	10	--	--	--	0.12	0.77
Nitrite as N	mg/l	1	--	--	--	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	1.8	1.7
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.01	< 0.01	0.02	0.01
Phosphorus	mg/l	--	--	0.1	0.03	12.3	16.5
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	53	41
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	404	710	590	594
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Moderate Impact G28-97 01-May-2018 28-97	Sandy Unit Moderate Impact G28-97 21-Aug-2018 28-97	Sandy Unit Moderate Impact G29-97 01-May-2018 29-97	Sandy Unit Moderate Impact G29-97 21-Aug-2018 29-97
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.08	0.07
Barium, dissolved	mg/l	1	--	--	--	0.093	0.091
Beryllium, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	1.22	3.15	0.074	0.075
Cadmium, dissolved	mg/l	0.005	--	--	--	0.000144	0.000179
Calcium, dissolved	mg/l	--	--	--	60.9	149	153
Chromium, dissolved	mg/l	0.05	--	--	--	< 0.001	< 0.001
Cobalt, dissolved	mg/l	--	--	--	--	0.0055	0.0074
Copper, dissolved	mg/l	--	1	--	--	0.0053	0.0067
Iron, dissolved	mg/l	--	0.3	0.108	0.076	0.021	0.005
Lead, dissolved	mg/l	0.01	--	--	--	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	--	34.9	42	42.3
Manganese, dissolved	mg/l	--	0.05	0.057	0.119	3.52	3.83
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	0.0002	0.0004
Nickel, dissolved	mg/l	--	--	--	--	0.01	0.01
Potassium, dissolved	mg/l	--	--	--	--	2.3	2.5
Silicon, dissolved	mg/l	--	--	--	--	7.69	6.82
Silver, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 [7]	93.5	165	33.2	43.3
Strontium, dissolved	mg/l	--	--	--	--	0.914	0.876
Sulfur, dissolved	mg/l	--	--	--	--	17.3	19
Thallium, dissolved	mg/l	--	--	--	--	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--		
Titanium, dissolved	mg/l	--	--	--	--	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	--	--	0.001	0.0014
Zinc, dissolved	mg/l	--	5	--	--	< 0.005	0.006
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	0.018
Field Measurements							
Conductivity (Field)	uS/cm	--	--	550	824	748	633
Temperature (Field)	deg c	--	15	5	17.1	8.2	9.2
pH (Field)	-	--	--	7.2	7.0	6.6	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Bedrock Moderate Impact G31A-98 01-May-2018	Bedrock Moderate Impact G31A-98 21-Aug-2018	Sandy Unit Moderate Impact G40-07 01-May-2018 40-07	Sandy Unit Moderate Impact G40-07 21-Aug-2018 40-07
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	427	408	203	203
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.65	0.55	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--
Chloride	mg/l	--	250	88.9	87.7	56.6	56.6
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	13.9	8.4	18.3	20.4
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	11	10	202	262
Nitrate as N	mg/l	10	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.91	0.93	0.01	0.01
Phosphorus	mg/l	--	--	9.36	23.3	0.25	0.15
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	634	594	321	462
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Bedrock Moderate Impact G31A-98 01-May-2018	Bedrock Moderate Impact G31A-98 21-Aug-2018	Sandy Unit Moderate Impact G40-07 01-May-2018 40-07	Sandy Unit Moderate Impact G40-07 21-Aug-2018 40-07
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	1.01	0.902	0.557	0.878
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.033	0.039	1.74	1.83
Lead, dissolved	mg/l	0.01	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.005	0.004	0.493	0.657
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	279	252	57.9	89.9
Strontium, dissolved	mg/l	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--	--	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	890	852	496	607
Temperature (Field)	deg c	--	15	8.9	9.2	3.5	16.4
pH (Field)	-	--	--	9.1	9.0	6.9	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Moderate Impact G36-01 01-May-2018	Sandy Unit Moderate Impact G36-01 21-Aug-2018	Sandy Unit Moderate Impact G38-03 01-May-2018	Sandy Unit Moderate Impact G38-03 21-Aug-2018
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	231	225	310	355
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.02	< 0.01	0.03	0.27
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--
Chloride	mg/l	--	250	42.4	37.8	18.2	17.9
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	26.4	15.7	9.3	11.9
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	443	254	407	387
Nitrate as N	mg/l	10	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.16	0.06	0.6	0.66
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	507	371	507	470
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Moderate Impact G36-01 01-May-2018	Sandy Unit Moderate Impact G36-01 21-Aug-2018	Sandy Unit Moderate Impact G38-03 01-May-2018	Sandy Unit Moderate Impact G38-03 21-Aug-2018
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.069	0.058	0.091	0.112
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0013	0.001	0.0051	0.0055
Copper, dissolved	mg/l	--	1	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.009	0.005	45.1	36.3
Lead, dissolved	mg/l	0.01	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	4.68	1.99	4.95	3.99
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	31.3	41.1	25.1	24.8
Strontium, dissolved	mg/l	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	--	--	< 0.001	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	758	523	685	613
Temperature (Field)	deg c	--	15	4	13.6	5	13.1
pH (Field)	-	--	--	7.3	6.9	6.6	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Moderate Impact G39-07 01-May-2018 39-07	Sandy Unit Moderate Impact G39-07 21-Aug-2018 39-07	Silty Clay Unit Moderate Impact G42-10 01-May-2018 G42-11	Silty Clay Unit Moderate Impact G42-10 21-Aug-2018 G42-11
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	205	334	203	307
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.32	1.9	0.7	1.72
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	213	605
Chloride	mg/l	--	250	48.8	93.4	231	226
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	1170	1290
Dissolved Organic Carbon	mg/l	--	5	13.8	21	26.6	20.3
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	195	272	261	289
Nitrate as N	mg/l	10	--	--	--	0.12	< 0.05
Nitrite as N	mg/l	1	--	--	--	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	3.2	4.5
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	0.04	0.01
Phosphorus	mg/l	--	--	0.32	0.73	0.32	0.24
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	8	8
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	319	493	614	698
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Moderate Impact G39-07 01-May-2018 39-07	Sandy Unit Moderate Impact G39-07 21-Aug-2018 39-07	Silty Clay Unit Moderate Impact G42-10 01-May-2018 G42-11	Silty Clay Unit Moderate Impact G42-10 21-Aug-2018 G42-11
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.22	0.1
Barium, dissolved	mg/l	1	--	--	--	0.05	0.043
Beryllium, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.721	0.973	0.162	0.298
Cadmium, dissolved	mg/l	0.005	--	--	--	0.000022	< 0.000015
Calcium, dissolved	mg/l	--	--	--	--	54.6	63
Chromium, dissolved	mg/l	0.05	--	--	--	0.002	0.002
Cobalt, dissolved	mg/l	--	--	--	--	0.0016	0.0014
Copper, dissolved	mg/l	--	1	--	--	0.0025	0.0011
Iron, dissolved	mg/l	--	0.3	0.325	4.13	2.78	5
Lead, dissolved	mg/l	0.01	--	--	--	0.00051	0.00026
Magnesium, dissolved	mg/l	--	--	--	--	30.2	32.1
Manganese, dissolved	mg/l	--	0.05	0.222	0.41	0.824	0.772
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	0.0005	0.0008
Nickel, dissolved	mg/l	--	--	--	--	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	--	4.5	7
Silicon, dissolved	mg/l	--	--	--	--	5.5	8.44
Silver, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 [7]	64.3	77.4	160	170
Strontium, dissolved	mg/l	--	--	--	--	0.257	0.267
Sulfur, dissolved	mg/l	--	--	--	--	3.5	5.3
Thallium, dissolved	mg/l	--	--	--	--	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	--	--	0.006	0.006
Vanadium, dissolved	mg/l	--	--	--	--	0.0022	0.0034
Zinc, dissolved	mg/l	--	5	--	--	0.013	0.011
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	0.012
Field Measurements							
Conductivity (Field)	uS/cm	--	--	467	678	917	897
Temperature (Field)	deg c	--	15	5.4	20.7	4	11.8
pH (Field)	-	--	--	7.3	6.9	6.8	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Not Impacted G37-01 01-May-2018 37-01	Sandy Unit Moderate Impact G37-01 21-Aug-2018 37-01	Silty Clay Unit Moderate Impact G17-92 01-May-2018	Silty Clay Unit Moderate Impact G17-92 21-Aug-2018
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	32	30	204	267
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	0.02	0.03
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	69	11	--	--
Chloride	mg/l	--	250	138	335	4.7	12.9
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	667	1220	--	--
Dissolved Organic Carbon	mg/l	--	5	1.8	0.6	4	6.3
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	103	182	236	298
Nitrate as N	mg/l	10	--	4.94	4.2	--	--
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.3	0.3	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.03	< 0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.19	0.07	0.83	0.68
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	48	41	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	343	623	233	328
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Not Impacted G37-01 01-May-2018 37-01	Sandy Unit Moderate Impact G37-01 21-Aug-2018 37-01	Silty Clay Unit Moderate Impact G17-92 01-May-2018	Silty Clay Unit Moderate Impact G17-92 21-Aug-2018
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.03	0.04	--	--
Barium, dissolved	mg/l	1	--	0.057	0.106	--	--
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Boron, dissolved	mg/l	5	--	0.009	0.008	0.009	0.031
Cadmium, dissolved	mg/l	0.005	--	0.000057	0.000137	--	--
Calcium, dissolved	mg/l	--	--	26.3	45.2	--	--
Chromium, dissolved	mg/l	0.05	--	0.004	0.001	--	--
Cobalt, dissolved	mg/l	--	--	0.0001	0.0003	--	--
Copper, dissolved	mg/l	--	1	0.0007	0.0009	--	--
Iron, dissolved	mg/l	--	0.3	0.005	< 0.005	0.028	1.26
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.00002	--	--
Magnesium, dissolved	mg/l	--	--	9.14	16.7	--	--
Manganese, dissolved	mg/l	--	0.05	0.019	0.033	0.106	0.201
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	--	--
Molybdenum, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	--	--
Potassium, dissolved	mg/l	--	--	0.7	1.1	--	--
Silicon, dissolved	mg/l	--	--	5.3	4.24	--	--
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Sodium, dissolved	mg/l	--	200 [7]	101	166	9.4	15
Strontium, dissolved	mg/l	--	--	0.322	0.545	--	--
Sulfur, dissolved	mg/l	--	--	14.1	13	--	--
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	--	--
Tin, dissolved	mg/l	--	--			--	--
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	--	--
Vanadium, dissolved	mg/l	--	--	< 0.0001	0.0001	--	--
Zinc, dissolved	mg/l	--	5	< 0.005	0.008	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	--	0.002	--	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	588	897	339	405
Temperature (Field)	deg c	--	15	6.5	10.0	6	16.4
pH (Field)	-	--	--	7.1	7.1	7.1	6.9

				Sand & Silty Clay Un	Sand & Silty Clay Un	Silty Clay Unit	Silty Clay Unit
				Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
Parameter	**Unit**	(2) (1) **ODWQS(169/03)-Health**	(4) (3) **ODWQS-AO**	**G12-92** **01-May-2018** 12-92	**G12-92** **21-Aug-2018** G12-92	**G13-92** **01-May-2018**	**G13-92** **21-Aug-2018**
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	233	231	225	313
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	81	15	--	--
Chloride	mg/l	--	250	31.6	36.8	9	11.9
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	559	578	--	--
Dissolved Organic Carbon	mg/l	--	5	2.2	2.4	24.4	5
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210	237	240	325
Nitrate as N	mg/l	10	--	1.17	0.08	--	--
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.6	0.5	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.01	0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.84	0.25	0.1	0.15
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	20	23	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	303	310	266	368
Total Organic Carbon	mg/l	--	--	--	--	--	--

				Sand & Silty Clay Un	Sand & Silty Clay Un	Silty Clay Unit	Silty Clay Unit
				Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
		(2) (1)	(4) (3)	G12-92	G12-92	G13-92	G13-92
		ODWQS(169	ODWQS-	01-May-2018	21-Aug-2018	01-May-2018	21-Aug-2018
Parameter	Unit	/03)-Health	AO	12-92	G12-92		
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.04	0.03	--	--
Barium, dissolved	mg/l	1	--	0.018	0.023	--	--
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Boron, dissolved	mg/l	5	--	0.022	0.03	0.096	0.135
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015	--	--
Calcium, dissolved	mg/l	--	--	49	54.1	--	--
Chromium, dissolved	mg/l	0.05	--	< 0.001	< 0.001	--	--
Cobalt, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Copper, dissolved	mg/l	--	1	0.0007	0.001	--	--
Iron, dissolved	mg/l	--	0.3	< 0.005	< 0.005	0.031	0.16
Lead, dissolved	mg/l	0.01	--	0.00005	0.00004	--	--
Magnesium, dissolved	mg/l	--	--	21.2	24.8	--	--
Manganese, dissolved	mg/l	--	0.05	0.033	0.001	0.024	0.096
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	--	--
Molybdenum, dissolved	mg/l	--	--	0.0004	0.0005	--	--
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	--	--
Potassium, dissolved	mg/l	--	--	3.5	3.8	--	--
Silicon, dissolved	mg/l	--	--	4.72	5.34	--	--
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Sodium, dissolved	mg/l	--	200 (7)	38.2	28.4	20.8	23.9
Strontium, dissolved	mg/l	--	--	0.177	0.179	--	--
Sulfur, dissolved	mg/l	--	--	6.1	7.4	--	--
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	--	--
Tin, dissolved	mg/l	--	--	--		--	--
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	--	--
Vanadium, dissolved	mg/l	--	--	0.0002	0.0003	--	--
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	0.017	--	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	478	452	413	502
Temperature (Field)	deg c	--	15	4.7	7.3	4.9	13.1
pH (Field)	-	--	--	7.4	14.4	7.1	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Silty Clay Unit Moderate Impact G43-11 01-May-2018 43-11	Silty Clay Unit Moderate Impact G43-11 21-Aug-2018 43-11	Sandy Unit Mild Impact G8C-92 01-May-2018	Sandy Unit Mild Impact G8C-92 21-Aug-2018
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	255	336	208	249
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	2.03	2.35	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	--	--
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	370	1110	--	--
Chloride	mg/l	--	250	41.4	35.8	7.5	4.6
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	635	727	--	--
Dissolved Organic Carbon	mg/l	--	5	49.1	42	3.1	3.2
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	191	177	272	279
Nitrate as N	mg/l	10	--	< 0.05	0.14	--	--
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	12.6	28.4	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.33	0.03	< 0.01	< 0.01
Phosphorus	mg/l	--	--	4.72	28.5	2.18	0.5
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	1	2	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	346	410	270	280
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Silty Clay Unit Moderate Impact G43-11 01-May-2018 43-11	Silty Clay Unit Moderate Impact G43-11 21-Aug-2018 43-11	Sandy Unit Mild Impact G8C-92 01-May-2018	Sandy Unit Mild Impact G8C-92 21-Aug-2018
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.17	0.07	--	--
Barium, dissolved	mg/l	1	--	0.036	0.028	--	--
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Boron, dissolved	mg/l	5	--	0.294	0.419	0.029	0.03
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015	--	--
Calcium, dissolved	mg/l	--	--	46.5	42.8	--	--
Chromium, dissolved	mg/l	0.05	--	0.002	0.001	--	--
Cobalt, dissolved	mg/l	--	--	0.001	0.0006	< 0.0001	0.0002
Copper, dissolved	mg/l	--	1	0.0006	0.0005	--	--
Iron, dissolved	mg/l	--	0.3	3.19	1.53	< 0.005	< 0.005
Lead, dissolved	mg/l	0.01	--	0.00009	0.00011	--	--
Magnesium, dissolved	mg/l	--	--	18.3	17.1	--	--
Manganese, dissolved	mg/l	--	0.05	0.257	0.172	0.001	0.001
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	--	--
Molybdenum, dissolved	mg/l	--	--	0.0002	0.0003	--	--
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	--	--
Potassium, dissolved	mg/l	--	--	4.7	7.4	--	--
Silicon, dissolved	mg/l	--	--	7.58	8.51	--	--
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	--
Sodium, dissolved	mg/l	--	200 [7]	77.6	98.6	6.1	5.9
Strontium, dissolved	mg/l	--	--	0.231	0.198	--	--
Sulfur, dissolved	mg/l	--	--	1.6	1.6	--	--
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	--	--
Vanadium, dissolved	mg/l	--	--	0.0021	0.0019	--	--
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	--	--
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	0.012	< 0.001	--
Field Measurements							
Conductivity (Field)	uS/cm	--	--	543	611	330	407
Temperature (Field)	deg c	--	15	5.7	10.1	4.8	12.3
pH (Field)	-	--	--	6.6	7.4	7.2	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Mild Impact P2-90 01-May-2018 P2-90	Sandy Unit Mild Impact P2-90 21-Aug-2018 P2-90	Sandy Unit Mild Impact P4-90 01-May-2018 P4-90	Sandy Unit Mild Impact P4-90 21-Aug-2018 P4-90
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	101	93	109	231
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	63	24
Chloride	mg/l	--	250	2.6	1.5	6.2	4.5
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	--	--	298	490
Dissolved Organic Carbon	mg/l	--	5	3.5	3.4	2.9	2.8
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	17	10	146	252
Nitrate as N	mg/l	10	--	--	--	0.23	< 0.05
Nitrite as N	mg/l	1	--	--	--	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	0.9	0.3
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.04	0.04	0.02	< 0.01
Phosphorus	mg/l	--	--	3.98	2.6	6.23	0.79
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	22	22
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	124	106	154	262
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Mild Impact P2-90 01-May-2018 P2-90	Sandy Unit Mild Impact P2-90 21-Aug-2018 P2-90	Sandy Unit Mild Impact P4-90 01-May-2018 P4-90	Sandy Unit Mild Impact P4-90 21-Aug-2018 P4-90
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.03	0.05
Barium, dissolved	mg/l	1	--	--	--	0.033	0.044
Beryllium, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	< 0.005	< 0.005	0.018	0.054
Cadmium, dissolved	mg/l	0.005	--	--	--	< 0.000015	0.000021
Calcium, dissolved	mg/l	--	--	--	--	47.9	69.5
Chromium, dissolved	mg/l	0.05	--	--	--	< 0.001	0.003
Cobalt, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	0.0004
Copper, dissolved	mg/l	--	1	--	--	0.0016	0.0011
Iron, dissolved	mg/l	--	0.3	0.028	0.022	0.006	< 0.005
Lead, dissolved	mg/l	0.01	--	--	--	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	--	--	6.37	19.1
Manganese, dissolved	mg/l	--	0.05	0.001	0.001	0.001	0.018
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	0.0003	0.0002
Nickel, dissolved	mg/l	--	--	--	--	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	--	2.2	1.6
Silicon, dissolved	mg/l	--	--	--	--	2.76	4.18
Silver, dissolved	mg/l	--	--	--	--	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 [7]	51.8	43.1	4.8	7.4
Strontium, dissolved	mg/l	--	--	--	--	0.213	0.402
Sulfur, dissolved	mg/l	--	--	--	--	6.8	7.8
Thallium, dissolved	mg/l	--	--	--	--	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--		
Titanium, dissolved	mg/l	--	--	--	--	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	--	--	0.0008	0.0009
Zinc, dissolved	mg/l	--	5	--	--	< 0.005	0.016
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--	--	0.019
Field Measurements							
Conductivity (Field)	uS/cm	--	--	182	153	242	375
Temperature (Field)	deg c	--	15	6.5	7.1	3.4	7.0
pH (Field)	-	--	--	7.7	10.2	7.1	11.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Sandy Unit Mild Impact G18-92 01-May-2018 G18-92	Sandy Unit Mild Impact G18-92 21-Aug-2018 G18-92	Sandy Unit Background G26-94 01-May-2018 G26-94	Sandy Unit Background G26-94 21-Aug-2018 G26-94
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	111	233	25	26
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.08	< 0.01	0.02	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	82	51	55	10
Chloride	mg/l	--	250	7.9	12	3.8	3.2
Chloride	mg/l			--	--	--	--
Conductivity	µmho/c	--	--	334	602	96	89.5
Dissolved Organic Carbon	mg/l	--	5	2.4	5.5	2.4	2.3
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	165	293	34	23
Nitrate as N	mg/l	10	--	2.39	1.21	0.08	0.39
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	0.9	1.4	0.6	0.2
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.04	< 0.01	0.08	0.02
Phosphorus	mg/l	--	--	1.48	0.89	4.74	0.48
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	33	64	12	10
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	174	336	48	47
Total Organic Carbon	mg/l	--	--	--	--	--	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	Sandy Unit Mild Impact G18-92 01-May-2018 G18-92	Sandy Unit Mild Impact G18-92 21-Aug-2018 G18-92	Sandy Unit Background G26-94 01-May-2018 G26-94	Sandy Unit Background G26-94 21-Aug-2018 G26-94
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.03	0.05	0.02	0.01
Barium, dissolved	mg/l	1	--	0.034	0.058	0.008	0.007
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.107	0.26	0.012	0.009
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015	< 0.000015	< 0.000015
Calcium, dissolved	mg/l	--	--	47.2	84.2	8.91	6.02
Chromium, dissolved	mg/l	0.05	--	0.003	< 0.001	< 0.001	< 0.001
Cobalt, dissolved	mg/l	--	--	0.0001	0.0003	0.0002	< 0.0001
Copper, dissolved	mg/l	--	1	0.0003	0.0011	0.0009	0.0011
Iron, dissolved	mg/l	--	0.3	0.088	0.051	0.007	0.006
Lead, dissolved	mg/l	0.01	--	< 0.00002	0.00004	0.00002	0.00008
Magnesium, dissolved	mg/l	--	--	11.5	20	2.74	1.97
Manganese, dissolved	mg/l	--	0.05	0.059	0.044	0.052	0.005
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	3.5	5.9	0.9	1
Silicon, dissolved	mg/l	--	--	4.93	7.39	2.98	4.7
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 [7]	4.5	10.3	5.4	8.6
Strontium, dissolved	mg/l	--	--	0.248	0.427	0.099	0.067
Sulfur, dissolved	mg/l	--	--	9.8	21.8	3.5	3.3
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0002	0.0003	0.0001	0.0002
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	< 0.005	< 0.005
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	--	< 0.01	--	0.027
Field Measurements							
Conductivity (Field)	uS/cm	--	--	777	443	80	77
Temperature (Field)	deg c	--	15	4.7	16.4	5	12.8
pH (Field)	-	--	--	6.8	6.8	8.1	7.7

APPENDIX H-2

Voc's

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 17-Jun-2016 P1-91	P1-91 23-Aug-2016 P1-91	P1-91 02-May-2017 P1-91	P1-91 21-Sep-2017 P1-91	P1-91 01-May-2018 P1-91	P1-91 21-August-2018 P1-91	P1-91 P1-91	P1-91 P1-91
Semi-VOCs											
4-Methyl-2-pentanone	ug/l	--	--	--	--	--	--	--	--		
Hydroxide	ug/l	--	--	--	--	--	--	--	--		
Styrene	ug/l	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
VOCs											
1,1,1,2-Tetrachloroethane	ug/l	--	--	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,1-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,2,2-Tetrachloroethane	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
1,1,2-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1-Dichloroethane	ug/l	--	--	0.2	< 0.1	< 0.1	0.2	0.2	0.2		
Trichloroethylene	ug/l	5	--	< 0.1	< 0.1	< 0.1	--	< 0.1	< 0.1		
1,1-Dichloroethylene	ug/l	14	--	--	--	--	--	--	--		
1,2-Dibromoethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichlorobenzene	ug/l	200	3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloroethane	ug/l	5	--	0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloropropane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichlorobenzene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3,5-Trimethylbenzene	ug/l	--	--	--	--	--	--	--	--		
Dichloropropene 1,3- cis+trans	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichloropropene, Total	ug/l	--	--	--	--	--	--	--	--		
1,4-Dichlorobenzene	ug/l	5	1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Methyl Ethyl Ketone	ug/l	--	--	< 1	< 1	2	< 1	< 1	< 1		
2-Hexanone	ug/l	--	--	--	--	--	--	--	--		
Acetone	ug/l	--	--	8	12	14	8	< 2	5		
Benzene	ug/l	5	--	1.3	1.5	< 0.5	1.6	1.2	1.2		
Bromodichloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromoform	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromomethane	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Carbon Tetrachloride	ug/l	5	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Chlorobenzene	ug/l	80	30	0.2	0.3	< 0.2	0.3	0.3	0.2		
Chloroform	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Chloroethane	ug/l	--	--	--	--	--	--	--	--		
cis-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
cis-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Chloromethane	ug/l	--	--	--	--	--	--	--	--		
Dibromochloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Dichlorodifluoromethane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Ethylbenzene	ug/l	--	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylene, m,p,o-	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
m,p-Xylenes	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
Methyl tert-Butyl Ether	ug/l	--	--	< 1	< 1	1	< 1	2	2		
Methyl Isobutyl Ketone	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Methylene Chloride	ug/l	50	--	< 0.3	< 0.3	< 0.3	0.4	< 0.3	< 0.3		
n-Hexane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
o-Xylene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Tetrachloroethylene	ug/l	30	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Toluene	ug/l	--	24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloroethene, 1,1-	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Trichloroethene	ug/l	5	--	--	--	--	< 0.1	--	--		
Trichlorofluoromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Vinyl Chloride	ug/l	2	--	0.2	0.3	< 0.2	0.4	0.2	0.3		
Xylenes, Total	ug/l	--	300	--	--	--	--	--	--		
Surrogate Recovery (%)											
4-Bromoflourobenzene	%	--	--	--	--	99	105	108	104		
D4-1,2-Dichloroethane	%	--	--	--	--	95	99	67	102		
D8-Toluene	%	--	--	--	--	103	99	95	99		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 16-Jun-2016	P5B-91 23-Aug-2016	P5B-91 02-May-2017	P5B-91 21-Sep-2017	P5B-91 01-May-2018	P5B-91 21-August-2018	P5B-91	P5B-91
Semi-VOCs											
4-Methyl-2-pentanone	ug/l	--	--	--	--	--	--	--	--		
Hydroxide	ug/l	--	--	--	--	--	--	--	--		
Styrene	ug/l	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
VOCs											
1,1,1,2-Tetrachloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,1-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,2,2-Tetrachloroethane	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
1,1,2-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1-Dichloroethane	ug/l	--	--	0.1	0.2	< 0.1	0.2	0.1	0.1		
Trichloroethylene	ug/l	5	--	< 0.1	< 0.1	< 0.1	--	< 0.1	< 0.1		
1,1-Dichloroethylene	ug/l	14	--	--	--	--	--	--	--		
1,2-Dibromoethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichlorobenzene	ug/l	200	3	< 0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1		
1,2-Dichloroethane	ug/l	5	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloropropane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichlorobenzene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3,5-Trimethylbenzene	ug/l	--	--	--	--	--	--	--	--		
Dichloropropene 1,3- cis+trans	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichloropropene, Total	ug/l	--	--	--	--	--	--	--	--		
1,4-Dichlorobenzene	ug/l	5	1	0.3	0.3	< 0.2	0.4	0.5	0.4		
Methyl Ethyl Ketone	ug/l	--	--	< 1	2	< 1	2	< 1	1		
2-Hexanone	ug/l	--	--	--	--	--	--	--	--		
Acetone	ug/l	--	--	14	28	6	19	< 2	13		
Benzene	ug/l	5	--	1.2	1.2	0.6	2.1	1.3	1.2		
Bromodichloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromoform	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromomethane	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Carbon Tetrachloride	ug/l	5	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Chlorobenzene	ug/l	80	30	< 0.2	0.3	< 0.2	0.3	0.3	0.3		
Chloroform	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Chloroethane	ug/l	--	--	--	--	--	--	--	--		
cis-1,2-Dichloroethene	ug/l	--	--	0.1	< 0.1	< 0.1	0.1	< 0.1	< 0.1		
cis-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Chloromethane	ug/l	--	--	--	--	--	--	--	--		
Dibromochloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Dichlorodifluoromethane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Ethylbenzene	ug/l	--	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylene, m,p,o-	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
m,p-Xylenes	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
Methyl tert-Butyl Ether	ug/l	--	--	< 1	< 1	1	< 1	< 1	< 1		
Methyl Isobutyl Ketone	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Methylene Chloride	ug/l	50	--	< 0.3	< 0.3	< 0.3	0.6	< 0.3	< 0.3		
n-Hexane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
o-Xylene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Tetrachloroethylene	ug/l	30	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Toluene	ug/l	--	24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloroethene, 1,1-	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Trichloroethene	ug/l	5	--	--	--	--	< 0.1	--	--		
Trichlorofluoromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Vinyl Chloride	ug/l	2	--	< 0.2	< 0.2	< 0.2	0.3	< 0.2	< 0.2		
Xylenes, Total	ug/l	--	300	--	--	--	--	--	--		
Surrogate Recovery (%)											
4-Bromoflourobenzene	%	--	--	--	--	100	106	109	109		
D4-1,2-Dichloroethane	%	--	--	--	--	95	100	69	69		
D8-Toluene	%	--	--	--	--	103	99	95	95		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 17-Jun-2016	P6-91 23-Aug-2016	P6-91 02-May-2017	P6-91 21-Sep-2017	P6-91 01-May-2018	P6-91 21-Aug-2018	P6-91	P6-91
				P6-91	P6-91	P6-91	P6-91	P6-91	P6-91	P6-91	P6-91
Semi-VOCs											
4-Methyl-2-pentanone	ug/l	--	--	--	--	--	--	--	--		
Hydroxide	ug/l	--	--	--	--	--	--	--	--		
Styrene	ug/l	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
VOCs											
1,1,1,2-Tetrachloroethane	ug/l	--	--	0.3	0.2	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,1-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,2,2-Tetrachloroethane	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
1,1,2-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1-Dichloroethane	ug/l	--	--	0.2	0.2	< 0.1	0.3	0.3	0.2		
Trichloroethylene	ug/l	5	--	< 0.1	< 0.1	< 0.1	--	< 0.1	< 0.1		
1,1-Dichloroethylene	ug/l	14	--	--	--	--	--	--	--		
1,2-Dibromoethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichlorobenzene	ug/l	200	3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloroethane	ug/l	5	--	14.9	5.1	7.3	4.8	2.2	1.2		
1,2-Dichloropropane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichlorobenzene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3,5-Trimethylbenzene	ug/l	--	--	--	--	--	--	--	--		
Dichloropropene 1,3- cis+trans	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichloropropene, Total	ug/l	--	--	--	--	--	--	--	--		
1,4-Dichlorobenzene	ug/l	5	1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2		
Methyl Ethyl Ketone	ug/l	--	--	< 1	< 1	6	< 1	< 1	< 1		
2-Hexanone	ug/l	--	--	--	--	--	--	--	--		
Acetone	ug/l	--	--	8	9	24	9	< 2	6		
Benzene	ug/l	5	--	1.8	4.2	< 0.5	2.8	2.1	< 0.5		
Bromodichloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromoform	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromomethane	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Carbon Tetrachloride	ug/l	5	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Chlorobenzene	ug/l	80	30	0.6	1	< 0.2	1.4	1.1	1.3		
Chloroform	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Chloroethane	ug/l	--	--	--	--	--	--	--	--		
cis-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
cis-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Chloromethane	ug/l	--	--	--	--	--	--	--	--		
Dibromochloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Dichlorodifluoromethane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Ethylbenzene	ug/l	--	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylene, m,p,o-	ug/l	--	--	< 0.4	1	< 0.4	1.5	< 0.4	1.8		
m,p-Xylenes	ug/l	--	--	< 0.4	0.7	< 0.4	1	< 0.4	1.2		
Methyl tert-Butyl Ether	ug/l	--	--	< 1	< 1	2	2	3	1		
Methyl Isobutyl Ketone	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Methylene Chloride	ug/l	50	--	< 0.3	< 0.3	< 0.3	0.5	< 0.3	< 0.3		
n-Hexane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
o-Xylene	ug/l	--	--	< 0.1	0.3	< 0.1	0.5	< 0.1	0.6		
Tetrachloroethylene	ug/l	30	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Toluene	ug/l	--	24	0.6	0.9	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloroethene, 1,1-	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Trichloroethene	ug/l	5	--	--	--	--	< 0.1	--	--		
Trichlorofluoromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Vinyl Chloride	ug/l	2	--	< 0.2	< 0.2	< 0.2	0.2	< 0.2	< 0.2		
Xylenes, Total	ug/l	--	300	--	--	--	--	--	--		
Surrogate Recovery (%)											
4-Bromoflourobenzene	%	--	--	--	--	100	106	108	105		
D4-1,2-Dichloroethane	%	--	--	--	--	95	102	66	102		
D8-Toluene	%	--	--	--	--	103	99	94	99		

Parameter	Unit	(2) (1) ODWQS(169/03)-	(4) (3) ODWQS-AO	Trip Blank 17-Jun-2016	Trip Blank 23-Aug-2016	Trip Blank 02-May-2017	Trip Blank 21-Sep-2017	Trip Blank 01-May-2018	Trip Blank 21-Aug-2018	Trip Blank	Trip Blank
Semi-VOCs											
4-Methyl-2-pentanone	ug/l	--	--	--	--	--	--	--	--		
Hydroxide	ug/l	--	--	--	--	--	--	--	--		
Styrene	ug/l	--	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
VOCs											
1,1,1,2-Tetrachloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,1-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1,2,2-Tetrachloroethane	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
1,1,2-Trichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,1-Dichloroethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Trichloroethylene	ug/l	5	--	< 0.1	< 0.1	< 0.1	--	< 0.1	< 0.1		
1,1-Dichloroethylene	ug/l	14	--	--	--	--	--	--	--		
1,2-Dibromoethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichlorobenzene	ug/l	200	3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloroethane	ug/l	5	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,2-Dichloropropane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichlorobenzene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3,5-Trimethylbenzene	ug/l	--	--	--	--	--	--	--	--		
Dichloropropene 1,3- cis+trans	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
1,3-Dichloropropene, Total	ug/l	--	--	--	--	--	--	--	--		
1,4-Dichlorobenzene	ug/l	5	1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Methyl Ethyl Ketone	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
2-Hexanone	ug/l	--	--	--	--	--	--	--	--		
Acetone	ug/l	--	--	< 2	< 2	< 2	< 2	< 2	< 2		
Benzene	ug/l	5	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Bromodichloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromoform	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Bromomethane	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Carbon Tetrachloride	ug/l	5	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Chlorobenzene	ug/l	80	30	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Chloroform	ug/l	--	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
Chloroethane	ug/l	--	--	--	--	--	--	--	--		
cis-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
cis-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Chloromethane	ug/l	--	--	--	--	--	--	--	--		
Dibromochloromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Dichlorodifluoromethane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Ethylbenzene	ug/l	--	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylene, m,p,o-	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
m,p-Xylenes	ug/l	--	--	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
Methyl tert-Butyl Ether	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Methyl Isobutyl Ketone	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
Methylene Chloride	ug/l	50	--	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3		
n-Hexane	ug/l	--	--	< 1	< 1	< 1	< 1	< 1	< 1		
o-Xylene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Tetrachloroethylene	ug/l	30	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Toluene	ug/l	--	24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloroethene, 1,1-	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,2-Dichloroethene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
trans-1,3-Dichloropropene	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Trichloroethene	ug/l	5	--	--	--	--	< 0.1	--	--		
Trichlorofluoromethane	ug/l	--	--	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
Vinyl Chloride	ug/l	2	--	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Xylenes, Total	ug/l	--	300	--	--	--	--	--	--		
Surrogate Recovery (%)											
4-Bromoflourobenzene	%	--	--	--	--	100	106	108	104		
D4-1,2-Dichloroethane	%	--	--	--	--	95	101	69	104		
D8-Toluene	%	--	--	--	--	103	99	96	99		

Footnotes:
Tables should be read in conjunction with the accompanying document.
< value = Indicates parameter not detected above laboratory method detection limit.
> value = Indicates parameter detected above equipment analytical range.
-- Chemical not analyzed or criteria not defined.
Grey background indicates exceedances.
(1) Ontario Drinking Water Quality Standards - Health Based Standards (June 2003, revised June 2006).
(2) Bold Font = Parameter concentration greater than ODWQS(169/03)-Health

(3) Ontario Drinking Water Quality Standards - Aesthetic Objectives. Aesthetic Objectives are established for parameters that may impair the taste, odour or colour of water or which may interfere with good water quality control practices. For certain parameters, both aesthetic objectives and health-related MACs have been derived (June 2003, revised June 2006).
(4) Underlined Font = Parameter concentration greater than ODWQS-AO
(5) No sample was collected.
(6) Monitoring location has been destroyed and can no longer be sampled.
(7) Monitoring location was dry during this sampling event. No sample was collected.
(8) Insufficient water for sample collection or analysis at this monitoring location during sampling event.
(9) Insufficient sample volume was collected for analysis.
(10) Field Parameters were not measured
(11) Monitoring location was damaged and could not be sampled.
(12) Metals: Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.
(13) Inoperable
(14) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
(15) Sample IDs for G42-10 and G43-11 were reversed.
(16) Nitrite/Nitrate: Due to the colour interferences, some sample required dilution. Detection limits were adjusted accordingly.
(17) Nitrite/Nitrate: Due to the colour interferences, sample required dilution. Detection limits were adjusted accordingly.
(18) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(19) VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
(20) VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(21) Metal Analysis:RDLs of Chromium and Nickel were adjusted due to high concentrations of Carbon and Calcium respectively.
(22) VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(23) Metal Analysis:RDL of Nickel was adjusted due to high concentration of Calcium.VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(24) Location of duplicate sample not noted in field notes. Field technician indicated that the duplicate was taken at either P4-90 or 29-97. Based on comparison of sampling data from the parent samples at these locations on the same day, it appears that the duplicate sample was taken at P4-90.
(25) Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(26) VOC Analysis:Due to foaming sample required dilution. The DLs were adjusted accordingly.
(27) VOC Analysis:The detection limits was raised due to decrease instrument sensitivity.
(28) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly.
(29) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(30) VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly.

APPENDIX H-3

Historical Data (PDF Only)

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 09-Aug-1991	P1-91 04-Dec-1991	P1-91 01-May-1992	P1-91 07-Sep-1992	P1-91 27-Nov-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	244	198	182	214
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	<0.1	0.17	0.16
Bicarbonate	mg/l	--	--	--	297	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	1	3	<1
Bromide	mg/l	--	--	--	--	0.8	1.3	1.4
Carbonate (CO3)	mg/l	--	--	--	<1	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	1628	16	25	13
Chloride	mg/l	--	250	63	51	62	46	55
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	6.9	--	--	--
Fluoride	mg/l	1.5	--	--	--	0.06	0.07	0.06
Hardness, Calcium Carbonate	mg/l	--	80-100	--	251	287	211	276
Nitrate as N	mg/l	10	--	--	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	4.82	0.23	0.57	0.35
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	0.23	0.4	0.19
Phosphate	mg/l	--	--	--	2.72	0.24	0.31	0.17
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	--	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	51	60	57	50	61
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	504	368	390	370	370
Total Organic Carbon	mg/l	--	--	--	--	5.9	5.9	5.9
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	<0.03	0.18	<0.01
Barium, dissolved	mg/l	1	--	--	--	0.03	0.05	0.04
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	0.15	0.33	0.18
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	--	46	59	45	63
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	<0.01	0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	--	<0.05	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.06	22.99	6.45	10.03	9.82

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 09-Aug-1991	P1-91 04-Dec-1991	P1-91 01-May-1992	P1-91 07-Sep-1992	P1-91 27-Nov-1992
Lead, dissolved	mg/l	0.01	--	--	<0.05	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	--	33	34	24	29
Manganese, dissolved	mg/l	--	0.05	<0.05	0.6	0.47	0.56	0.54
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.1	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	--	0.16	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	--	5	3	3	5
Silicon, dissolved	mg/l	--	--	--	--	7.8	11.2	10.1
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	63	37	44	43	37
Strontium, dissolved	mg/l	--	--	--	--	0.12	0.17	0.23
Sulfur, dissolved	mg/l	--	--	--	--	15	19	22
Thallium, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	--	0.61	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.002	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	788	611	900	700	600
Temperature (Field)	deg c	--	15	--	--	8	8	7
pH (Field)	-	--	--	--	6.55	6.4	6.5	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 03-May-1993	P1-91 10-Nov-1993	P1-91 03-Jun-1994	P1-91 09-Sep-1994	P1-91 24-Nov-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	212	162	209	226	220
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	0.17	0.11	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	2	1	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	21	20	18	20	16
Chloride	mg/l	--	250	56	40	77	81	68
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.6	5.9	7.9	8.2	7.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	242	170	278	253	229
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	0.54	0.5	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	0.37	0.39	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	0.55	0.8	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	36	36	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	410	310	470	420	400
Total Organic Carbon	mg/l	--	--	8.2	6.9	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	<0.03	<0.03	<0.03	--
Barium, dissolved	mg/l	1	--	0.04	0.03	0.04	0.04	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Boron, dissolved	mg/l	5	--	0.21	0.23	0.21	0.33	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.00015	<0.00015	--
Calcium, dissolved	mg/l	--	--	54	40	62	60	--
Chromium, dissolved	mg/l	0.05	--	<0.01	0.02	<0.01	0.02	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.0004	<0.0004	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.005	<0.005	--
Iron, dissolved	mg/l	--	0.3	8.23	5.14	8.44	8.81	7.91

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 03-May-1993	P1-91 10-Nov-1993	P1-91 03-Jun-1994	P1-91 09-Sep-1994	P1-91 24-Nov-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	--
Magnesium, dissolved	mg/l	--	--	26	17	30	25	--
Manganese, dissolved	mg/l	--	0.05	0.49	0.36	0.48	0.49	0.44
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	<0.0002	<0.0002	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Nickel, dissolved	mg/l	--	--	0.04	<0.01	<0.01	<0.01	--
Potassium, dissolved	mg/l	--	--	2	2	2	2	--
Silicon, dissolved	mg/l	--	--	8.8	6.4	5.6	5.2	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.0001	0.0007	--
Sodium, dissolved	mg/l	--	200 (7)	47	41	37	45	44
Strontium, dissolved	mg/l	--	--	0.22	<0.01	0.2	0.183	0.19
Sulfur, dissolved	mg/l	--	--	20	20	11	15	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.005	<0.005	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.007	<0.007	--
Zinc, dissolved	mg/l	--	5	<0.01	0.02	<0.01	<0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.001	<0.001	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	700	700	650	750	750
Temperature (Field)	deg c	--	15	7	6	8	11.5	9
pH (Field)	-	--	--	5.7	6.8	6.5	6.5	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 04-Jun-1995	P1-91 11-Sep-1995	P1-91 07-Nov-1995	P1-91 16-Jul-1996	P1-91 21-Nov-1996
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	250	230	253	270	205
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.15	0.11	--	0.14	0.13
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	2	--	<1	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	27	28	27	29
Chloride	mg/l	--	250	83	86	87	90	65
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	8.5	9.3	9.1	10.5	8.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	286	247	291	276	240
Nitrate as N	mg/l	10	--	<0.1	<0.1	--	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	--	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.4	0.58	--	0.61	0.53
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.25	0.47	--	0.47	0.4
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.15	0.25	--	0.41	1.31
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	33	31	--	30	31
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	468	464	476	472	388
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.34	0.32	--	0.29	0.44
Barium, dissolved	mg/l	1	--	0.05	0.05	--	0.05	0.04
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	0.01
Boron, dissolved	mg/l	5	--	0.27	0.35	--	0.3	0.21
Cadmium, dissolved	mg/l	0.005	--	<0.00015	<0.00015	--	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	65	56	--	61	53
Chromium, dissolved	mg/l	0.05	--	**0.27**	<0.01	--	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	0.0007	0.0036	--	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.005	<0.005	--	<0.005	<0.005
Iron, dissolved	mg/l	--	0.3	11.8	8.99	10.7	8.42	7.38

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 04-Jun-1995	P1-91 11-Sep-1995	P1-91 07-Nov-1995	P1-91 16-Jul-1996	P1-91 21-Nov-1996
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	--	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	30	26	--	30	26
Manganese, dissolved	mg/l	--	0.05	0.57	0.52	0.65	0.47	0.44
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	0.0006	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.03
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	3	4	--	3	3
Silicon, dissolved	mg/l	--	--	7.2	9	--	7.1	8.2
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	--	<0.01	<0.001
Sodium, dissolved	mg/l	--	200 (7)	52	67	53	61	48
Strontium, dissolved	mg/l	--	--	0.211	0.215	0.24	0.221	0.189
Sulfur, dissolved	mg/l	--	--	13	12	--	9	11
Thallium, dissolved	mg/l	--	--	<0.005	<0.005	--	0.2	<0.2
Tin, dissolved	mg/l	--	--	--	--	--	--	<0.05
Titanium, dissolved	mg/l	--	--	0.01	<0.01	--	<0.01	0.02
Vanadium, dissolved	mg/l	--	--	<0.007	<0.007	--	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	--	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	--	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	800	900	850	880	430
Temperature (Field)	deg c	--	15	10	12	13	9	6
pH (Field)	-	--	--	6.5	6.6	7.2	7.2	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 10-Jun-1997	P1-91 11-Sep-1997	P1-91 11-Jun-1998	P1-91 19-Aug-1998	P1-91 25-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	276	272	300	252	332
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.19	0.09	0.16	0.08	0.06
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	3	1	3	6	2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	37	31	34	27	32
Chloride	mg/l	--	250	95	88	90	84	101
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10.3	10.6	11	10	11.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	281	286	327	200	321
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.56	0.49	0.67	0.53	0.59
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.37	0.4	0.51	0.45	0.53
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.09	0.14	2.26	0.49	0.74
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	24	23	28	33	18
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	492	504	516	464	528
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.33	0.23	0.43	0.45	<0.03
Barium, dissolved	mg/l	1	--	0.05	0.04	0.05	0.09	0.05
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.25	0.28	0.29	0.28	0.28
Cadmium, dissolved	mg/l	0.005	--	**0.007**	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	65	65	75	67	74
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	0.014	0.011	<0.005	<0.005	<0.005
Iron, dissolved	mg/l	--	0.3	8.37	8.67	11	0.35	9.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 10-Jun-1997	P1-91 11-Sep-1997	P1-91 11-Jun-1998	P1-91 19-Aug-1998	P1-91 25-May-1999
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	29	30	34	8	33
Manganese, dissolved	mg/l	--	0.05	0.5	0.49	0.58	0.9	0.55
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.03	<0.03	<0.03	<0.03	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	3	3	5	4	3
Silicon, dissolved	mg/l	--	--	7.7	6.5	6.1	6.1	7.6
Silver, dissolved	mg/l	--	--	<0.004	0	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	53	65	70	58	67
Strontium, dissolved	mg/l	--	--	0.21	0.227	0.256	0.25	0.25
Sulfur, dissolved	mg/l	--	--	8	8	10	12	7
Thallium, dissolved	mg/l	--	--	<0.2	<0.2	<0.2	<0.2	<0.2
Tin, dissolved	mg/l	--	--	--	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	<0.002	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	580	240	540	800	740
Temperature (Field)	deg c	--	15	3.5	12	10	10	6
pH (Field)	-	--	--	6.9	6.3	6.7	7.2	6.92

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 31-Aug-1999	P1-91 31-May-2000	P1-91 18-Aug-2000	P1-91 28-May-2001	P1-91 08-Aug-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	329	301	310	311	515
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.61	0.16	0.11	0.07	0.07
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	1	<1	3	-- (20)
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	43	23	28	49	-- (20)
Chloride	mg/l	--	250	88	89	89	86	103
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	15.3	9.7	10.1	8.5	12.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	390	307	332	300	561
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	-- (20)
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	-- (20)
Nitrogen, Total Kjeldahl	mg/l	--	--	0.7	0.37	1.81	0.53	-- (20)
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.09	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.52	0.96	0.03	0.29	0.02
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	<0.01
Sulphate	mg/l	--	500 (6)	19	20	24	15	-- (20)
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	-- (20)
Total Dissolved Solids	mg/l	--	500	528	520	532	508	768
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	0.13	0.27	<0.05	0.06
Barium, dissolved	mg/l	1	--	0.06	0.05	0.05	0.04	0.07
Beryllium, dissolved	mg/l	--	--	<0.01	<0.002	<0.002	<0.002	<0.002
Boron, dissolved	mg/l	5	--	0.32	0.24	0.25	0.22	0.3
Cadmium, dissolved	mg/l	0.005	--	<0.005	<0.0001	<0.0001	0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	95	70	77	69	142
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	**0.061**	<0.001
Cobalt, dissolved	mg/l	--	--	<0.01	0.2	0.0004	0.0004	<0.0002
Copper, dissolved	mg/l	--	1	<0.005	<0.01	<0.001	<0.001	<0.001
Iron, dissolved	mg/l	--	0.3	10.6	8.43	9.28	8.6	16.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 31-Aug-1999	P1-91 31-May-2000	P1-91 18-Aug-2000	P1-91 28-May-2001	P1-91 08-Aug-2001
Lead, dissolved	mg/l	0.01	--	<0.002	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	37	32	34	31	50
Manganese, dissolved	mg/l	--	0.05	0.58	0.52	0.52	0.52	0.89
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0001	<0.0001	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	<0.01	0.03	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	-- (20)
Potassium, dissolved	mg/l	--	--	8	3	3	3	4
Silicon, dissolved	mg/l	--	--	6.5	7.52	7.52	8.16	7.09
Silver, dissolved	mg/l	--	--	0.02	<0.001	<0.0001	0.0006	-- (20)
Sodium, dissolved	mg/l	--	200 (7)	56	51	53	56	70
Strontium, dissolved	mg/l	--	--	0.301	0.238	0.264	0.254	0.49
Sulfur, dissolved	mg/l	--	--	7	9	9	--	--
Thallium, dissolved	mg/l	--	--	<0.5	<0.001	<0.001	<0.001	<0.001
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	0.003	0.001	<0.001	<0.001
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	-- (20)
Field Measurements								
Conductivity (Field)	uS/cm	--	--	550	800	855	300	1050
Temperature (Field)	deg c	--	15	9	6	11.9	9	12
pH (Field)	-	--	--	5.6	7.08	7	6.8	7.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 03-Apr-2002	P1-91 06-Aug-2002	P1-91 13-May-2003	P1-91 26-Aug-2003	P1-91 26-May-2004
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	366	376	728	727	600
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.38	0.12	0.12	0.08	0.13
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	3	2	5	3	3.4
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	29	25	44	46	51
Chloride	mg/l	--	250	91	97	132	135	126
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9.4	10.1	16.8	17.5	12.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	384	417	754	718	580.4
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.2
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.2
Nitrogen, Total Kjeldahl	mg/l	--	--	0.57	0.68	1.04	1.12	0.9
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.49	0.45	0.41	0.37	<0.05
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.07	0.13	0.1	0.008
Sulphate	mg/l	--	500 (6)	18	29	60	36	29.5
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	629	663	1070	1080	880
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.05	0.01	0.02	0.02	0.009
Barium, dissolved	mg/l	1	--	0.04	0.06	0.09	0.09	0.098
Beryllium, dissolved	mg/l	--	--	<0.002	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.15	0.22	0.32	0.41	0.32
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.001	<0.001	<0.0001
Calcium, dissolved	mg/l	--	--	86	96	170	169	138
Chromium, dissolved	mg/l	0.05	--	0.019	0.006	<0.01	<0.01	<0.005
Cobalt, dissolved	mg/l	--	--	0.0002	0.0004	<0.002	<0.002	0.0002
Copper, dissolved	mg/l	--	1	<0.001	0.001	<0.01	<0.01	0.0016
Iron, dissolved	mg/l	--	0.3	5.45	10.9	20.6	19.6	14.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 03-Apr-2002	P1-91 06-Aug-2002	P1-91 13-May-2003	P1-91 26-Aug-2003	P1-91 26-May-2004
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.01	<0.01	<0.0005
Magnesium, dissolved	mg/l	--	--	41	43	80	72	57
Manganese, dissolved	mg/l	--	0.05	0.55	0.61	1.02	0.964	0.846
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.01	0.006	<0.005	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	<0.01	<0.005	<0.005	<0.005	0.004
Potassium, dissolved	mg/l	--	--	3	4	4	5	3.7
Silicon, dissolved	mg/l	--	--	7.55	7.86	7.3	6.6	7.09
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.001	<0.001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	65	62	85	93	75.5
Strontium, dissolved	mg/l	--	--	0.243	0.359	0.57	0.632	0.589
Sulfur, dissolved	mg/l	--	--	--	--	--	--	13
Thallium, dissolved	mg/l	--	--	<0.001	<0.001	<0.01	<0.01	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	<0.001
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	0.006	0.002	<0.01	<0.01	0.0025
Zinc, dissolved	mg/l	--	5	<0.01	0.009	<0.005	<0.005	0.022
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	0.003
Field Measurements								
Conductivity (Field)	uS/cm	--	--	900	1050	810	790	1350
Temperature (Field)	deg c	--	15	5	15	6	12	8.2
pH (Field)	-	--	--	6	7.1	6.4	6.6	6.76

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 30-Aug-2004	P1-91 26-May-2005	P1-91 25-Aug-2005	P1-91 31-May-2006	P1-91 07-Sep-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	737	796	984	1190	1580
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.1	0.23	0.11	0.1	0.17
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5.2	5	10	241	1250
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	60	64	86	537	1860
Chloride	mg/l	--	250	146	180	222	274	343
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	22.4	24.6	32	172	669
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	772.4	851	1090	1320	1780
Nitrate as N	mg/l	10	--	<0.2	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.2	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	2.06	1.44	1.81	3	4.15
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.06	0.29	0.19	0.19	0.17
Phosphorus (dissolved reactive)	mg/l	--	--	<0.003	0.09	0.18	0.1	0.18
Sulphate	mg/l	--	500 (6)	37.1	16	13	2	4
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1016	1220	1500	1820	2440
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.005	<0.01	<0.01	0.03	<0.01
Barium, dissolved	mg/l	1	--	0.116	0.14	0.15	0.19	0.22
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.378	0.32	0.47	0.58	0.9
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	178	212	263	323	423
Chromium, dissolved	mg/l	0.05	--	<0.005	0.007	0.014	0.008	<0.005
Cobalt, dissolved	mg/l	--	--	0.0003	0.0005	0.0007	0.0009	0.0011
Copper, dissolved	mg/l	--	1	<0.0005	<0.001	0.001	0.001	0.001
Iron, dissolved	mg/l	--	0.3	20.1	25.2	27	24.4	44.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 30-Aug-2004	P1-91 26-May-2005	P1-91 25-Aug-2005	P1-91 31-May-2006	P1-91 07-Sep-2006
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	79.2	78	105	125	176
Manganese, dissolved	mg/l	--	0.05	1.06	1.03	1.17	1.37	2.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.005	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	0.007	0.012	0.019	0.019	0.023
Potassium, dissolved	mg/l	--	--	4.4	4	5	5	6
Silicon, dissolved	mg/l	--	--	7.96	10.5	11.1	13.8	11.4
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	88.8	83	99	92	141
Strontium, dissolved	mg/l	--	--	0.781	0.813	0.638	1.59	1.93
Sulfur, dissolved	mg/l	--	--	16.4	5.3	4.3	0.7	1.3
Thallium, dissolved	mg/l	--	--	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	0.12	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.0037	0.013	0.031	0.008	0.027
Zinc, dissolved	mg/l	--	5	<0.005	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	<0.001	<0.001	0.089	0.24
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1610	1880	1800	2800	1910
Temperature (Field)	deg c	--	15	15	9	16.4	11	15
pH (Field)	-	--	--	6.6	6.8	6.4	6.4	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 29-May-2007	P1-91 28-Aug-2007	P1-91 01-May-2008	P1-91 07-Aug-2008	P1-91 15-Apr-2009 P-1-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	2040	2300	2070	1380	1430
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.04	0.07	0.82	1.4
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1170	1220	806	41	9
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	1540	1810	1220	227	210
Chloride	mg/l	--	250	416	433	376	343	340
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	634	672	409	66.5	62.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	2160	2450	2040	1230	1500
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	11.8	8.55	6.24	6.14	5.7
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.29	0.22	0.15	0.08	0.13
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.25	<0.01	0.02	<0.01
Sulphate	mg/l	--	500 (6)	3	1	3	6	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2890	3330	2910	2070	2050
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.01	<0.01	<0.1	<0.01	0.007
Barium, dissolved	mg/l	1	--	0.33	0.39	0.3	0.22	0.25
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.01	<0.001	<0.0005
Boron, dissolved	mg/l	5	--	1.8	2.43	3.2	1.7	1.6
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	503	626	508	321	380
Chromium, dissolved	mg/l	0.05	--	<0.005	0.006	<0.005	<0.005	<0.005
Cobalt, dissolved	mg/l	--	--	0.0016	0.0013	<0.002	0.0014	<0.003 (33)
Copper, dissolved	mg/l	--	1	0.002	0.002	<0.01	0.001	0.002
Iron, dissolved	mg/l	--	0.3	55.4	77.7	58.4	37.7	44

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 29-May-2007	P1-91 28-Aug-2007	P1-91 01-May-2008	P1-91 07-Aug-2008	P1-91 15-Apr-2009
								P-1-91
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.01	<0.001	<0.0005
Magnesium, dissolved	mg/l	--	--	219	216	187	104	130
Manganese, dissolved	mg/l	--	0.05	3.56	4.64	3.7	2.1	3.0
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.05	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	0.025	0.033	<0.05	0.026	0.017 (33)
Potassium, dissolved	mg/l	--	--	10	8	8	8	8.5
Silicon, dissolved	mg/l	--	--	11.7	12.6	14	14	12
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	254	244	322	199	240
Strontium, dissolved	mg/l	--	--	3.02	3.23	2.14	1.63	1.9
Sulfur, dissolved	mg/l	--	--	1	0.3	1	2	2.1
Thallium, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.001	<0.0001	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.1	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	0.039	0.077	0.07	0.042	0.016
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.1	<0.01	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.373	0.527	0.453	0.013	0.004
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2600	2800	3100	2200	2800
Temperature (Field)	deg c	--	15	10.4	14.2	6	15	5
pH (Field)	-	--	--	7	7	6.6	7.1	6.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 14-Aug-2009 1-91	P1-91 31-May-2010 M-2	P1-91 11-Aug-2010 R-3	P1-91 29-Apr-2011 S-1	P1-91 25-Aug-2011 P1-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1270	1450	1370	1440	1260
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	<0.02
Ammonia Nitrogen	mg/l	--	--	1.2	1.2	1.0	1.1	0.93
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	8	10	9	14	10
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	170	210	200	210	180
Chloride	mg/l	--	250	140	340	320	310	240
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	51.9	73	68.9	66.3	59.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1200	1500	1300	1500	1200
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	4.7	5.8	5.7	5.6	5
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.12	0.11	0.10	0.5	0.17
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	2	<1	<1	<1	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1800	2100	2020	1940	1980
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.007	0.009	0.005	0.009	0.007
Barium, dissolved	mg/l	1	--	0.18	0.25	0.22	0.25	0.19
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Boron, dissolved	mg/l	5	--	1.5	1.4	1.8	1.4	1.7
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	290	390	330	390	300
Chromium, dissolved	mg/l	0.05	--	<0.005	0.007	<0.005	<0.005	<0.005
Cobalt, dissolved	mg/l	--	--	0.0008	0.0013	0.0012	0.0016	0.0013
Copper, dissolved	mg/l	--	1	0.001	0.002	<0.001	<0.001	0.001
Iron, dissolved	mg/l	--	0.3	31	28	22	23	17

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 14-Aug-2009 1-91	P1-91 31-May-2010 M-2	P1-91 11-Aug-2010 R-3	P1-91 29-Apr-2011 S-1	P1-91 25-Aug-2011 P1-91
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Magnesium, dissolved	mg/l	--	--	110	130	110	140	110
Manganese, dissolved	mg/l	--	0.05	2.2	2.0	1.8	3.4	3.1
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.0005
Nickel, dissolved	mg/l	--	--	0.012	0.018 (33)	0.014	0.016	0.012
Potassium, dissolved	mg/l	--	--	7.0	7.3	7.8	9.7	9.5
Silicon, dissolved	mg/l	--	--	12	12	11	12	12
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	240	250	250	230	220
Strontium, dissolved	mg/l	--	--	1.4	2.0	1.8	2.1	1.8
Sulfur, dissolved	mg/l	--	--	19.6	4.4	4.6	3.4	5.2
Thallium, dissolved	mg/l	--	--	0.00006	<0.00005	<0.00005	<0.00005	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Vanadium, dissolved	mg/l	--	--	0.009	0.013	0.010	0.016	0.0093
Zinc, dissolved	mg/l	--	5	<0.005	0.009	<0.005	<0.005	0.007
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.003	0.002	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2388	3297	2833	3009	2322
Temperature (Field)	deg c	--	15	14.7	9.4	15.3	8.4	14.1
pH (Field)	-	--	--	6.53	6.53	6.54	6.57	6.51

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 04-Jun-2012 (27) 1-91	P1-91 29-Aug-2012 (28) 1-91	P1-91 23-Apr-2013 SV-2	P1-91 06-Sep-2013 (29) P1-91	P1-91 12-May-2014 (30) P1-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	210	1600	1500	1400	1700
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.99	1.2	1.4	1.0	1.5
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	11	12	11	12	11
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	210	220	210	200	220
Chloride	mg/l	--	250	250	330	340	280	350
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	80	77	74	72	89
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1400	1500	1800	1300	1600
Nitrate as N	mg/l	10	--	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrite as N	mg/l	1	--	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen, Total Kjeldahl	mg/l	--	--	5.4	5.0	6.0	5.5	5.8
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	<0.010	<0.010
Phosphorus	mg/l	--	--	0.22	0.22	0.34	0.22	0.77
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	<0.010	<0.010	--	--
Sulphate	mg/l	--	500 (6)	<1	<1	<1	<1	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2070	2370	2190	2060	2120
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.0096	0.0054	0.0062	0.0067	0.008
Barium, dissolved	mg/l	1	--	0.25	0.28	0.31	0.26	0.33
Beryllium, dissolved	mg/l	--	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0005
Boron, dissolved	mg/l	5	--	1.7	3.3	1.8	1.6	1.8
Cadmium, dissolved	mg/l	0.005	--	<0.00010	<0.00010	<0.00010	<0.00010	<0.0001
Calcium, dissolved	mg/l	--	--	340	390	470	330	410
Chromium, dissolved	mg/l	0.05	--	<0.0050	0.0088	0.0090	<0.0050	<0.03
Cobalt, dissolved	mg/l	--	--	0.0023	0.0022 (34)	0.0021 (34)	0.0012	0.0024
Copper, dissolved	mg/l	--	1	0.0010	0.0012	<0.0010	<0.0010	<0.001
Iron, dissolved	mg/l	--	0.3	26	27	31	24	28

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 04-Jun-2012 (27)	P1-91 29-Aug-2012 (28)	P1-91 23-Apr-2013	P1-91 06-Sep-2013 (29)	P1-91 12-May-2014 (30)
				1-91	1-91	SV-2	P1-91	P1-91
Lead, dissolved	mg/l	0.01	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0005
Magnesium, dissolved	mg/l	--	--	120	130	150	110	140
Manganese, dissolved	mg/l	--	0.05	3.9	4.2	4.7	3.7	5.1
Mercury	mg/l	--	--	<0.0001	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0005
Nickel, dissolved	mg/l	--	--	0.012	0.015	0.012	0.012	0.016
Potassium, dissolved	mg/l	--	--	10	12	14	13	13
Silicon, dissolved	mg/l	--	--	12	12	14	12	13
Silver, dissolved	mg/l	--	--	<0.00010	<0.00010	<0.00010	<0.00010	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	250	260	280	230	250
Strontium, dissolved	mg/l	--	--	2	2.2	2.3	1.9	2.2
Sulfur, dissolved	mg/l	--	--	<5	5	2.8	5.5	2.7
Thallium, dissolved	mg/l	--	--	0.000050	<0.000050	<0.000050	<0.000050	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.005
Vanadium, dissolved	mg/l	--	--	0.013	0.012	0.017	0.011	0.016
Zinc, dissolved	mg/l	--	5	<0.0050	<0.0050	<0.0050	<0.0050	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.014	0.013	<0.0010	<0.0010	0.010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2918	3473	3030	2974	3324
Temperature (Field)	deg c	--	15	9.5	14.7	7.8	12.7	11.5
pH (Field)	-	--	--	6.66	6.75	7.15	6.85	6.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 27-Aug-2014 (31) P1-91	P1-91 20-May-2015 (32) P1	P1-91 18-Aug-2015 (31) P1-91	P1-91 17-June-2016 P1-91	P1-91 22-Aug-2016 P1-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1500	1600	1600	1760	1770
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	1.2	1.9	1.3	0.66	0.8
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	10	7.0	10	10	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	210	210	250	257	236
Chloride	mg/l	--	250	280	--	--	307	240
Chloride, dissolved	mg/l	--	250	--	320	300	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	73	80	82	80.8	64.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1300	1500	1600	1330	1350
Nitrate as N	mg/l	10	--	<0.10	<0.10	<0.10	0.5	< 0.1
Nitrite as N	mg/l	1	--	<0.010	<0.010	<0.010	< 0.5	< 0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	5.8	6.3	5.8	5.6	5.5
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	<0.10	<0.10	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.45	0.47	0.56	0.33	0.2
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	<1	--	-- (33)	7	4
Sulphate, dissolved	mg/l	--	500 (6)	--	<1	<20 (33)	--	--
Total Dissolved Solids	mg/l	--	500	2150	2440	2320	2321	2333
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.0097	0.009	0.0066	0.08	0.09
Barium, dissolved	mg/l	1	--	0.26	0.27	0.3	0.258	0.249
Beryllium, dissolved	mg/l	--	--	<0.00050	<0.0005	<0.00050	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	2.5	2.4	2	1.66	2.38
Cadmium, dissolved	mg/l	0.005	--	<0.00010	<0.0001	<0.00010	< 0.00002	< 0.00002
Calcium, dissolved	mg/l	--	--	350	380	410	349	352
Chromium, dissolved	mg/l	0.05	--	<0.0050	<0.005	<0.0050	0.005	0.004
Cobalt, dissolved	mg/l	--	--	0.0020	0.0024	0.0019	0.002	0.0022
Copper, dissolved	mg/l	--	1	0.0011	<0.001	<0.0010	< 0.002	< 0.002
Iron, dissolved	mg/l	--	0.3	23	16	24	21.1	21.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 27-Aug-2014 (31)	P1-91 20-May-2015 (32)	P1-91 18-Aug-2015 (31)	P1-91 17-June-2016	P1-91 22-Aug-2016
				P1-91	P1	P1-91	P1-91	P1-91
Lead, dissolved	mg/l	0.01	--	<0.00050	<0.0005	<0.00050	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	120	130	130	113	113
Manganese, dissolved	mg/l	--	0.05	4	4.6	4.8	4.98	4.9
Mercury	mg/l	--	--	--	--	<0.0001	< 0.00002	< 0.00002
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	--		
Molybdenum, dissolved	mg/l	--	--	<0.00050	<0.0005	<0.00050	0.0028	0.0006
Nickel, dissolved	mg/l	--	--	0.012	0.014	0.015	0.01	0.01
Potassium, dissolved	mg/l	--	--	13	15	15	14.9	15.6
Silicon, dissolved	mg/l	--	--	13	13	14	12.4	14.2
Silver, dissolved	mg/l	--	--	<0.00010	<0.0001	<0.00010	0.00002	0.00002
Sodium, dissolved	mg/l	--	200 (7)	260	270	280	266	271
Strontium, dissolved	mg/l	--	--	2	2.3	2.2	2.06	2.03
Sulfur, dissolved	mg/l	--	--	6.4	3.7	3.3	5.7	5.6
Thallium, dissolved	mg/l	--	--	<0.000050	<0.00005	<0.000050	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.0050	<0.005	<0.0050	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.011	0.01	0.015	0.0191	0.0161
Zinc, dissolved	mg/l	--	5	0.0067	<0.005	<0.0050	0.006	0.007
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.014	0.0020	<0.0020 (33)	< 0.001	0.004
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3141	3108	3991	2870	3320
Temperature (Field)	deg c	--	15	14.4	10.8	12.4	10.5	13.1
pH (Field)	-	--	--	6.94	6.66	6.79	6.8	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 02-May-2017 P1-91	P1-91 21-Sep-2017 P1-91	P1-91 01-May-2018 P1-91	P1-91 21-Aug-2018 P1-91	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1610	1140	1470	1290	
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	0.88	0.76	0.84	1.03	
Bicarbonate	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	5	7	6	
Bromide	mg/l	--	--	--	--	--	--	
Carbonate (CO3)	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	--	161	187	201	
Chloride	mg/l	--	250	282	174	255	219	
Chloride, dissolved	mg/l	--	250	--	--	--	--	
Conductivity	µmho/c	--	--	--	2450	2910	2540	
Dissolved Organic Carbon	mg/l	--	5	77.4	61.4	61.6	64.2	
Fluoride	mg/l	1.5	--	--		--	--	
Hardness, Calcium Carbonate	mg/l	--	80-100	1540	1190	1430	1120	
Nitrate as N	mg/l	10	--	--	< 0.05	< 0.5	< 0.05	
Nitrite as N	mg/l	1	--	--	< 0.05	< 0.5	< 0.05	
Nitrogen, Total Kjeldahl	mg/l	--	--	--	4.3	5.6	6.1	
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphate, Ortho	mg/l	--	--	< 0.01	0.01	< 0.01	< 0.01	
Phosphorus	mg/l	--	--	0.27	0.11	0.25	0.19	
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 (6)	--	3	< 10	6	
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	2080	1434	1924	1650	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	
Aluminum, dissolved	mg/l	0.1	--	--	0.16	0.14	0.12	
Barium, dissolved	mg/l	1	--	--	0.242	0.293	0.218	
Beryllium, dissolved	mg/l	--	--	--	< 0.0001	< 0.0001	< 0.0001	
Boron, dissolved	mg/l	5	--	1.97	1.46	1.74	1.44	
Cadmium, dissolved	mg/l	0.005	--	--	< 0.000014	< 0.000015	< 0.000015	
Calcium, dissolved	mg/l	--	--	--	308	368	278	
Chromium, dissolved	mg/l	0.05	--	--	0.003	0.003	0.004	
Cobalt, dissolved	mg/l	--	--	--	< 0.005	0.0013	0.0019	
Copper, dissolved	mg/l	--	1	--	< 0.002	< 0.0001	0.0001	
Iron, dissolved	mg/l	--	0.3	22.1	17.7	25.9	22.8	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-91 02-May-2017 P1-91	P1-91 21-Sep-2017 P1-91	P1-91 01-May-2018 P1-91	P1-91 21-Aug-2018 P1-91	
Lead, dissolved	mg/l	0.01	--	--	< 0.00002	< 0.00002	< 0.00002	
Magnesium, dissolved	mg/l	--	--	--	102	124	103	
Manganese, dissolved	mg/l	--	0.05	6.1	4.6	6.07	3.97	
Mercury	mg/l	--	--	--	--	--	--	
Mercury, dissolved	mg/l	0.001	--	--	< 0.00002	< 0.00002	< 0.00002	
Molybdenum, dissolved	mg/l	--	--	--	0.0001	< 0.0001	0.0001	
Nickel, dissolved	mg/l	--	--	--	< 0.01	< 0.01	0.01	
Potassium, dissolved	mg/l	--	--	--	17.8	17.1	14.5	
Silicon, dissolved	mg/l	--	--	--	12.8	11.3	10.8	
Silver, dissolved	mg/l	--	--	--	< 0.00002	< 0.0001	< 0.0001	
Sodium, dissolved	mg/l	--	200 (7)	254	223	244	229	
Strontium, dissolved	mg/l	--	--	--	1.85	2.13	1.45	
Sulfur, dissolved	mg/l	--	--	--	3	6.9	10.4	
Thallium, dissolved	mg/l	--	--	--	< 0.00005	< 0.00005	< 0.00005	
Tin, dissolved	mg/l	--	--	--	--	--		
Titanium, dissolved	mg/l	--	--	--	< 0.005	< 0.005	< 0.005	
Vanadium, dissolved	mg/l	--	--	--	0.0117	0.0064	0.0086	
Zinc, dissolved	mg/l	--	5	--	< 0.005	< 0.005	< 0.005	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	< 0.001	0.005	0.011	
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3140	2220	2150	1378	
Temperature (Field)	deg c	--	15	6.6	11.9	6.8	12.9	
pH (Field)	-	--	--	6.6	6.8	6.6	6.7	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 01-Nov-1990	P2-90 08-Aug-1991	P2-90 04-Dec-1991	P2-90 29-Apr-1992	P2-90 08-Sep-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	143	--	76	17	14
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	<0.1	<0.1
Bicarbonate	mg/l	--	--	169	--	92	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	<1	2
Bromide	mg/l	--	--	--	--	--	<0.5	0.7
Carbonate (CO3)	mg/l	--	--	2.4	--	<1	--	--
Chemical Oxygen Demand	mg/l	--	--	13	--	478	<3	<3
Chloride	mg/l	--	250	21	1.2	2	2	<1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.5	--	4.5	--	--
Fluoride	mg/l	1.5	--	--	--	--	0.06	0.07
Hardness, Calcium Carbonate	mg/l	--	80-100	151	--	130	26	23
Nitrate as N	mg/l	10	--	1.78	--	0.13	0.47	0.36
Nitrite as N	mg/l	1	--	--	--	--	0.27	0.14
Nitrogen, Total Kjeldahl	mg/l	--	--	0.65	--	3.02	<0.1	<0.1
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.65	--	--	<0.1	<0.1
Phosphate	mg/l	--	--	<0.1	<0.1	--	0.1	0.2
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	6.88	0.14	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	54	10	16	18	14
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	244	84	72	50	40
Total Organic Carbon	mg/l	--	--	--	--	--	0.7	0.2
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.25	0.25
Barium, dissolved	mg/l	1	--	--	--	--	<0.01	0.02
Beryllium, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	--	0.02	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	39	--	24	7	6
Chromium, dissolved	mg/l	0.05	--	--	--	--	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	--	<0.01	0.04
Copper, dissolved	mg/l	--	1	<0.05	--	<0.05	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.77	2.51	3.1	0.26	0.39

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 01-Nov-1990	P2-90 08-Aug-1991	P2-90 04-Dec-1991	P2-90 29-Apr-1992	P2-90 08-Sep-1992
Lead, dissolved	mg/l	0.01	--	<0.05	--	<0.05	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	13	--	17	2	2
Manganese, dissolved	mg/l	--	0.05	0.1	<0.05	<0.05	0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.1	--	<0.1	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.05	--	0.06	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	--	14	1	2
Silicon, dissolved	mg/l	--	--	--	--	--	10.7	11.2
Silver, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	23	4	7	6	4
Strontium, dissolved	mg/l	--	--	--	--	--	<0.01	0.04
Sulfur, dissolved	mg/l	--	--	--	--	--	9	4
Thallium, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	--	<0.01	0.01
Zinc, dissolved	mg/l	--	5	<0.05	--	0.12	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	580	106	100	104	75
pH (Field)	-	--	--	8.32	--	6.3	7.2	6.9
Temperature (Field)	deg c	--	15	--	--	--	5	8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-Nov-1992	P2-90 03-May-1993	P2-90 10-Nov-1993	P2-90 03-Jun-1994	P2-90 09-Sep-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	44	16	14	17	17
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	0.02	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	--	--	<1	<1
Bromide	mg/l	--	--	<0.5	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	<3	3	<3	<3
Chloride	mg/l	--	250	<1	2	2	2	1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	1.2	0.9	1.1	0.5
Fluoride	mg/l	1.5	--	0.06	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	39	19	31	22	18
Nitrate as N	mg/l	10	--	0.17	0.53	0.48	0.24	0.27
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.1	--	--	0.08	0.11
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	<0.1	--	--	0.06	0.08
Phosphate	mg/l	--	--	0.52	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	1.54	1.02
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	12	--	--	10	9
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	40	60	50	40	40
Total Organic Carbon	mg/l	--	--	0.5	1.4	1.3	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.71	0.18	<0.03	0.05	0.07
Barium, dissolved	mg/l	1	--	0.13	<0.01	<0.01	<0.01	<0.01
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.14	<0.01	0.04	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.00015	<0.00015
Calcium, dissolved	mg/l	--	--	14	6	6	4	4
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.0004	<0.0004
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.005	<0.005
Iron, dissolved	mg/l	--	0.3	1.35	0.3	0.13	0.09	0.21

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-Nov-1992	P2-90 03-May-1993	P2-90 10-Nov-1993	P2-90 03-Jun-1994	P2-90 09-Sep-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	<1	1	4	3	2
Manganese, dissolved	mg/l	--	0.05	0.45	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	9	3	2	<1	<1
Silicon, dissolved	mg/l	--	--	8	9.4	7.5	6.3	6.8
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	4	8	5	1	1
Strontium, dissolved	mg/l	--	--	0.26	<0.01	<0.01	0.04	0.034
Sulfur, dissolved	mg/l	--	--	10	6	4	4	4
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.005	<0.005
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.007	<0.007
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	80	80	80	70	625
pH (Field)	-	--	--	6.4	5.3	7.4	6.2	6.6
Temperature (Field)	deg c	--	15	9	6	6	7	9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 24-Nov-1994	P2-90 04-Jun-1995	P2-90 11-Sep-1995	P2-90 07-Nov-1995	P2-90 17-Jul-1996
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	21	18	8	15	31
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.02	0.03	--	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	<1	2	--	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	<3	5	<3	<3
Chloride	mg/l	--	250	2	3	4	5	11
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	0.8	2.4	1.5	1.4	2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	17	21	21	21	36
Nitrate as N	mg/l	10	--	--	0.26	0.29	--	0.24
Nitrite as N	mg/l	1	--	--	<0.1	<0.1	--	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	0.29	0.08	--	0.11
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	0.27	0.05	--	0.07
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.77	0.76	--	3.59
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	8	8	--	5
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	48	56	44	44	52
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	<0.03	0.17	--	0.1
Barium, dissolved	mg/l	1	--	--	0.01	0.01	--	0.01
Beryllium, dissolved	mg/l	--	--	--	<0.01	<0.01	--	<0.01
Boron, dissolved	mg/l	5	--	--	0.02	<0.01	--	0.01
Cadmium, dissolved	mg/l	0.005	--	--	<0.00015	<0.00015	--	<0.005
Calcium, dissolved	mg/l	--	--	--	5	5	--	6
Chromium, dissolved	mg/l	0.05	--	--	<0.01	**0.29**	--	0.05
Cobalt, dissolved	mg/l	--	--	--	0.0028	<0.0004	--	<0.01
Copper, dissolved	mg/l	--	1	--	<0.005	<0.005	--	<0.005
Iron, dissolved	mg/l	--	0.3	0.21	0.14	0.43	0.44	0.24

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 24-Nov-1994	P2-90 04-Jun-1995	P2-90 11-Sep-1995	P2-90 07-Nov-1995	P2-90 17-Jul-1996
Lead, dissolved	mg/l	0.01	--	--	<0.002	<0.002	--	<0.002
Magnesium, dissolved	mg/l	--	--	--	2	2	--	5
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	0.0005
Molybdenum, dissolved	mg/l	--	--	--	<0.01	<0.01	--	<0.01
Nickel, dissolved	mg/l	--	--	--	<0.01	<0.01	--	<0.01
Potassium, dissolved	mg/l	--	--	--	6	1	--	<1
Silicon, dissolved	mg/l	--	--	--	8	11.2	--	9
Silver, dissolved	mg/l	--	--	--	<0.0001	<0.0001	--	<0.01
Sodium, dissolved	mg/l	--	200 (7)	2	8	5	5	8
Strontium, dissolved	mg/l	--	--	0.05	0.044	0.05	0.055	0.701
Sulfur, dissolved	mg/l	--	--	--	3	3	--	2
Thallium, dissolved	mg/l	--	--	--	<0.005	<0.005	--	1.2
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.01	<0.01	--	<0.01
Vanadium, dissolved	mg/l	--	--	--	<0.007	<0.007	--	<0.01
Zinc, dissolved	mg/l	--	5	--	0.01	<0.01	--	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	0.006	<0.001	--	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	650	55	75	80	100
pH (Field)	-	--	--	7	5.9	7.2	7.8	8.1
Temperature (Field)	deg c	--	15	10	8	10	12	6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 21-Nov-1996	P2-90 10-Jun-1997	P2-90 12-Sep-1997	P2-90 06-Apr-1998	P2-90 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	22	26	21	23	25
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	0.03	0.04	0.05	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	<1	2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	8	6	5	5	<3
Chloride	mg/l	--	250	8	8	5	30	20
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.8	2.1	2.1	2.7	0.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	30	32	30	70	51
Nitrate as N	mg/l	10	--	0.18	0.55	0.48	0.63	0.69
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.1	0.18	0.1	0.13	<0.05
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.07	0.15	0.06	0.08	<0.01
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.37	2.33	1.08	1.85	0.53
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	5	7	7	18	10
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	52	60	60	136	96
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.13	0.16	0.13	0.03	<0.03
Barium, dissolved	mg/l	1	--	0.01	0.01	0.01	0.02	0.01
Beryllium, dissolved	mg/l	--	--	<0.01	0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	<0.01	<0.01	<0.01	0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	<0.005	**0.006**	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	7	8	7	18	14
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	**0.15**	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.005	<0.005	0.014	<0.005	<0.005
Iron, dissolved	mg/l	--	0.3	0.29	0.48	0.15	0.01	0.28

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 21-Nov-1996	P2-90 10-Jun-1997	P2-90 12-Sep-1997	P2-90 06-Apr-1998	P2-90 11-Jun-1998
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	3	3	3	6	4
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.03	<0.03	<0.03	<0.03	<0.03
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	<1	1	2	1	1
Silicon, dissolved	mg/l	--	--	9	9.9	9.3	6.6	7.4
Silver, dissolved	mg/l	--	--	<0.001	<0.004	<0.001	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	5	4	4	6	7
Strontium, dissolved	mg/l	--	--	0.066	0.079	0.067	0.166	0.123
Sulfur, dissolved	mg/l	--	--	<3	<3	<3	6	4
Thallium, dissolved	mg/l	--	--	<0.2	<0.2	<0.2	<0.2	<0.2
Tin, dissolved	mg/l	--	--	<0.05	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	0.003	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	55	100	70	180	180
pH (Field)	-	--	--	7.2	6.8	-- (11)	5.88	5.8
Temperature (Field)	deg c	--	15	7.5	2	11	3	11.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 19-Aug-1998	P2-90 25-May-1999	P2-90 30-Aug-1999	P2-90 02-Jun-2000	P2-90 17-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	25	147	32	48	68
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	39	<3	8	<4
Chloride	mg/l	--	250	15	11	18	5	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	0.9	14.4	1.1	2.1	0.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	44	135	58	44	32
Nitrate as N	mg/l	10	--	<0.1	--	--	--	--
Nitrite as N	mg/l	1	--	0.76	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.05	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	<0.05	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.49	--	--	3.63	2.98
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	9	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	84	216	96	104	92
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.15	--	--	1.03	0.13
Barium, dissolved	mg/l	1	--	<0.01	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	--	--	--
Calcium, dissolved	mg/l	--	--	11	--	--	11	8
Chromium, dissolved	mg/l	0.05	--	<0.01	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	--	--	--	--
Copper, dissolved	mg/l	--	1	<0.005	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.21	<0.01	<0.01	2.4	0.24

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 19-Aug-1998	P2-90 25-May-1999	P2-90 30-Aug-1999	P2-90 02-Jun-2000	P2-90 17-Aug-2000
Lead, dissolved	mg/l	0.01	--	<0.002	--	--	--	--
Magnesium, dissolved	mg/l	--	--	4	--	--	4	3
Manganese, dissolved	mg/l	--	0.05	<0.01	0.5	<0.01	0.02	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.03	--	--	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	--	--	--
Potassium, dissolved	mg/l	--	--	1	--	--	--	--
Silicon, dissolved	mg/l	--	--	8.7	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7	23	7	6	4
Strontium, dissolved	mg/l	--	--	0.094	0.271	0.102	0.102	0.063
Sulfur, dissolved	mg/l	--	--	3	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.2	--	--	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	160	160	65	200	90
pH (Field)	-	--	--	6.5	6.14	-- (11)	6.31	6.25
Temperature (Field)	deg c	--	15	10	6	7	7	11.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-May-2001	P2-90 08-Aug-2001	P2-90 04-Apr-2002	P2-90 07-Aug-2002	P2-90 14-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	17	15	31	27	28
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.03	0.03	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	30	1	3	3	2
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	0.6	1.1	1.1	0.8	1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	23	8	35	14	35
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.85	2.38	0.61	0.88	1.54
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	<0.01	0.04	0.28
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	72	40	73	60	67
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.01	<0.05	<0.02	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	6	3	9	4	9
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.02	0.06	0.68	0.02	0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-May-2001	P2-90 08-Aug-2001	P2-90 04-Apr-2002	P2-90 07-Aug-2002	P2-90 14-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	2	<1	3	1	3
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.005	<0.005
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	3	3	4	<2	5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	400	600	620	590	60
pH (Field)	-	--	--	7	6.9	6.2	6.4	7
Temperature (Field)	deg c	--	15	9.5	9	5	16	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-Aug-2003	P2-90 30-May-2004	P2-90 27-May-2005	P2-90 25-Aug-2005	P2-90 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	31	15	24	10	23
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.08	0.04	0.04	0.04	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2	1.2	16	91	275
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.1	2.5	0.6	1.6	4.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	21	28.1	35	124	357
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.52	<0.1	2.11	1.67	2.7
Phosphorus (dissolved reactive)	mg/l	--	--	0.06	0.017	0.12	0.1	0.06
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	56	72	72	225	683
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	0.02	<0.01	0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	5	7.37	9	33	95
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.01	0.02	0.01	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 27-Aug-2003	P2-90 30-May-2004	P2-90 27-May-2005	P2-90 25-Aug-2005	P2-90 01-Jun-2006
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	2	2.35	3	10	29
Manganese, dissolved	mg/l	--	0.05	<0.005	<0.005	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	13	4.5	5	10	32
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	100	210	111	220	800
pH (Field)	-	--	--	7.2	7.2	7.4	6.1	6.2
Temperature (Field)	deg c	--	15	14	8	5	15.9	10

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 07-Sep-2006	P2-90 07-Jun-2007	P2-90 28-Aug-2007	P2-90 02-May-2008	P2-90 07-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	14	16	31	29	30
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.04	0.05	<0.02	0.03	0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	358	536	663	53	192
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.4	0.9	3.1	2.5	2.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	381	493	503	183	123
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.62	2.51	5.16	0.86	0.93
Phosphorus (dissolved reactive)	mg/l	--	--	0.06	0.1	0.09	0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	871	1200	1480	689	540
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	100	130	132	47	31
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.03	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 07-Sep-2006	P2-90 07-Jun-2007	P2-90 28-Aug-2007	P2-90 02-May-2008	P2-90 07-Aug-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	32	41	42	16	11
Manganese, dissolved	mg/l	--	0.05	0.01	0.06	0.09	0.07	0.03
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	67	130	211	121	87
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	410	695	1700	650	650
pH (Field)	-	--	--	6.8	7.1	7	6.4	6
Temperature (Field)	deg c	--	15	14	11	12.9	8.5	11

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 14-Apr-2009 P-2-90	P2-90 14-Aug-2009 2-90	P2-90 01-Jun-2010 C-1	P2-90 11-Aug-2010 C-3	P2-90 28-Apr-2011 R-6
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	42	47	43	44	39
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.08	0.08	0.10	0.13	0.08
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	110	74	120	120	180
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	1.7	1.7	1.4	1.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	63	29	51	46	110
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	5.0	4.2 (14)	5.5 (14)	2.8 (14)	6.9
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.02	0.01	<0.01	0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	335	240	330	330	532
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	<0.02	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 14-Apr-2009 P-2-90	P2-90 14-Aug-2009 2-90	P2-90 01-Jun-2010 C-1	P2-90 11-Aug-2010 C-3	P2-90 28-Apr-2011 R-6
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	0.01	0.02	0.02	0.02
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	74.8	62.0	84.2	85.9	107
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	500	328	565	490	796
pH (Field)	-	--	--	7	6.04	6.34	6.47	7.04
Temperature (Field)	deg c	--	15	5	11.9	9.5	12.9	7.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 23-Aug-2011 P2-90	P2-90 04-Jun-2012 2-90	P2-90 29-Aug-2012 (12) P2-90	P2-90 23-Apr-2013 R-6	P2-90 06-Sep-2013 2-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	44	55	--	100	84
Ammonia, unionized (Field)	mg/l	--	--	<0.02	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.050	--	0.15	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	99	42	--	79	21
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	2.0	--	2.7	3.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	36	18	--	46	11
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	0.045
Phosphorus	mg/l	--	--	2.9	3.7	--	5.7	9.7
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	0.022	--	0.011	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	306	186	--	274	260
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	--	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.02	0.29	--	0.02	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 23-Aug-2011 P2-90	P2-90 04-Jun-2012 2-90	P2-90 29-Aug-2012 (12) P2-90	P2-90 23-Apr-2013 R-6	P2-90 06-Sep-2013 2-90
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.01	<0.01	--	0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	65.8	50.3	--	92.4	46.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	383	260	--	463	226
pH (Field)	-	--	--	6.23	6.51	--	7.50	6.26
Temperature (Field)	deg c	--	15	11.1	8.5	--	7.1	11.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 12-May-2014 P2-90	P2-90 26-Aug-2014 P2-90	P2-90 20-May-2015 P2-90	P2-90 18-Aug-2015 P2-90	P2-90 16-June-2016 P2-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	97	78	98	99	84
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.068	0.075	<0.050	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	12	9	--	--	2.2
Chloride, dissolved	mg/l	--	250	--	--	8	6.2	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.1	4.9	3.1	2.5	2.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	14	8.1	11	8.5	10
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.028	0.063	0.064	0.023	0.06
Phosphorus	mg/l	--	--	3.9	11	2.3	5.9	7.77
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	242	204	272	214	109
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	<0.02	<0.02	< 0.005
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.00050	<0.02	<0.00050	<0.00050	< 0.0001
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.04	0.09	0.03	0.03	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 12-May-2014 P2-90	P2-90 26-Aug-2014 P2-90	P2-90 20-May-2015 P2-90	P2-90 18-Aug-2015 P2-90	P2-90 16-June-2016 P2-90
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	< 0.001
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	46	38	45	46	40.4
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	220	187	306	409	175
pH (Field)	-	--	--	7.32	7.29	7.28	7.31	8.9
Temperature (Field)	deg c	--	15	12.4	12.2	11.9	13.1	6.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 22-Aug-2016 P2-90	P2-90 02-May-2017 P2-90	P2-90 21-Sep-2017 P2-90	P2-90 01-May-2018 P2-90	P2-90 21-Aug-2018 P2-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	101	104	83	101	93
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	0.09	--	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2.8	3.7	2.6	2.6	1.5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.9	3.5	4.7	3.5	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	9	15	17	17	10
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.06	0.31	0.06	0.04	0.04
Phosphorus	mg/l	--	--	1.34	2.52	2.12	3.98	2.6
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	119	120	118	124	106
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	< 0.0001	< 0.005	< 0.005	< 0.0001	< 0.0001
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.015	0.026	0.02	0.028	0.022

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P2-90 22-Aug-2016 P2-90	P2-90 02-May-2017 P2-90	P2-90 21-Sep-2017 P2-90	P2-90 01-May-2018 P2-90	P2-90 21-Aug-2018 P2-90
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	< 0.001	< 0.001	0.001	0.001	0.001
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	46.3	46.2	52.7	51.8	43.1
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols					--			
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	< 0.001	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	211	227	198	182	153
pH (Field)	-	--	--	9.7	6.7	6.8	6.5	7.1
Temperature (Field)	deg c	--	15	6.7	7.2	10.5	7.7	10.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 01-Nov-1990	P4-90 08-Aug-1991	P4-90 04-Dec-1991	P4-90 01-May-1992	P4-90 08-Sep-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	44	--	74	14	28
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	<0.1	<0.1
Bicarbonate	mg/l	--	--	54	--	90	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	1	<1
Bromide	mg/l	--	--	--	--	--	<0.5	<0.5
Carbonate (CO3)	mg/l	--	--	<1	--	<1	--	--
Chemical Oxygen Demand	mg/l	--	--	1	--	1111	8	<3
Chloride	mg/l	--	250	<1	0.3	3	8	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.4	--	2.8	--	--
Fluoride	mg/l	1.5	--	--	--	--	0.04	0.04
Hardness, Calcium Carbonate	mg/l	--	80-100	26	--	70	51	46
Nitrate as N	mg/l	10	--	0.28	--	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	--	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.1	--	0.84	<0.1	<0.1
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	<0.1	--	--	<0.1	<0.1
Phosphate	mg/l	--	--	0.92	<0.1	--	0.18	0.17
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	9.6	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	5	5.3	6	24	11
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	65	88	44	80	60
Total Organic Carbon	mg/l	--	--	--	--	--	2.3	1.4
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.07	0.08
Barium, dissolved	mg/l	1	--	--	--	--	0.01	<0.01
Beryllium, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	--	0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	7	--	18	12	12
Chromium, dissolved	mg/l	0.05	--	--	--	--	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.05	--	0.06	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	2.67	1.98	49.38	0.1	<0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 01-Nov-1990	P4-90 08-Aug-1991	P4-90 04-Dec-1991	P4-90 01-May-1992	P4-90 08-Sep-1992
Lead, dissolved	mg/l	0.01	--	<0.05	--	<0.05	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	2	--	6	5	4
Manganese, dissolved	mg/l	--	0.05	<0.05	<0.05	0.39	0.04	0.06
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.1	--	<0.1	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.05	--	0.13	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	1	--	22	1	1
Silicon, dissolved	mg/l	--	--	--	--	--	3.6	8.2
Silver, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	4	5	5	2	3
Strontium, dissolved	mg/l	--	--	--	--	--	0.07	0.13
Sulfur, dissolved	mg/l	--	--	--	--	--	6	6
Thallium, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	--	0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.05	--	0.21	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	196	52	58	148	95
pH (Field)	-	--	--	7	--	6.05	6.4	6.5
Temperature (Field)	deg c	--	15	--	--	--	7	8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 27-Nov-1992	P4-90 05-May-1993	P4-90 10-Nov-1993	P4-90 03-Jun-1994	P4-90 08-Sep-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	38	18	57	35	42
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	--	--	--	--
Bromide	mg/l	--	--	1.2	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	8	10	10	<3	<3
Chloride	mg/l	--	250	8	2	7	5	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	1.4	2.2	0.8	0.9
Fluoride	mg/l	1.5	--	0.04	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	54	23	70	46	31
Nitrate as N	mg/l	10	--	<0.1	0.24	<0.1	--	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.1	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	<0.1	--	--	--	--
Phosphate	mg/l	--	--	0.21	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	12	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	60	40	110	60	70
Total Organic Carbon	mg/l	--	--	1.2	2.3	3	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.36	<0.03	<0.03	--	--
Barium, dissolved	mg/l	1	--	0.02	<0.01	0.02	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.01	0.05	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	15	6	18	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	0.3	0.06	0.04	0.01	0.04

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 27-Nov-1992	P4-90 05-May-1993	P4-90 10-Nov-1993	P4-90 03-Jun-1994	P4-90 08-Sep-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	4	2	6	--	--
Manganese, dissolved	mg/l	--	0.05	0.05	0.01	0.05	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	0.07	--	--
Potassium, dissolved	mg/l	--	--	1	1	1	--	--
Silicon, dissolved	mg/l	--	--	7.6	0.8	4.1	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	3	3	5	4	1
Strontium, dissolved	mg/l	--	--	0.14	<0.01	<0.01	<0.01	0.125
Sulfur, dissolved	mg/l	--	--	10	3	6	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	120	70	170	100	115
pH (Field)	-	--	--	6	6	6.9	6.3	6.4
Temperature (Field)	deg c	--	15	7	6	7.5	8.5	14

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 24-Nov-1994 (5)	P4-90 04-Jun-1995	P4-90 11-Sep-1995	P4-90 07-Nov-1995 (5)	P4-90 16-Jul-1996
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	59	45	--	48
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	<3	8	--	5
Chloride	mg/l	--	250	--	7	3	--	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	2.1	1.4	--	0.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	79	56	--	55
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	104	80	--	84
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	0.19	0.48	--	0.07

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 24-Nov-1994 (5)	P4-90 04-Jun-1995	P4-90 11-Sep-1995	P4-90 07-Nov-1995 (5)	P4-90 16-Jul-1996
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	<0.01	0.01	--	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	4	4	--	5
Strontium, dissolved	mg/l	--	--	--	0.179	0.122	--	0.123
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	150	130	--	100
pH (Field)	-	--	--	--	6	7	--	7.2
Temperature (Field)	deg c	--	15	--	8	13	--	8.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 21-Nov-1996	P4-90 10-Jun-1997	P4-90 10-Sep-1997	P4-90 06-Apr-1998	P4-90 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	63	64	62	38	66
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	11	10	<3	5	<3
Chloride	mg/l	--	250	4	2	4	3	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	3.1	1.9	3.2	2.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	83	62	70	53	79
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	104	100	108	72	112
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	15	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.16	0.4	0.42	0.17	0.11

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 21-Nov-1996	P4-90 10-Jun-1997	P4-90 10-Sep-1997	P4-90 06-Apr-1998	P4-90 11-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	6	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.04	0.02	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	5	3	4	1	4
Strontium, dissolved	mg/l	--	--	0.16	0.143	0.141	0.106	0.161
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	110	110	150	100	160
pH (Field)	-	--	--	7.2	6.6	7.2	6.71	6.6
Temperature (Field)	deg c	--	15	7.5	6.5	15	3.5	13

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P4-90 20-Aug-1998	P4-90 23-Apr-1999	P4-90 25-May-1999	P4-90 25-Jun-1999	P4-90 29-Jul-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	73	56	80	132	126
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	<0.02	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	>1	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	13	10	15	<3
Chloride	mg/l	--	250	4	4	3	3	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.4	3.7	3.5	2.6	2.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	86	58	75	142	85
Nitrate as N	mg/l	10	--	--	--	0.18	--	--
Nitrite as N	mg/l	1	--	--	--	0.11	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	0.27	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	0.27	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	0.99	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	--	9	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	116	88	88	160	160
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	<0.03	--	--
Barium, dissolved	mg/l	1	--	--	--	0.01	--	--
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	--	--
Boron, dissolved	mg/l	5	--	--	--	0.01	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.005	--	--
Calcium, dissolved	mg/l	--	--	--	--	20	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	--	--
Copper, dissolved	mg/l	--	1	--	--	<0.005	--	--
Iron, dissolved	mg/l	--	0.3	0.18	0.01	0.02	0.12	0.32

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 20-Aug-1998	P4-90 23-Apr-1999	P4-90 25-May-1999	P4-90 25-Jun-1999	P4-90 29-Jul-1999
Lead, dissolved	mg/l	0.01	--	--	--	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	--	--	6	--	--
Manganese, dissolved	mg/l	--	0.05	0.04	<0.01	<0.01	0.04	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	<0.0002	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	--	--
Nickel, dissolved	mg/l	--	--	--	--	<0.01	--	--
Potassium, dissolved	mg/l	--	--	--	--	1	--	--
Silicon, dissolved	mg/l	--	--	--	--	2	--	--
Silver, dissolved	mg/l	--	--	--	--	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	6	3	4	4	14
Strontium, dissolved	mg/l	--	--	0.168	0.114	0.132	0.289	0.264
Sulfur, dissolved	mg/l	--	--	--	--	3	--	--
Thallium, dissolved	mg/l	--	--	--	--	<0.2	--	--
Tin, dissolved	mg/l	--	--	--	--	<0.05	--	--
Titanium, dissolved	mg/l	--	--	--	--	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	--	--	<0.01	--	--
Zinc, dissolved	mg/l	--	5	--	--	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.001	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	190	97	150	310	280
pH (Field)	-	--	--	7.2	7	7.04	6.7	6.84
Temperature (Field)	deg c	--	15	12	7	5	10	12.5

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	P4-90 30-Aug-1999	P4-90 30-Sep-1999	P4-90 27-Oct-1999	P4-90 29-Nov-1999	P4-90 21-Dec-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	79	81	70	72	70
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.02	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	7	3	3	8	<4
Chloride	mg/l	--	250	3	4	5	5	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.5	1.5	1.3	1.3	1.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	93	70	71	76	74
Nitrate as N	mg/l	10	--	0.15	--	--	--	--
Nitrite as N	mg/l	1	--	<0.1	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.05	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.03	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.44	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	13	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	120	120	108	104	84
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	--	--	--	--
Barium, dissolved	mg/l	1	--	0.02	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	--	--	--
Calcium, dissolved	mg/l	--	--	24	--	17	19	18
Chromium, dissolved	mg/l	0.05	--	<0.01	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	--	--	--	--
Copper, dissolved	mg/l	--	1	<0.005	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.01	0.08	0.17	0.15	0.09

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 30-Aug-1999	P4-90 30-Sep-1999	P4-90 27-Oct-1999	P4-90 29-Nov-1999	P4-90 21-Dec-1999
Lead, dissolved	mg/l	0.01	--	<0.05	--	--	--	--
Magnesium, dissolved	mg/l	--	--	8	--	7	7	7
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	--	--	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	--	--	--
Potassium, dissolved	mg/l	--	--	1	--	--	--	--
Silicon, dissolved	mg/l	--	--	6	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	6	6	7	7	6
Strontium, dissolved	mg/l	--	--	0.181	0.16	0.153	0.157	0.161
Sulfur, dissolved	mg/l	--	--	5	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.5	--	--	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	120	190	166	175	120
pH (Field)	-	--	--	6.81	6.47	6.42	6.5	6.62
Temperature (Field)	deg c	--	15	9	12	14	10	8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 28-Apr-2000	P4-90 30-May-2000	P4-90 29-Jun-2000	P4-90 27-Jul-2000	P4-90 17-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	89	130	171	159	188
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.11	--	--	0.09
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	2	--	--	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	38	29	35	15	10
Chloride	mg/l	--	250	8	21	11	11	11
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	8.9	11.6	6.4	4.7	3.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	95	194	194	158	188
Nitrate as N	mg/l	10	--	--	0.15	--	--	0.11
Nitrite as N	mg/l	1	--	--	<0.1	--	--	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	1.04	--	--	0.38
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.83	19.9	1.49	1.91	0.03
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	50	--	--	13
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	88	228	264	276	220
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.05	0.2	0.08	<0.05	0.08
Barium, dissolved	mg/l	1	--	--	0.04	--	--	0.04
Beryllium, dissolved	mg/l	--	--	--	<0.002	--	--	<0.002
Boron, dissolved	mg/l	5	--	--	0.04	--	--	0.04
Cadmium, dissolved	mg/l	0.005	--	--	<0.005	--	--	<0.0001
Calcium, dissolved	mg/l	--	--	25	53	53	45	52
Chromium, dissolved	mg/l	0.05	--	--	<0.01	--	--	<0.01
Cobalt, dissolved	mg/l	--	--	--	<0.01	--	--	0.0008
Copper, dissolved	mg/l	--	1	--	<0.01	--	--	<0.001
Iron, dissolved	mg/l	--	0.3	0.17	0.14	0.53	0.04	0.15

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 28-Apr-2000	P4-90 30-May-2000	P4-90 29-Jun-2000	P4-90 27-Jul-2000	P4-90 17-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	<0.001	--	--	<0.001
Magnesium, dissolved	mg/l	--	--	8	15	15	11	14
Manganese, dissolved	mg/l	--	0.05	0.02	0.1	0.11	0.11	0.07
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	--	--	<0.0001
Molybdenum, dissolved	mg/l	--	--	--	<0.01	--	--	<0.01
Nickel, dissolved	mg/l	--	--	--	<0.01	--	--	<0.01
Potassium, dissolved	mg/l	--	--	--	2	--	--	2
Silicon, dissolved	mg/l	--	--	--	2.62	--	--	3.59
Silver, dissolved	mg/l	--	--	--	<0.01	--	--	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	7	11	9	10	10
Strontium, dissolved	mg/l	--	--	0.19	0.375	0.43	0.33	0.388
Sulfur, dissolved	mg/l	--	--	--	17	--	--	5
Thallium, dissolved	mg/l	--	--	--	<0.2	--	--	<0.001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.01	--	--	<0.01
Vanadium, dissolved	mg/l	--	--	--	<0.01	--	--	0.001
Zinc, dissolved	mg/l	--	5	--	<0.01	--	--	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.001	--	--	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	263	340	480	344	387
pH (Field)	-	--	--	6.42	8.4	6.2	6.45	6.62
Temperature (Field)	deg c	--	15	5	8	13	14.3	13.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 27-Sep-2000	P4-90 30-Oct-2000	P4-90 01-Dec-2000	P4-90 21-Dec-2000	P4-90 26-May-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	121	80	102	127	93
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	11	5	10	11	10
Chloride	mg/l	--	250	12	8	8	9	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.2	9.5	2.1	2.8	1.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	120	86	107	126	91
Nitrate as N	mg/l	10	--	--	--	--	--	<0.1
Nitrite as N	mg/l	1	--	--	--	--	--	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	0.15
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.93	0.12	2.56	1.77	3.58
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	13
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	132	148	96	172	120
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.12	0.12	<0.05	<0.05	<0.05
Barium, dissolved	mg/l	1	--	--	--	--	--	0.02
Beryllium, dissolved	mg/l	--	--	--	--	--	--	<0.002
Boron, dissolved	mg/l	5	--	--	--	--	--	0.03
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	0.0002
Calcium, dissolved	mg/l	--	--	33	23	28	34	25
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	0.001
Cobalt, dissolved	mg/l	--	--	--	--	--	--	0.0003
Copper, dissolved	mg/l	--	1	--	--	--	--	0.001
Iron, dissolved	mg/l	--	0.3	0.17	0.12	0.05	0.01	<0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 27-Sep-2000	P4-90 30-Oct-2000	P4-90 01-Dec-2000	P4-90 21-Dec-2000	P4-90 26-May-2001
Lead, dissolved	mg/l	0.01	--	--	--	--	--	<0.001
Magnesium, dissolved	mg/l	--	--	9	7	9	10	7
Manganese, dissolved	mg/l	--	0.05	0.03	<0.01	0.01	0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	<0.0001
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	<0.01
Nickel, dissolved	mg/l	--	--	--	--	--	--	<0.01
Potassium, dissolved	mg/l	--	--	--	--	--	--	<1
Silicon, dissolved	mg/l	--	--	--	--	--	--	2.97
Silver, dissolved	mg/l	--	--	--	--	--	--	0.0006
Sodium, dissolved	mg/l	--	200 (7)	6	7	9	10	8
Strontium, dissolved	mg/l	--	--	0.28	0.201	0.231	0.261	0.197
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	<0.001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	--	--	<0.001
Zinc, dissolved	mg/l	--	5	--	--	--	--	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	267	175	300	180	200
pH (Field)	-	--	--	5.6	6.06	6.4	7.2	6.9
Temperature (Field)	deg c	--	15	11.9	11.7	9	7	10

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 08-Aug-2001	P4-90 04-Apr-2002	P4-90 07-Aug-2002	P4-90 14-May-2003	P4-90 27-Aug-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	103	78	171	67	147
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.02	<0.02	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	1	<1	<1	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<5	<5	<5	<5	<5
Chloride	mg/l	--	250	5	3	3	2	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2	2.2	2.9	2.4	1.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	102	76	163	71	156
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	0.89	0.22
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.38	0.15	0.27	0.28	0.09
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.16	0.72	0.93	0.48	0.9
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	0.01	0.03	0.06
Sulphate	mg/l	--	500 (6)	16	17	17	9	26
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	156	120	226	100	215
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.05	<0.05	<0.01	<0.01	<0.01
Barium, dissolved	mg/l	1	--	0.03	0.02	0.04	0.01	0.04
Beryllium, dissolved	mg/l	--	--	<0.002	<0.002	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.03	<0.05	<0.02	<0.05	<0.05
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	26	19	47	20	36
Chromium, dissolved	mg/l	0.05	--	<0.001	0.002	0.008	<0.001	0.002
Cobalt, dissolved	mg/l	--	--	0.0002	<0.0002	0.0008	<0.0002	0.0002
Copper, dissolved	mg/l	--	1	0.011	<0.001	0.007	0.001	0.004
Iron, dissolved	mg/l	--	0.3	0.04	<0.01	<0.01	0.01	0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 08-Aug-2001	P4-90 04-Apr-2002	P4-90 07-Aug-2002	P4-90 14-May-2003	P4-90 27-Aug-2003
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	9	7	11	5	16
Manganese, dissolved	mg/l	--	0.05	0.02	<0.01	0.043	<0.005	0.008
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.005	<0.005	<0.005
Potassium, dissolved	mg/l	--	--	1	1	1	1	1
Silicon, dissolved	mg/l	--	--	5.37	2.99	4.1	1.8	4.1
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	7	5	7	4	14
Strontium, dissolved	mg/l	--	--	0.226	0.119	0.381	0.135	0.282
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.001	<0.001	0.003	<0.001	<0.001
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.005	<0.005	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	390	510	590	80	140
pH (Field)	-	--	--	6.2	6.7	6.9	7.2	7
Temperature (Field)	deg c	--	15	15	5	17	6	14

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 26-May-2004	P4-90 29-Aug-2004	P4-90 27-May-2005	P4-90 25-Aug-2005	P4-90 31-May-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	75	67	76	116	153
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.03	0.03	<0.02	0.04	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<0.5	<0.5	<1	3	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	6	8	<5	5	<5
Chloride	mg/l	--	250	9.8	11.1	49	9	14
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.8	2.2	2.4	2.7	5.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	68.3	90	106	139	97
Nitrate as N	mg/l	10	--	<0.2	0.4	<0.1	0.15	<0.1
Nitrite as N	mg/l	1	--	<0.2	<0.2	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.22	0.26	0.27	0.18	0.38
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.05	<0.05	0.71	1.7	1.11
Phosphorus (dissolved reactive)	mg/l	--	--	0.006	<0.003	0.04	0.07	0.03
Sulphate	mg/l	--	500 (6)	3.4	9.6	7	18	12
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	112	86	208	194	231
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.009	<0.005	<0.01	<0.01	<0.01
Barium, dissolved	mg/l	1	--	0.015	0.018	0.03	0.03	0.03
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.013	0.032	0.01	0.06	0.01
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	20.6	22.8	31	41	29
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.005	<0.001	0.001	<0.001
Cobalt, dissolved	mg/l	--	--	0.0001	<0.0001	<0.0002	0.0003	0.0009
Copper, dissolved	mg/l	--	1	0.0008	0.0007	0.002	0.001	0.001
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.01	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 26-May-2004	P4-90 29-Aug-2004	P4-90 27-May-2005	P4-90 25-Aug-2005	P4-90 31-May-2006
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.0005	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	4.11	8.02	7	9	6
Manganese, dissolved	mg/l	--	0.05	0.008	<0.005	<0.01	0.03	0.07
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.001	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	<0.001	<0.001	<0.005	<0.005	<0.005
Potassium, dissolved	mg/l	--	--	1	1.1	1	1	2
Silicon, dissolved	mg/l	--	--	2.32	3.7	3.1	4.4	3.3
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	8	5.6	24	9	34
Strontium, dissolved	mg/l	--	--	0.148	0.156	0.208	0.261	0.181
Sulfur, dissolved	mg/l	--	--	1.8	3.9	2.3	6	4
Thallium, dissolved	mg/l	--	--	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001
Tin, dissolved	mg/l	--	--	<0.001	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.001	0.0007	<0.001	0.001	<0.001
Zinc, dissolved	mg/l	--	5	<0.005	<0.005	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	0.003	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	130	190	320	195	355
pH (Field)	-	--	--	7.85	7.2	7.3	7.2	6.8
Temperature (Field)	deg c	--	15	7.4	15	8	15.6	12.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 07-Sep-2006	P4-90 29-May-2007	P4-90 28-Aug-2007	P4-90 02-May-2008	P4-90 07-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	113	93	130	88	182
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.03	<0.02	0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	1	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	7	<5	<5	<5	<5
Chloride	mg/l	--	250	15	6	7	2	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.3	3.7	2.9	2.9	3.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	113	93	132	86	162
Nitrate as N	mg/l	10	--	0.15	0.13	0.11	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.18	0.25	0.11	<0.1	<0.1
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.3	0.51	3.21	3.05	1.99
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.02	<0.02	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	11	5	11	14	12
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	185	123	192	136	243
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.01	0.03	<0.01	<0.01	<0.01
Barium, dissolved	mg/l	1	--	0.03	0.02	0.03	0.02	0.04
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.05	0.03	0.05	0.02	0.05
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	32	29	33	26	45
Chromium, dissolved	mg/l	0.05	--	<0.001	<0.001	0.002	0.001	0.001
Cobalt, dissolved	mg/l	--	--	<0.0002	0.0006	<0.0002	<0.0002	<0.0002
Copper, dissolved	mg/l	--	1	0.001	<0.001	<0.001	0.002	<0.001
Iron, dissolved	mg/l	--	0.3	<0.03	0.07	<0.03	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 07-Sep-2006	P4-90 29-May-2007	P4-90 28-Aug-2007	P4-90 02-May-2008	P4-90 07-Aug-2008
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	8	5	12	5	12
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Potassium, dissolved	mg/l	--	--	1	1	2	2	2
Silicon, dissolved	mg/l	--	--	4.2	3.3	4.9	3.4	5.2
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	8	7	6	7	8
Strontium, dissolved	mg/l	--	--	0.188	0.147	0.214	0.139	0.298
Sulfur, dissolved	mg/l	--	--	3.7	1.7	3.7	5	4
Thallium, dissolved	mg/l	--	--	<0.0001	0.0004	<0.0001	<0.0001	<0.0001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.002	0.002	0.003	0.002	<0.001
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	-- (10)
Field Measurements								
Conductivity (Field)	uS/cm	--	--	220	150	600	135	330
pH (Field)	-	--	--	7	7.7	7.2	7.2	6.7
Temperature (Field)	deg c	--	15	15	14.3	13	8	16

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 13-Apr-2009 P-4-90	P4-90 13-Aug-2009 4-90	P4-90 01-Jun-2010 C-5	P4-90 11-Aug-2010 R-1	P4-90 29-Apr-2011 S-4
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	62	196	211	258	68
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	0.06
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2	<2	<2	<2	<2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	20	6	5	7	36
Chloride	mg/l	--	250	190	9	11	16	18
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	1.5	4.5	2.5	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	280	170	260	300	47
Nitrate as N	mg/l	10	--	<0.1	0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	0.01	<0.01	<0.01	<0.01	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	2.2	0.9	1.1	0.3	2
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	0.1	<0.1	<0.1	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	5.2	3.6 (14)	2.3 (14)	2.4 (14)	4.8
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	0.01	<0.01	0.04
Sulphate	mg/l	--	500 (6)	10	15	17	23	11
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	465	258	326	350	104
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.005	0.005	<0.005	<0.005	0.012
Barium, dissolved	mg/l	1	--	0.070	0.036	0.045	0.053	0.014
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Boron, dissolved	mg/l	5	--	0.02	0.05	0.06	0.07	0.02
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	84	46	65	74	14
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt, dissolved	mg/l	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper, dissolved	mg/l	--	1	<0.001	0.002	0.002	0.001	0.003
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	<0.1	<0.1	<0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 13-Apr-2009 P-4-90	P4-90 13-Aug-2009 4-90	P4-90 01-Jun-2010 C-5	P4-90 11-Aug-2010 R-1	P4-90 29-Apr-2011 S-4
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.0005	0.0010	<0.0005	<0.0005
Magnesium, dissolved	mg/l	--	--	17	14	24	28	3.1
Manganese, dissolved	mg/l	--	0.05	<0.002	0.003	0.007	0.016	0.002
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	0.0002	<0.0001	0.0001
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel, dissolved	mg/l	--	--	<0.001	0.001	0.004	0.004	<0.001
Potassium, dissolved	mg/l	--	--	2.6	1.6	1.6	1.8	0.9
Silicon, dissolved	mg/l	--	--	2.6	4.0	4.1	4.3	2.4
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	10	8.0	8.2	9.0	19
Strontium, dissolved	mg/l	--	--	0.52	0.28	0.41	0.45	0.088
Sulfur, dissolved	mg/l	--	--	3.2	5.2	6.2	8.0	2.8
Thallium, dissolved	mg/l	--	--	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Vanadium, dissolved	mg/l	--	--	<0.001	0.001	<0.001	<0.001	<0.001
Zinc, dissolved	mg/l	--	5	<0.005	0.007	<0.005	<0.005	0.010
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	600	412	509	540	210
pH (Field)	-	--	--	7.4	6.62	6.76	5.73	8.37
Temperature (Field)	deg c	--	15	5	12.4	10.0	13.0	4.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 23-Aug-2011 P4-90	P4-90 04-Jun-2012 4-90	P4-90 29-Aug-2012 4-90	P4-90 23-Apr-2013 S-1	P4-90 06-Sep-2013 4-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	112	200	200	99	170
Ammonia, unionized (Field)	mg/l	--	--	<0.02	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.050	<0.050	0.090	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2	<2.0	<2.0	<2.0	<2.0
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	9	16	9.4	12	6.7
Chloride	mg/l	--	250	14	9	8	7	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.5	2.3	2.0	2.4	1.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	230	230	110	190
Nitrate as N	mg/l	10	--	0.2	<0.10	0.11	0.12	0.13
Nitrite as N	mg/l	1	--	<0.01	0.011	<0.010	<0.010	<0.010
Nitrogen, Total Kjeldahl	mg/l	--	--	1	0.59	0.74	1.4	0.72
Nitrogen, Nitrate-Nitrite	mg/l	10	--	0.2	<0.10	0.11	0.12	0.13
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	0.016
Phosphorus	mg/l	--	--	2.0	3.0	2.5	2.7	9.7
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	0.010	0.011	<0.010	--
Sulphate	mg/l	--	500 (6)	14	17	16	15	12
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	194	212	258	152	200
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.005	0.0071	<0.0050	0.016	<0.0050
Barium, dissolved	mg/l	1	--	0.026	0.038	0.039	0.027	0.039
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Boron, dissolved	mg/l	5	--	0.05	0.065	0.063	0.021	0.063
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Calcium, dissolved	mg/l	--	--	36	57	58	33	50
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Copper, dissolved	mg/l	--	1	0.002	0.0013	0.0012	0.0012	0.0014
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	<0.1	<0.1	<0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 23-Aug-2011 P4-90	P4-90 04-Jun-2012 4-90	P4-90 29-Aug-2012 4-90	P4-90 23-Apr-2013 S-1	P4-90 06-Sep-2013 4-90
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Magnesium, dissolved	mg/l	--	--	9.4	21	21	6.1	16
Manganese, dissolved	mg/l	--	0.05	<0.002	0.0023	0.02	0.0023	<0.0020
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Nickel, dissolved	mg/l	--	--	0.004	0.0016	0.0018	<0.0010	0.0011
Potassium, dissolved	mg/l	--	--	1.4	1.3	1.5	2	1.7
Silicon, dissolved	mg/l	--	--	2.9	3.9	4.1	2.9	4
Silver, dissolved	mg/l	--	--	<0.0001	<0.00010	<0.00010	<0.00010	<0.00010
Sodium, dissolved	mg/l	--	200 (7)	5.8	8.1	6.9	12	6.8
Strontium, dissolved	mg/l	--	--	0.21	0.37	0.34	0.15	0.28
Sulfur, dissolved	mg/l	--	--	4.4	6.1	5.3	5.2	4.1
Thallium, dissolved	mg/l	--	--	<0.00005	<0.000050	<0.000050	<0.000050	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Vanadium, dissolved	mg/l	--	--	0.0005	0.00057	0.00087	0.0011	0.00088
Zinc, dissolved	mg/l	--	5	0.006	<0.0050	<0.0050	<0.0050	0.0084
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	150	368	490	218	343
pH (Field)	-	--	--	6.47	6.77	6.91	7.39	6.61
Temperature (Field)	deg c	--	15	13.5	7.4	12.1	4.0	12.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 12-May-2014 P4-90	P4-90 26-Aug-2014 P4-80	P4-90 20-May-2015 P-4	P4-90 18-Aug-2015 P4-90	P4-90 16-Jun-2016 P4-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	110	190	99	220	138
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.062	0.17	<0.050	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2.0	<2.0	<2.0	<2.0	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	14	4.3	17	5.6	< 5
Chloride	mg/l	--	250	5	5	--	--	4.8
Chloride, dissolved	mg/l	--	250	--	--	8	5.7	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.6	2.2	2.5	1.9	2.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	91	220	110	290	149
Nitrate as N	mg/l	10	--	<0.10	<0.10	<0.10	<0.10	0.2
Nitrite as N	mg/l	1	--	<0.010	<0.010	<0.010	<0.010	< 0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	<2.0 (19)	<1.0 (19)	0.92	0.22	0.3
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	<0.10	<0.10	<0.10	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.015	<0.010	0.011	<0.010	< 0.01
Phosphorus	mg/l	--	--	7.6	6.3	4.6	4.0	5.25
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	12	19	--	--	18
Sulphate, dissolved	mg/l	--	500 (6)	--	--	21	16	--
Total Dissolved Solids	mg/l	--	500	166	236	178	272	184
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.012	<0.0050	<0.005	<0.0050	0.02
Barium, dissolved	mg/l	1	--	0.026	0.044	0.02	0.051	0.031
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.0005	<0.00050	< 0.0001
Boron, dissolved	mg/l	5	--	0.021	0.052	0.012	0.067	0.023
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.00010	<0.0001	<0.00010	< 0.00002
Calcium, dissolved	mg/l	--	--	28	62	32	76	46.9
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.0050	<0.005	<0.0050	< 0.002
Cobalt, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.0005	<0.00050	< 0.0001
Copper, dissolved	mg/l	--	1	0.003	<0.0010	<0.001	0.0015	< 0.002
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	<0.1	<0.1	< 0.005

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 12-May-2014 P4-90	P4-90 26-Aug-2014 P4-80	P4-90 20-May-2015 P-4	P4-90 18-Aug-2015 P4-90	P4-90 16-Jun-2016 P4-90
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.00050	<0.0005	<0.00050	< 0.00002
Magnesium, dissolved	mg/l	--	--	5.2	17	6.6	25	7.8
Manganese, dissolved	mg/l	--	0.05	<0.002	0.0068	<0.002	0.012	< 0.001
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	< 0.00002
Molybdenum, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.0005	<0.00050	0.0002
Nickel, dissolved	mg/l	--	--	0.001	<0.0010	<0.001	0.0020	< 0.01
Potassium, dissolved	mg/l	--	--	1.8	2.1	0.72	1.7	1.2
Silicon, dissolved	mg/l	--	--	2.8	4.1	2.6	4.5	3.26
Silver, dissolved	mg/l	--	--	<0.0001	<0.00010	<0.0001	<0.00010	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	12	7.9	6.5	8.8	8.2
Strontium, dissolved	mg/l	--	--	0.16	0.35	0.21	0.46	0.265
Sulfur, dissolved	mg/l	--	--	3.2	6.0	6.5	5.6	5.9
Thallium, dissolved	mg/l	--	--	<0.00005	<0.000050	<0.00005	<0.000050	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.0050	<0.005	<0.0050	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0009	0.00077	<0.0005	0.00064	0.0011
Zinc, dissolved	mg/l	--	5	0.007	<0.0050	<0.005	<0.0050	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	<0.0010	<0.0010	<0.0010	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	289	410	313	339	300
pH (Field)	-	--	--	7.43	7.70	7.51	7.39	7.2
Temperature (Field)	deg c	--	15	9.3	13.8	9.1	10.1	9.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 22-Aug-2016 P4-90	P4-90 2-May-2017 P4-90	P4-90 21-Sep-2017 P4-90	P4-90 01-May-2018 P4-90	P4-90 21-Aug-2018 P4-90
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	177	93	161	109	231
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	< 3	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	14	21	13	63	24
Chloride	mg/l	--	250	3.8	3.2	5.6	6.2	4.5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	384	298	490
Dissolved Organic Carbon	mg/l	--	5	1.8	2.8	3	2.9	2.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	184	102	196	146	252
Nitrate as N	mg/l	10	--	0.1	< 0.05	< 0.05	0.23	< 0.05
Nitrite as N	mg/l	1	--	0.2	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	0.3	0.87	0.4	0.9	0.3
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	0.03	0.01	0.02	< 0.01
Phosphorus	mg/l	--	--	2.03	6.66	2.31	6.23	0.79
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	20	11	17	22	22
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	241	114	191	154	262
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.02	< 0.01	0.04	0.03	0.05
Barium, dissolved	mg/l	1	--	0.037	0.024	0.039	0.033	0.044
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.047	0.022	0.046	0.018	0.054
Cadmium, dissolved	mg/l	0.005	--	< 0.00002	< 0.000014	< 0.000014	< 0.000015	0.000021
Calcium, dissolved	mg/l	--	--	50.7	32.4	54.6	47.9	69.5
Chromium, dissolved	mg/l	0.05	--	< 0.002	< 0.002	< 0.002	< 0.001	0.003
Cobalt, dissolved	mg/l	--	--	< 0.0001	< 0.005	< 0.005	< 0.0001	0.0004
Copper, dissolved	mg/l	--	1	< 0.002	< 0.002	< 0.002	0.0016	0.0011
Iron, dissolved	mg/l	--	0.3	< 0.005	< 0.005	< 0.005	0.006	< 0.005

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P4-90 22-Aug-2016 P4-90	P4-90 2-May-2017 P4-90	P4-90 21-Sep-2017 P4-90	P4-90 01-May-2018 P4-90	P4-90 21-Aug-2018 P4-90
Lead, dissolved	mg/l	0.01	--	0.00003	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	13.9	5.07	14.4	6.37	19.1
Manganese, dissolved	mg/l	--	0.05	0.001	0.002	0.007	0.001	0.018
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	0.0002	0.0002	0.0002	0.0003	0.0002
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	1.5	1.5	1.7	2.2	1.6
Silicon, dissolved	mg/l	--	--	4.12	3.02	4.67	2.76	4.18
Silver, dissolved	mg/l	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 (7)	8.5	5.3	8.6	4.8	7.4
Strontium, dissolved	mg/l	--	--	0.305	0.164	0.308	0.213	0.402
Sulfur, dissolved	mg/l	--	--	5.4	4.3	7.3	6.8	7.8
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--		
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0018	0.0013	0.0015	0.0008	0.0009
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	< 0.005	< 0.005	0.016
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	< 0.001	< 0.001	--	0.019
Field Measurements								
Conductivity (Field)	uS/cm	--	--	387	223	316	242	375
pH (Field)	-	--	--	6.8	6.6	6.8	3.4	7.0
Temperature (Field)	deg c	--	15	10.7	7.8	12.7	7.1	11.4

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P5B-91 09-Aug-1991	P5B-91 04-Dec-1991	P5B-91 01-May-1992	P5B-91 07-Sep-1992	P5B-91 28-Nov-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	286	674	950	500	646
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	<0.1	<0.1	0.28
Bicarbonate	mg/l	--	--	349	822	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	13	11	8
Bromide	mg/l	--	--	--	--	<0.5	0.9	0.5
Carbonate (CO3)	mg/l	--	--	<1	<1	--	--	--
Chemical Oxygen Demand	mg/l	--	--	88	278	152	58	86
Chloride	mg/l	--	250	79	180	298	174	206
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10.3	69.6	--	--	--
Fluoride	mg/l	1.5	--	--	--	0.09	0.09	0.09
Hardness, Calcium Carbonate	mg/l	--	80-100	361	789	1222	619	740
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	8.8	1.68	2.22	1.15	1.31
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	8.8	--	2.22	1.15	1.03
Phosphate	mg/l	--	--	--	--	0.22	0.28	0.28
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	2.11	0.32	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	13	7	18	4	<3
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	612	952	1490	940	1010
Total Organic Carbon	mg/l	--	--	--	--	70	26	35
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	<0.03	<0.03	<0.01
Barium, dissolved	mg/l	1	--	--	--	0.13	0.11	0.13
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	0.63	0.54	0.59
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	98	235	351	159	204
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.05	<0.05	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	<0.05	1.21	0.76	3.65	5.07

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 09-Aug-1991	P5B-91 04-Dec-1991	P5B-91 01-May-1992	P5B-91 07-Sep-1992	P5B-91 28-Nov-1992
Lead, dissolved	mg/l	0.01	--	<0.05	<0.05	<0.002	0.004	<0.002
Magnesium, dissolved	mg/l	--	--	28	49	84	54	56
Manganese, dissolved	mg/l	--	0.05	1.02	7.73	10.98	9.31	8.54
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.1	**0.15**	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.05	0.09	<0.01	<0.01	0.03
Potassium, dissolved	mg/l	--	--	3	3	3	3	5
Silicon, dissolved	mg/l	--	--	--	--	9.1	13.2	11.2
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	31	75	100	79	96
Strontium, dissolved	mg/l	--	--	--	--	1.66	1.26	1.42
Sulfur, dissolved	mg/l	--	--	--	--	11	5	8
Thallium, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	0.02	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.11	0.09	0.03	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	0.008	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	837	1651	2420	1400	1500
Temperature (Field)	deg c	--	--	6.9	6.47	6.4	6.3	6.3
pH (Field)		--	15	--	--	9	8	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 03-May-1993	P5B-91 10-Nov-1993	P5B-91 03-Jun-1994	P5B-91 09-Sep-1994	P5B-91 24-Nov-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1186	634	886	321	755
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	3.45	2.83	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	14	5	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	169	120	155	45	122
Chloride	mg/l	--	250	332	223	325	169	230
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	64	46	73.4	18.6	70
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1234	656	1020	401	807
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	7.5	7	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	4.05	4.17	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	0.19	0.16	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	23	13	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1660	1040	1740	710	1248
Total Organic Carbon	mg/l	--	--	79	62	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	<0.03	<0.03	<0.03	--
Barium, dissolved	mg/l	1	--	0.2	0.13	0.22	0.16	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Boron, dissolved	mg/l	5	--	0.67	0.5	0.56	0.25	--
Cadmium, dissolved	mg/l	0.005	--	0.004	<0.002	<0.00015	<0.00015	--
Calcium, dissolved	mg/l	--	--	336	187	308	157	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	**0.13**	0.01	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.0004	<0.0004	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.005	0.014	--
Iron, dissolved	mg/l	--	0.3	4.88	2.89	3.53	3.64	5.76

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 03-May-1993	P5B-91 10-Nov-1993	P5B-91 03-Jun-1994	P5B-91 09-Sep-1994	P5B-91 24-Nov-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	--
Magnesium, dissolved	mg/l	--	--	96	46	61	2	--
Manganese, dissolved	mg/l	--	0.05	13.5	7.7	11.4	5.5	8.23
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	<0.0002	<0.0002	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Nickel, dissolved	mg/l	--	--	0.07	<0.01	0.03	0.02	--
Potassium, dissolved	mg/l	--	--	4	7	15	15	--
Silicon, dissolved	mg/l	--	--	8.8	7.1	6.8	7.5	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.0001	0.0012	--
Sodium, dissolved	mg/l	--	200 (7)	148	119	207	61	135
Strontium, dissolved	mg/l	--	--	2.75	1.32	2.01	1.23	1.71
Sulfur, dissolved	mg/l	--	--	9	9	10	6	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.005	<0.005	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.007	0.009	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	0.01	0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.001	<0.001	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2750	1625	2600	1050	2050
Temperature (Field)	deg c	--	--	6	6.5	6.5	6.5	7
pH (Field)		--	15	9	8.5	7.5	12	9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 04-Jun-1995	P5B-91 11-Sep-1995	P5B-91 07-Nov-1995	P5B-91 16-Jul-1996	P5B-91 21-Nov-1996
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1298	795	1089	776	790
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	22.9	16.9	--	7.81	31
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	7	7	--	5	5
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	185	116	161	117	121
Chloride	mg/l	--	250	338	179	215	139	154
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	108	41	76.1	43.1	45.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1071	715	928	597	584
Nitrate as N	mg/l	10	--	<0.1	<0.1	--	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	--	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	24.3	22.8	--	14.8	33.4
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	1.4	5.9	--	6.99	2.4
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.15	3.36	--	0.17	0.2
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	23	23	--	20	19
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1840	1196	1524	1044	1096
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	<0.03	--	0.52	0.49
Barium, dissolved	mg/l	1	--	0.44	0.35	--	0.21	0.26
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	0.01
Boron, dissolved	mg/l	5	--	0.84	0.7	--	0.53	0.46
Cadmium, dissolved	mg/l	0.005	--	<0.00015	<0.00015	--	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	313	202	--	168	158
Chromium, dissolved	mg/l	0.05	--	**0.08**	<0.01	--	**0.09**	<0.01
Cobalt, dissolved	mg/l	--	--	0.0143	0.0076	--	<0.01	<0.01
Copper, dissolved	mg/l	--	1	0.005	<0.005	--	0.018	<0.005
Iron, dissolved	mg/l	--	0.3	8.42	5.53	11.3	2.71	11.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 04-Jun-1995	P5B-91 11-Sep-1995	P5B-91 07-Nov-1995	P5B-91 16-Jul-1996	P5B-91 21-Nov-1996
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	--	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	70	51	--	43	46
Manganese, dissolved	mg/l	--	0.05	13.4	7.55	10.5	6.82	5.29
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	0.0006	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.03
Nickel, dissolved	mg/l	--	--	<0.01	0.01	--	<0.01	0.02
Potassium, dissolved	mg/l	--	--	34	28	--	23	42
Silicon, dissolved	mg/l	--	--	8.9	12.5	--	11.2	8.3
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	--	<0.01	<0.001
Sodium, dissolved	mg/l	--	200 (7)	214	124	159	121	129
Strontium, dissolved	mg/l	--	--	2.45	1.47	1.98	1.59	1.03
Sulfur, dissolved	mg/l	--	--	9	10	--	7	8
Thallium, dissolved	mg/l	--	--	<0.005	<0.005	--	1.3	<0.2
Tin, dissolved	mg/l	--	--	--	--	--	--	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.01	<0.007	--	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	--	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	0.003	--	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3300	2300	2425	1140	1300
Temperature (Field)	deg c	--	--	6.5	6.6	7	6.6	6
pH (Field)		--	15	10	13	14	9	6.5

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P5B-91 10-Jun-1997	P5B-91 11-Sep-1997	P5B-91 11-Jun-1998	P5B-91 19-Aug-1998	P5B-91 25-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1344	818	1481	1285	1554
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	28.5	32.4	65.6	60.8	106
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	9	8	7	6	52
Bromide	mg/l	--	--	--	24	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	184	126	120	157	220
Chloride	mg/l	--	250	258	145	203	153	284
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	74.8	52	75	59	78.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1060	629	1080	841	1015
Nitrate as N	mg/l	10	--	<0.1	0.17	<0.1	<0.1	0.15
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	0.11	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	34.4	33.1	65.6	60.8	106
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	5.9	0.7	0	0	<0.1
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.57	0.47	0.53	0.2	0.31
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	34	--	27	19	23
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1764	1208	1816	1512	1908
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.08	<0.03	<0.03	<0.03	<0.03
Barium, dissolved	mg/l	1	--	0.46	0.35	0.8	0.46	0.83
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.64	0.46	0.91	0.75	0.89
Cadmium, dissolved	mg/l	0.005	--	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	324	171	304	231	281
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.005	<0.005	<0.005	<0.005	<0.005
Iron, dissolved	mg/l	--	0.3	5.15	4.83	5.3	0.35	10.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 10-Jun-1997	P5B-91 11-Sep-1997	P5B-91 11-Jun-1998	P5B-91 19-Aug-1998	P5B-91 25-May-1999
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	61	49	77	64	76
Manganese, dissolved	mg/l	--	0.05	8.87	5.49	8.8	7.44	8.35
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0002	<0.002	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.03	<0.03	<0.03	0.23	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	71	60	88	91	135
Silicon, dissolved	mg/l	--	--	10	9.2	7.7	10	12.9
Silver, dissolved	mg/l	--	--	<0.004	0	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	240	139	221	155	188
Strontium, dissolved	mg/l	--	--	2.11	1.09	1.99	1.7	1.89
Sulfur, dissolved	mg/l	--	--	11	9	<3	7	9
Thallium, dissolved	mg/l	--	--	<0.2	<0.2	<0.2	<0.2	<0.2
Tin, dissolved	mg/l	--	--	--	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.05	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	<0.002	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1950	1600	2060	2800	2500
Temperature (Field)	deg c	--	--	6.6	7.3	7	6.9	6.91
pH (Field)		--	15	7	15	12	12	8

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P5B-91 31-Aug-1999	P5B-91 31-May-2000	P5B-91 17-Aug-2000	P5B-91 27-May-2001	P5B-91 28-May-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1120	1510	1410	1350	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	45.3	90.5	86.1	74	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	6	15	16	13	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	220	160	169	156	--
Chloride	mg/l	--	250	130	186	129	129	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	73.1	65.8	67.8	70.8	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	884	852	859	781	--
Nitrate as N	mg/l	10	--	<0.1	0.41	<0.1	<0.1	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	48.2	101	111	80	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	2.9	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.12	0.96	1.32	0.49	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	50	21	22	36	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1440	1610	1480	1440	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.08	0.08	0.09	0.11	--
Barium, dissolved	mg/l	1	--	0.4	0.7	0.53	0.6	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.002	<0.002	<0.002	--
Boron, dissolved	mg/l	5	--	0.65	0.89	0.9	1.1	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	<0.0001	<0.0001	<0.0001	--
Calcium, dissolved	mg/l	--	--	250	227	235	212	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	0.008	--
Cobalt, dissolved	mg/l	--	--	<0.01	0.0058	0.005	0.0042	--
Copper, dissolved	mg/l	--	1	0.038	<0.01	0.002	0.001	--
Iron, dissolved	mg/l	--	0.3	8.08	33.5	22.7	42.6	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 31-Aug-1999	P5B-91 31-May-2000	P5B-91 17-Aug-2000	P5B-91 27-May-2001	P5B-91 28-May-2001
Lead, dissolved	mg/l	0.01	--	<0.002	<0.001	<0.001	<0.001	--
Magnesium, dissolved	mg/l	--	--	63	69	66	61	--
Manganese, dissolved	mg/l	--	0.05	4.52	6.3	5.24	5.73	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0001	<0.0001	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Potassium, dissolved	mg/l	--	--	88	126	152	129	--
Silicon, dissolved	mg/l	--	--	15.1	11.5	10.8	11.4	--
Silver, dissolved	mg/l	--	--	0.02	<0.001	<0.0001	0.0007	--
Sodium, dissolved	mg/l	--	200 (7)	161	164	157	136	--
Strontium, dissolved	mg/l	--	--	1.32	1.48	1.22	1.28	--
Sulfur, dissolved	mg/l	--	--	17	11	11	--	--
Thallium, dissolved	mg/l	--	--	<0.5	<0.001	<0.001	<0.001	--
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	0.04	<0.01	<0.01	<0.01	--
Vanadium, dissolved	mg/l	--	--	<0.01	0.029	0.011	0.006	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	-- (11)	2850	2900	2200	--
Temperature (Field)	deg c	--	--	-- (11)	6.82	7.16	6.7	--
pH (Field)		--	15	-- (11)	9	14	9	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 08-Aug-2001 (9)	P5B-91 03-Apr-2002	P5B-91 06-Aug-2002	P5B-91 13-May-2003	P5B-91 26-Aug-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	1480	1210	1430	1380
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	95.7	56	79	77
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	5	8	9	8
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	149	132	146	203
Chloride	mg/l	--	250	--	167	109	149	123
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	67.4	52.6	51.6	63.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	860	832	1020	1040
Nitrate as N	mg/l	10	--	--	<0.1	<0.1	4.6	0.64
Nitrite as N	mg/l	1	--	--	<0.1	<0.1	0.23	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	128	74.6	104	95.9
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.63	2.19	0.36	0.69
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	0.18	0.19	0.06
Sulphate	mg/l	--	500 (6)	--	24	64	72	46
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	2010	1590	1960	1830
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.07	0.07	0.04	0.04
Barium, dissolved	mg/l	1	--	--	0.21	0.57	0.5	0.62
Beryllium, dissolved	mg/l	--	--	--	<0.002	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	--	1.11	1.02	0.96	1.26
Cadmium, dissolved	mg/l	0.005	--	--	<0.0001	<0.0001	<0.001	<0.001
Calcium, dissolved	mg/l	--	--	--	224	231	273	309
Chromium, dissolved	mg/l	0.05	--	--	**0.076**	0.049	0.02	<0.01
Cobalt, dissolved	mg/l	--	--	--	0.0079	0.0082	0.009	0.006
Copper, dissolved	mg/l	--	1	--	0.004	0.002	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	--	0.36	48.3	35.5	31.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 08-Aug-2001 (9)	P5B-91 03-Apr-2002	P5B-91 06-Aug-2002	P5B-91 13-May-2003	P5B-91 26-Aug-2003
Lead, dissolved	mg/l	0.01	--	--	<0.001	<0.001	<0.01	<0.01
Magnesium, dissolved	mg/l	--	--	--	73	62	81	65
Manganese, dissolved	mg/l	--	0.05	--	5.62	5.41	8.31	5.14
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	--	<0.01	0.009	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	--	<0.01	<0.005	<0.005	<0.005
Potassium, dissolved	mg/l	--	--	--	134	107	132	120
Silicon, dissolved	mg/l	--	--	--	8.54	13.4	9.7	8
Silver, dissolved	mg/l	--	--	--	<0.0001	<0.0001	<0.001	<0.001
Sodium, dissolved	mg/l	--	200 (7)	--	176	112	148	125
Strontium, dissolved	mg/l	--	--	--	1.01	1.87	2.02	1.7
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	<0.001	<0.001	<0.01	<0.01
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	0.023	0.019	0.01	<0.01
Zinc, dissolved	mg/l	--	5	--	0.01	<0.005	<0.005	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	2850	1950	3100	3410
Temperature (Field)	deg c	--	--	--	6.6	6.8	6.8	6.9
pH (Field)		--	15	--	8	15	8	15

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 26-May-2004	P5B-91 30-Aug-2004	P5B-91 26-May-2005	P5B-91 26-Aug-2005	P5B-91 03-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1180	1340	1320	1220	1450
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	48.7	56.7	66.7	40.8	91.3
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	7	11.8	7	15	8
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	301	147	142	160	192
Chloride	mg/l	--	250	96	129	128	209	141
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	45.7	62.7	52	54.7	61.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	727.4	872.8	832	1060	821
Nitrate as N	mg/l	10	--	<0.2	<0.2	<0.1	1.68	0.24
Nitrite as N	mg/l	1	--	<0.2	<0.2	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	49.1	77.5	80	45	96
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.05	0.22	0.65	1.18	0.33
Phosphorus (dissolved reactive)	mg/l	--	--	<0.003	<0.003	0.24	0.19	0.07
Sulphate	mg/l	--	500 (6)	43.6	50.7	32	40	11
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1324	1496	1780	1830	1930
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.008	0.012	<0.01	<0.01	<0.01
Barium, dissolved	mg/l	1	--	0.554	0.566	0.67	0.45	0.51
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	1.18	1.24	1.19	0.9	0.98
Cadmium, dissolved	mg/l	0.005	--	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	204	263	249	316	248
Chromium, dissolved	mg/l	0.05	--	0.007	<0.005	0.01	0.014	0.007
Cobalt, dissolved	mg/l	--	--	0.0073	0.0051	0.0075	0.0066	0.0082
Copper, dissolved	mg/l	--	1	0.0016	0.0015	0.001	0.001	0.003
Iron, dissolved	mg/l	--	0.3	20.8	41.9	55.9	75.8	53.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 26-May-2004	P5B-91 30-Aug-2004	P5B-91 26-May-2005	P5B-91 26-Aug-2005	P5B-91 03-Jun-2006
Lead, dissolved	mg/l	0.01	--	<0.0005	0.0011	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	52.8	52.1	51	65	49
Manganese, dissolved	mg/l	--	0.05	5.17	5.34	6.4	11.1	7.3
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.002	0.001	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	0.014	0.009	0.014	0.018	0.015
Potassium, dissolved	mg/l	--	--	131	122	108	71	121
Silicon, dissolved	mg/l	--	--	8.31	9.76	12.2	17.3	10.9
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	105	96.9	98	98	106
Strontium, dissolved	mg/l	--	--	1.29	1.3	1.55	1.8	1.53
Sulfur, dissolved	mg/l	--	--	8.9	15.9	10.7	13.3	3.7
Thallium, dissolved	mg/l	--	--	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001
Tin, dissolved	mg/l	--	--	<0.001	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	0.17	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.0108	0.0117	0.025	0.032	0.013
Zinc, dissolved	mg/l	--	5	<0.005	0.014	<0.01	<0.01	0.03
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.004	0.005	0.002	0.002	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2530	--	2740	2350	3665
Temperature (Field)	deg c	--	--	6.68	--	6.4	7	6.8
pH (Field)		--	15	10.4	--	10	17.9	10

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P5B-91 07-Sep-2006	P5B-91 29-May-2007	P5B-91 28-Aug-2007	P5B-91 02-May-2008	P5B-91 07-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1120	1370	1070	1430	1310
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	27.6	65.4	32.1	93.3	60.4
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	8	5	14	29
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	216	150	136	148	149
Chloride	mg/l	--	250	152	3	125	127	125
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	65.7	57.9	51.7	57.3	56.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	926	903	876	911	818
Nitrate as N	mg/l	10	--	0.15	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	27.5	79.8	34.3	105	61.4
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.04	1.25	1.35	1.11	1.42
Phosphorus (dissolved reactive)	mg/l	--	--	0.18	0.03	0.15	<0.01	0.01
Sulphate	mg/l	--	500 [6]	43	36	66	20	36
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1630	1810	1540	1930	1740
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.01	0.01	<0.01	0.02	<0.01
Barium, dissolved	mg/l	1	--	0.3	0.52	0.36	0.54	0.48
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	1.03	1.29	1.14	1.3	1.21
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	280	266	265	271	240
Chromium, dissolved	mg/l	0.05	--	0.007	<0.005	<0.005	<0.005	<0.005
Cobalt, dissolved	mg/l	--	--	0.0062	0.0091	0.0066	0.0116	0.0067
Copper, dissolved	mg/l	--	1	0.001	0.001	<0.001	0.001	<0.001
Iron, dissolved	mg/l	--	0.3	49.1	50.3	45.5	51.5	47

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 07-Sep-2006	P5B-91 29-May-2007	P5B-91 28-Aug-2007	P5B-91 02-May-2008	P5B-91 07-Aug-2008
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	55	58	52	57	53
Manganese, dissolved	mg/l	--	0.05	11.6	8.18	9.81	5.36	6.88
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	0.014	0.019	0.011	0.015	0.011
Potassium, dissolved	mg/l	--	--	46	89	54	121	82
Silicon, dissolved	mg/l	--	--	17.3	14.4	16.5	12	18
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	122	127	108	141	102
Strontium, dissolved	mg/l	--	--	1.47	1.85	1.6	1.55	1.29
Sulfur, dissolved	mg/l	--	--	14.3	12	22	7	12
Thallium, dissolved	mg/l	--	--	<0.0001	0.0003	<0.0001	<0.0001	<0.0001
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.017	0.022	0.039	0.06	0.042
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2515	2150	1950	2200	2500
Temperature (Field)	deg c	--	--	6.6	7	6.8	6.7	6.9
pH (Field)		--	15	16	14.3	16.2	7.5	18

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 14-Apr-2009 P-5B-91	P5B-91 14-Aug-2009 (36) 5B-91	P5B-91 31-May-2010 (37) M-3	P5B-91 12-Aug-2010 (29) R-5	P5B-91 02-May-2011 (29) SV-1
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1390	1270	1380	1610	1210
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	120 (38)	60 (38)	80	98	95 (38)
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	9	9	10	10	9
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	160	170	190	220	170
Chloride	mg/l	--	250	130	260	140	120	150
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	65.2	48.8	63	69	48.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	790	940	950	1100	570
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.01	0.02	<0.01	<0.01	0.04
Nitrogen, Total Kjeldahl	mg/l	--	--	110 (38)	57 (38)	89	99	85 (38)
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.66	0.82 (14)	0.66	0.6	0.54
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	<1	<1	<1	<1	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1800	1730	1900	2100	1680
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.013	0.008	0.008	0.007	0.006
Barium, dissolved	mg/l	1	--	0.70	0.49	0.59	0.65	0.43
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Boron, dissolved	mg/l	5	--	1.2	1.2	1.4	1.2	1.1
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	220	270	280	310	160
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.005	<0.005	0.007	<0.005
Cobalt, dissolved	mg/l	--	--	0.010	0.0056	0.0071	0.0058	0.0053
Copper, dissolved	mg/l	--	1	0.002	0.001	<0.001	<0.001	<0.001
Iron, dissolved	mg/l	--	0.3	59	61	72	69	20

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 14-Apr-2009 P-5B-91	P5B-91 14-Aug-2009 (36) 5B-91	P5B-91 31-May-2010 (37) M-3	P5B-91 12-Aug-2010 (29) R-5	P5B-91 02-May-2011 (29) SV-1
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Magnesium, dissolved	mg/l	--	--	56	66	63	73	39
Manganese, dissolved	mg/l	--	0.05	4.2	8.1	7.1	8.4	2.3
Mercury	mg/l	--	--	--(21)	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0015(21)	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.001	<0.001	<0.001	0.001	<0.001
Nickel, dissolved	mg/l	--	--	0.011	0.007	0.010	0.009	0.011
Potassium, dissolved	mg/l	--	--	140	82	97	99	120
Silicon, dissolved	mg/l	--	--	10	14	15	13	7.8
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	140	130	140	140	110
Strontium, dissolved	mg/l	--	--	1.4	1.5	1.5	1.7	0.94
Sulfur, dissolved	mg/l	--	--	6.0	13.0	14.0	11.3	5.8
Thallium, dissolved	mg/l	--	--	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Vanadium, dissolved	mg/l	--	--	0.011	0.009	0.009	0.011	0.004
Zinc, dissolved	mg/l	--	5	<0.005	<0.005	<0.005	0.008	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	0.002	0.002	0.002	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2800	2359	2992	--	2619
Temperature (Field)	deg c	--	--	7.8	6.38	6.53	--	6.70
pH (Field)		--	15	8	17.4	12.6	--	9.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 23-Aug-2011 (29) P5B-91	P5B-91 04-Jun-2012 (27) 5B-91	P5B-91 29-Aug-2012 (12) P5B-91	P5B-91 23-Apr-2013 SV-1	P5B-91 06-Sep-2013 (29) P5B-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1130	1300	--	1200	1400
Ammonia, unionized (Field)	mg/l	--	--	<0.06	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	48	89	--	110 (38)	65
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	9	11	--	8.0	4.0
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	170	160	--	130	190
Chloride	mg/l	--	250	160	60	--	86	95
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	53.8	55	--	45	63
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	950	710	--	630	850
Nitrate as N	mg/l	10	--	<0.1	<0.10	--	**12**	<0.10
Nitrite as N	mg/l	1	--	0.09	<0.010	--	0.69	0.17
Nitrogen, Total Kjeldahl	mg/l	--	--	48	95	--	100 (38)	73
Nitrogen, Nitrate-Nitrite	mg/l	10	--	0.2	<0.10	--	**13**	0.23
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	<0.010
Phosphorus	mg/l	--	--	0.59	0.41	--	0.15	5.2
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.010	--	<0.010	--
Sulphate	mg/l	--	500 (6)	35	<1	--	<1	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1740	1250	--	1140	1490
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.007	0.016	--	0.0077	0.0085
Barium, dissolved	mg/l	1	--	0.45	0.51	--	0.47	0.54
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.00050	--	<0.00050	<0.00050
Boron, dissolved	mg/l	5	--	1.2	1.2	--	1.2	1.4
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.00010	--	<0.00010	<0.00010
Calcium, dissolved	mg/l	--	--	260	210	--	190	260
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.0050	--	0.0075	0.0051
Cobalt, dissolved	mg/l	--	--	0.0065	0.0070	--	0.0042	0.0044
Copper, dissolved	mg/l	--	1	0.001	<0.0010	--	0.0027	<0.0010
Iron, dissolved	mg/l	--	0.3	56	57	--	0.96	49

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 23-Aug-2011 (29) P5B-91	P5B-91 04-Jun-2012 (27) 5B-91	P5B-91 29-Aug-2012 (12) P5B-91	P5B-91 23-Apr-2013 SV-1	P5B-91 06-Sep-2013 (29) P5B-91
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.00050	--	<0.00050	<0.00050
Magnesium, dissolved	mg/l	--	--	69	43	--	39	52
Manganese, dissolved	mg/l	--	0.05	8.1	4.3	--	2.2	5.7
Mercury	mg/l	--	--	--	<0.0001	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.0005	0.00081	--	0.00090	0.00071
Nickel, dissolved	mg/l	--	--	0.011	0.0066	--	0.0086	0.0046
Potassium, dissolved	mg/l	--	--	71	110	--	120	89
Silicon, dissolved	mg/l	--	--	13	9.7	--	5.9	11
Silver, dissolved	mg/l	--	--	<0.0001	<0.00010	--	<0.00010	<0.00010
Sodium, dissolved	mg/l	--	200 (7)	120	94	--	110	120
Strontium, dissolved	mg/l	--	--	1.4	1.3	--	0.93	1.4
Sulfur, dissolved	mg/l	--	--	19.1	<5	--	1.7	4.8
Thallium, dissolved	mg/l	--	--	<0.00005	<0.000050	--	<0.000050	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.0050	--	<0.0050	<0.0050
Vanadium, dissolved	mg/l	--	--	0.0068	0.011	--	0.0026	0.0081
Zinc, dissolved	mg/l	--	5	0.011	<0.0050	--	0.0051	<0.0050
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	0.0085	--	0.0059	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2254	2366	--	2412	2352
Temperature (Field)	deg c	--	--	6.59	6.67	--	6.73	6.70
pH (Field)		--	15	17.4	11.6	--	9.5	15.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 12-May-2014 (30)	P5B-91 26-Aug-2014	P5B-91 20-May-2015	P5B-91 18-Aug-2015 (31)	P5B-91 16-June-2016
				P5B-91	P5B-91	P5B-91	P5B-91	P5B-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1400	1300	1200	1500	1580
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	95	71 (38)	90	94 (38)	87.3
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	8.0	3.0	13	23	24
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	150	180	150	200	244
Chloride	mg/l	--	250	78	130	--	--	132
Chloride, dissolved	mg/l	--	250	--	--	68	90	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	56	57	42	50	64.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	810	860	650	870	826
Nitrate as N	mg/l	10	--	3.48	0.51	0.37	0.12	0.2
Nitrite as N	mg/l	1	--	0.210	0.160	0.189	0.089	0.6
Nitrogen, Total Kjeldahl	mg/l	--	--	95	65 (38)	100	90 (38)	104
Nitrogen, Nitrate-Nitrite	mg/l	10	--	3.69	0.67	0.56	0.21	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	0.02
Phosphorus	mg/l	--	--	1.3	1.2	1.4	1.5	1.35
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	<1	<1	--	--	11
Sulphate, dissolved	mg/l	--	500 (6)	--	--	<1	<1.0	--
Total Dissolved Solids	mg/l	--	500	1320	1490	1420	1460	1897
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.008	0.0092	0.006	0.0082	0.07
Barium, dissolved	mg/l	1	--	0.46	0.44	0.38	0.45	0.512
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.00050	<0.0005	<0.00050	< 0.0001
Boron, dissolved	mg/l	5	--	1.2	1.5	1.2	1.6	1.77
Cadmium, dissolved	mg/l	0.005	--	0.0001	<0.00010	<0.0001	<0.00010	0.00006
Calcium, dissolved	mg/l	--	--	240	260	200	280	255
Chromium, dissolved	mg/l	0.05	--	<0.03	<0.0050	<0.005	<0.0050	0.003
Cobalt, dissolved	mg/l	--	--	0.0063	0.0049	0.0058	0.0038	0.0041
Copper, dissolved	mg/l	--	1	0.001	0.0020	0.002	<0.0010	< 0.002
Iron, dissolved	mg/l	--	0.3	42	50	36	62	39.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 12-May-2014 (30)	P5B-91 26-Aug-2014	P5B-91 20-May-2015	P5B-91 18-Aug-2015 (31)	P5B-91 16-June-2016
				P5B-91	P5B-91	P5B-91	P5B-91	P5B-91
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.00050	<0.0005	<0.00050	< 0.00002
Magnesium, dissolved	mg/l	--	--	52	54	38	44	45.9
Manganese, dissolved	mg/l	--	0.05	5.8	6.1	2.4	4.8	5.25
Mercury	mg/l	--	--	--	--	--	<0.0001	< 0.00002
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	--	--
Molybdenum, dissolved	mg/l	--	--	0.0007	0.00099	0.0005	0.00058	0.0016
Nickel, dissolved	mg/l	--	--	0.009	0.0081	0.006	0.0042	< 0.01
Potassium, dissolved	mg/l	--	--	98	76	86	92	87.2
Silicon, dissolved	mg/l	--	--	9.8	12	8.3	10	11.2
Silver, dissolved	mg/l	--	--	<0.0001	<0.00010	<0.0001	<0.00010	0.00002
Sodium, dissolved	mg/l	--	200 (7)	120	140	79	110	163
Strontium, dissolved	mg/l	--	--	1.3	1.4	1.2	1.4	1.48
Sulfur, dissolved	mg/l	--	--	1.9	7.0	2.2	4.2	6.7
Thallium, dissolved	mg/l	--	--	<0.00005	<0.000050	<0.00005	<0.000050	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.0050	<0.005	<0.0050	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0086	0.0082	0.0051	0.0088	0.0128
Zinc, dissolved	mg/l	--	5	<0.005	0.0097	0.028	<0.0050	0.008
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.0074	0.0095	<0.0010	<0.0020 (33)	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2374	2789	2408	2396	2780
Temperature (Field)	deg c	--	--	6.72	6.85	6.70	6.66	13.1
pH (Field)		--	15	12.9	15.9	11.9	12.9	6.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 22-Aug-2016 P5B-91	P5B-91 02-May-2017 P5B-91	P5B-91 21-Sep-2017 P5B-91	P5B-91 01-May-2018 P5B-91	P5B-91 21-Aug-2018 P5B-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1430	1200	1270	1240	1470
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	73	85.9	81.7	90.1	74.1
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	11	4	14	6	6
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	234	137	197	187	294
Chloride	mg/l	--	250	130	57.6	77	63.7	11.2
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	2400	1870	2410
Dissolved Organic Carbon	mg/l	--	5	72.3	40.8	64.1	54.1	56
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	953	727	838	647	853
Nitrate as N	mg/l	10	--	0.1	9.39	< 0.05	0.33	< 0.05
Nitrite as N	mg/l	1	--	< 0.1	0.14	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	84.7	89.2	93.7	103	124
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.01	< 0.01	0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.94	1.42	1.64	0.4	20.6
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	11	3	13	11	2
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2130	1400	1394	1316	1599
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.08	0.07	0.12	0.1	0.12
Barium, dissolved	mg/l	1	--	0.44	0.433	0.632	0.472	0.515
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	1.84	1.42	1.78	1.34	1.77
Cadmium, dissolved	mg/l	0.005	--	< 0.00002	0.000048	< 0.000014	0.000036	< 0.000015
Calcium, dissolved	mg/l	--	--	288	223	260	199	258
Chromium, dissolved	mg/l	0.05	--	0.003	0.003	0.004	0.002	0.003
Cobalt, dissolved	mg/l	--	--	0.0036	0.0036	0.009	0.0047	0.0044
Copper, dissolved	mg/l	--	1	< 0.002	< 0.002	< 0.002	0.0011	0.0003
Iron, dissolved	mg/l	--	0.3	53.3	45.5	70.2	48.7	57.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5B-91 22-Aug-2016 P5B-91	P5B-91 02-May-2017 P5B-91	P5B-91 21-Sep-2017 P5B-91	P5B-91 01-May-2018 P5B-91	P5B-91 21-Aug-2018 P5B-91
Lead, dissolved	mg/l	0.01	--	0.00003	< 0.00002	0.00005	0.00008	0.00004
Magnesium, dissolved	mg/l	--	--	56.9	41	45.7	36.3	50.6
Manganese, dissolved	mg/l	--	0.05	6.2	5.55	4.81	3.38	5.2
Mercury	mg/l	--	--	< 0.00002	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	0.00003	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	0.0006	0.0007	0.0006	0.0004	0.0004
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	75.4	84.7	104	98.9	86
Silicon, dissolved	mg/l	--	--	12.3	9.33	12.1	8.96	11
Silver, dissolved	mg/l	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 (7)	170	105	123	110	153
Strontium, dissolved	mg/l	--	--	1.61	1.32	1.5	1.2	1.43
Sulfur, dissolved	mg/l	--	--	6.6	4.3	6.9	5.8	11.4
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0156	0.0183	0.013	0.0061	0.0093
Zinc, dissolved	mg/l	--	5	0.005	0.005	0.005	< 0.005	0.009
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.004	< 0.001	< 0.001	< 0.001	0.02
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3180	2200	2220	1863	1470
Temperature (Field)	deg c	--	--	14.5	8.7	14.1	6.6	14.8
pH (Field)		--	15	6.7	6.7	6.7	8.2	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 09-Aug-1991	P6-91 04-Dec-1991	P6-91 30-Apr-1992	P6-91 07-Sep-1992	P6-91 27-Nov-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	125	262	244	202	46
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	<0.1	<0.1	<0.1
Bicarbonate	mg/l	--	--	153	319	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	2	2	<1
Bromide	mg/l	--	--	--	--	0.7	1.3	0.9
Carbonate (CO3)	mg/l	--	--	<1	<1	--	--	--
Chemical Oxygen Demand	mg/l	--	--	148	744	11	20	13
Chloride	mg/l	--	250	14	36	41	43	33
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9.7	7.3	--	--	--
Fluoride	mg/l	1.5	--	--	--	0.07	0.08	0.07
Hardness, Calcium Carbonate	mg/l	--	80-100	358	250	310	242	103
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	4.4	1.77	<0.1	0.15	0.13
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	4.4	--	<0.1	0.15	0.13
Phosphate	mg/l	--	--	--	--	0.2	0.18	0.21
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	4.3	1.44	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	27	38	62	30	60
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	228	316	410	370	220
Total Organic Carbon	mg/l	--	--	--	--	7.2	5.8	3.7
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.07	0.17	<0.01
Barium, dissolved	mg/l	1	--	--	--	0.06	0.06	0.03
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	0.18	<0.01	0.08
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	60	57	65	51	20
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	0.02	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	0.28	<0.05	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.75	2.9	5.54	6.84	5.61

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 09-Aug-1991	P6-91 04-Dec-1991	P6-91 30-Apr-1992	P6-91 07-Sep-1992	P6-91 27-Nov-1992
Lead, dissolved	mg/l	0.01	--	**0.14**	**0.23**	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	50	26	36	28	13
Manganese, dissolved	mg/l	--	0.05	<0.05	0.39	0.37	0.42	0.37
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.1	<0.1	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	0.15	<0.05	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	18	4	3	3	2
Silicon, dissolved	mg/l	--	--	--	--	5.8	10.1	7.7
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	26	32	36	33	17
Strontium, dissolved	mg/l	--	--	--	--	0.29	0.33	0.19
Sulfur, dissolved	mg/l	--	--	--	--	15	12	21
Thallium, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.41	0.06	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.002	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	360	567	953	650	290
Temperature (Field)	deg c	--	15	--	--	6	8	8
pH (Field)	-	--	--	6.9	6.22	6.7	6.2	5.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 05-May-1993	P6-91 10-Nov-1993	P6-91 03-Jun-1994	P6-91 09-Sep-1994	P6-91 24-Nov-1994 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	290	98	280	243	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	26	18	28	25	--
Chloride	mg/l	--	250	57	43	82	70	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.8	5.3	9.1	7.9	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	320	127	313	289	--
Nitrate as N	mg/l	10	--	<0.1	<0.1	--	--	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	450	230	450	420	--
Total Organic Carbon	mg/l	--	--	8.9	6.3	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.76	<0.03	--	--	--
Barium, dissolved	mg/l	1	--	0.07	0.04	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Boron, dissolved	mg/l	5	--	0.15	0.12	--	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	--	--	--
Calcium, dissolved	mg/l	--	--	74	28	--	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	--	--	--
Iron, dissolved	mg/l	--	0.3	5.21	4.46	4.88	4.76	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	P6-91 05-May-1993	P6-91 10-Nov-1993	P6-91 03-Jun-1994	P6-91 09-Sep-1994	P6-91 24-Nov-1994 [5]
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	--	--	--
Magnesium, dissolved	mg/l	--	--	33	14	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.36	0.38	0.29	0.27	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Potassium, dissolved	mg/l	--	--	3	2	--	--	--
Silicon, dissolved	mg/l	--	--	2.2	5.2	--	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	31	22	22	24	--
Strontium, dissolved	mg/l	--	--	0.3	0.22	0.38	0.343	--
Sulfur, dissolved	mg/l	--	--	11	12	--	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	--	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	--	--	--
Zinc, dissolved	mg/l	--	5	<0.01	0.01	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	600	330	700	625	--
Temperature (Field)	deg c	--	15	6	6	7.5	12	--
pH (Field)	-	--	--	6.1	6.5	6.3	6.3	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 04-Jun-1995	P6-91 11-Sep-1995	P6-91 07-Nov-1995 (5)	P6-91 17-Jul-1996	P6-91 21-Nov-1996
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	168	230	--	62	271
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	20	38	--	21	52
Chloride	mg/l	--	250	62	88	--	12	119
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.7	10.4	--	6.2	13.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	236	319	--	59	269
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	340	468	--	104	556
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	6.09	5.13	--	1.21	8.15

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 04-Jun-1995	P6-91 11-Sep-1995	P6-91 07-Nov-1995 (5)	P6-91 17-Jul-1996	P6-91 21-Nov-1996
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.34	0.32	--	0.05	0.64
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	26	34	--	15	87
Strontium, dissolved	mg/l	--	--	0.312	0.471	--	0.072	0.562
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	400	700	--	110	570
Temperature (Field)	deg c	--	15	10	12	--	8	6.5
pH (Field)	-	--	--	6.2	6.6	--	8	6.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 10-Jun-1997	P6-91 11-Sep-1997	P6-91 11-Jun-1998	P6-91 19-Aug-1998	P6-91 26-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	311	217	438	398	406
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	47	31	42	59	55
Chloride	mg/l	--	250	109	81	120	138	100
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	17.2	11.3	18	21	22.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	384	284	520	478	428
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	680	448	704	716	588
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	91	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.65	2.99	4.3	4.71	3.56

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 10-Jun-1997	P6-91 11-Sep-1997	P6-91 11-Jun-1998	P6-91 19-Aug-1998	P6-91 26-May-1999
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	38	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.19	0.2	0.32	0.34	0.29
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	42	35	70	74	60
Strontium, dissolved	mg/l	--	--	0.465	0.38	0.515	0.649	0.523
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	620	600	880	1350	880
Temperature (Field)	deg c	--	15	3	12	10	9	4
pH (Field)	-	--	--	7.2	6.5	7.1	6.9	6.72

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 31-Aug-1999	P6-91 31-May-2000	P6-91 18-Aug-2000	P6-91 28-May-2001	P6-91 08-Aug-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	370	425	420	165	384
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	0.08	0.65
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	50	43	50	--	--
Chloride	mg/l	--	250	101	95	82	399	289
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	18.4	19.7	17.9	5.7	14.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	401	432	407	561	575
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.21	0.02	1.23	0.43
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	560	604	660	1080	1100
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.18	0.2	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	0.19	0.32
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	102	92	124	138
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.09	3.22	2.47	7.34	5.43

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 31-Aug-1999	P6-91 31-May-2000	P6-91 18-Aug-2000	P6-91 28-May-2001	P6-91 08-Aug-2001
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	43	43	61	56
Manganese, dissolved	mg/l	--	0.05	0.23	0.28	0.21	0.87	0.52
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	71	72	71	67	91
Strontium, dissolved	mg/l	--	--	0.488	0.516	0.355	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	500	520	996	700	1570
Temperature (Field)	deg c	--	15	8	8	11.2	8.5	15
pH (Field)	-	--	--	6.58	6.78	7	7.1	6.67

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 03-Apr-2002	P6-91 06-Aug-2002	P6-91 13-May-2003	P6-91 26-Aug-2003	P6-91 26-May-2004
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	536	464	463	403	600
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.19	0.09	0.14	0.09
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	<1	2	2.7
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	44	40	67
Chloride	mg/l	--	250	302	767	553	662	293
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	15.1	16.5	15.9	16.3	18.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	671	1250	840	726	577.4
Nitrate as N	mg/l	10	--	--	--	<0.1	<0.1	<0.2
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.2
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	1.14	1.68	1.17
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.26	0.16	0.47	0.59	<0.05
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	0.11	0.07	0.06	0.04
Sulphate	mg/l	--	500 (6)	--	--	164	83	62.9
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	1260	2060	1710	1740	1170
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.01	<0.01	0.012
Barium, dissolved	mg/l	1	--	--	--	0.17	0.13	0.155
Beryllium, dissolved	mg/l	--	--	--	--	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.43	0.34	0.39	0.38	0.347
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.001	<0.001	<0.0001
Calcium, dissolved	mg/l	--	--	140	283	170	154	117
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	<0.01	<0.005
Cobalt, dissolved	mg/l	--	--	--	--	<0.002	<0.002	0.0005
Copper, dissolved	mg/l	--	1	--	--	<0.01	<0.01	<0.0005
Iron, dissolved	mg/l	--	0.3	5.87	6.76	8.66	7.91	8.24

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 03-Apr-2002	P6-91 06-Aug-2002	P6-91 13-May-2003	P6-91 26-Aug-2003	P6-91 26-May-2004
Lead, dissolved	mg/l	0.01	--	--	--	<0.01	<0.01	<0.0005
Magnesium, dissolved	mg/l	--	--	78	131	101	83	68.7
Manganese, dissolved	mg/l	--	0.05	0.88	1.16	1.05	0.836	0.722
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	<0.0001	<0.0001	<0.0002
Molybdenum, dissolved	mg/l	--	--	--	--	<0.005	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	--	--	<0.005	<0.005	0.006
Potassium, dissolved	mg/l	--	--	--	--	5	5	4.5
Silicon, dissolved	mg/l	--	--	--	--	5.1	5.5	5
Silver, dissolved	mg/l	--	--	--	--	<0.001	<0.001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	141	205	255	259	197
Strontium, dissolved	mg/l	--	--	--	--	0.747	0.655	0.754
Sulfur, dissolved	mg/l	--	--	--	--	--	--	27.3
Thallium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	<0.001
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	0.0049
Zinc, dissolved	mg/l	--	5	--	--	<0.005	<0.005	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.001	<0.001	0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1700	1840	1450	1540	1940
Temperature (Field)	deg c	--	15	5	14	7	12	8.2
pH (Field)	-	--	--	6.2	6.7	6.6	6.8	6.78

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 30-Aug-2004	P6-91 26-May-2005	P6-91 25-Aug-2005	P6-91 31-May-2006	P6-91 07-Sep-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	735	1090	1480	2150	2240
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.16	0.19	0.16	0.17
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5.8	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	71	--	--	--	--
Chloride	mg/l	--	250	219	270	378	523	442
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	28	247	768	280	581
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	589.7	1160	1790	1780	2080
Nitrate as N	mg/l	10	--	<0.2	--	--	--	--
Nitrite as N	mg/l	1	--	<0.2	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.5	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.08	0.31	0.21	0.18	0.2
Phosphorus (dissolved reactive)	mg/l	--	--	<0.003	0.09	0.21	0.1	0.12
Sulphate	mg/l	--	500 (6)	42.5	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	1112	1720	2520	3040	3130
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.01	--	--	--	--
Barium, dissolved	mg/l	1	--	0.122	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.001	--	--	--	--
Boron, dissolved	mg/l	5	--	0.524	0.44	0.94	1	1.2
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	--	--	--
Calcium, dissolved	mg/l	--	--	120	267	418	465	561
Chromium, dissolved	mg/l	0.05	--	<0.005	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0006	--	--	--	--
Copper, dissolved	mg/l	--	1	<0.0005	--	--	--	--
Iron, dissolved	mg/l	--	0.3	7.6	15.1	21.3	22.4	24.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 30-Aug-2004	P6-91 26-May-2005	P6-91 25-Aug-2005	P6-91 31-May-2006	P6-91 07-Sep-2006
Lead, dissolved	mg/l	0.01	--	0.0009	--	--	--	--
Magnesium, dissolved	mg/l	--	--	69.9	121	181	151	166
Manganese, dissolved	mg/l	--	0.05	0.654	1.19	2.03	5.9	12.2
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.001	--	--	--	--
Nickel, dissolved	mg/l	--	--	0.008	--	--	--	--
Potassium, dissolved	mg/l	--	--	4.7	--	--	--	--
Silicon, dissolved	mg/l	--	--	6.34	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.0001	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	212	190	322	331	349
Strontium, dissolved	mg/l	--	--	0.693	--	--	--	--
Sulfur, dissolved	mg/l	--	--	29.5	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.00005	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	--	--	--
Vanadium, dissolved	mg/l	--	--	0.006	--	--	--	--
Zinc, dissolved	mg/l	--	5	0.009	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	2650	3100	3950	2710
Temperature (Field)	deg c	--	15	--	8	18.3	13	15
pH (Field)	-	--	--	--	6.8	6.2	7.3	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 29-May-2007	P6-91 28-Aug-2007	P6-91 01-May-2008	P6-91 06-Aug-2008	P6-91 15-Apr-2009 P-6-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	2460	2770	2190	1990	1870
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.75	1.45	1.93	1.3
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	498	497	472	401	360
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	636	128	142	124	125
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	2170	2060	1900	1370	1700
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.6	0.3	0.51	0.58	1.7
Phosphorus (dissolved reactive)	mg/l	--	--	0.06	0.13	<0.01	0.02	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	3340	3220	3070	2780	2500
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	2.73	2.5	**5.2**	4.3	4.33
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	618	571	500	369	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	42.9	45.8	40.8	28.4	29.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 29-May-2007	P6-91 28-Aug-2007	P6-91 01-May-2008	P6-91 06-Aug-2008	P6-91 15-Apr-2009 P-6-91
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	153	153	159	108	--
Manganese, dissolved	mg/l	--	0.05	14.4	13.6	9.6	7.08	7.10
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	276	327	420	431	365
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3450	3000	3200	3700	3500
Temperature (Field)	deg c	--	15	10.4	12.9	7	16	6
pH (Field)	-	--	--	7.3	7.4	6.8	6.9	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 14-Aug-2009 (36) 6-91	P6-91 31-May-2010 (37) M-4	P6-91 12-Aug-2010 (29) C-9	P6-91 29-Apr-2011 (29) V-1	P6-91 23-Aug-2011 (29) P6-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1850	1720	1810	1510	1280
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	<0.02
Ammonia Nitrogen	mg/l	--	--	1.3	1.8	1.2	3.1	11
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	310	340	250	260	170
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	106	123	109	88.5	71.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1300	1500	1500	1300	1000
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.2 (14)	1.7	0.41	1.2	1.0
Phosphorus (dissolved reactive)	mg/l	--	--	<0.1 (22)	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	2430	2400	2400	1860	1930
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	**6.64**	4.25	**11.3**	3.26	**7.84**
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	23.4	22.0	22.1	12.7	15.0

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 14-Aug-2009 (36) 6-91	P6-91 31-May-2010 (37) M-4	P6-91 12-Aug-2010 (29) C-9	P6-91 29-Apr-2011 (29) V-1	P6-91 23-Aug-2011 (29) P6-91
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	7.27	9.77	10.2	9.23	9.43
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	395	387	376	239	234
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	3224	3744	3219	2955	2267
Temperature (Field)	deg c	--	15	18.6	10.9	15.7	7.3	14.6
pH (Field)	-	--	--	6.52	6.60	6.69	6.72	6.67

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 04-Jun-2012 (27) 6-91	P6-91 29-Aug-2012 (28) 6-91	P6-91 23-Apr-2013 RV-1	P6-91 06-Sep-2013 (39) P6-91	P6-91 12-May-2014 P6-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1000	1600	1500	2000	1900
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	21	56	29	16	61
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	190	200	290	390	430
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	78	110	100	360	120
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	790	1200	1500	1800	1300
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--					
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	<0.010	<0.010
Phosphorus	mg/l	--	--	0.85	0.62	0.89	0.63	0.88
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	<0.010	<0.010	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)			--	--	--
Total Dissolved Solids	mg/l	--	500	1610	2150	2270	3730	2530
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	3.9	**10.0**	3.88	3.9	4.2
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	9.8	10.3	9.56	6.2	6.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 04-Jun-2012 (27) 6-91	P6-91 29-Aug-2012 (28) 6-91	P6-91 23-Apr-2013 RV-1	P6-91 06-Sep-2013 (39) P6-91	P6-91 12-May-2014 P6-91
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	6.2	8.4	12.8	13.7	8.5
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	220	268	257	306	300
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	2164	3342	3054	3983	3853
Temperature (Field)	deg c	--	15	9.9	14.9	8.4	13.8	11.2
pH (Field)	-	--	--	6.83	6.80	6.84	6.83	6.83

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 27-Aug-2014 (31) P6-91	P6-91 20-May-2015 (40) P-6	P6-91 19-Aug-2015 (41) P6-91	P6-91 17-June-2016 P6-91	P6-91 22-Aug-2016 P6-91
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1700	1700	2100	2170	2120
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	52	52	86	74.3	177
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	360	--	--	502	495
Chloride, dissolved	mg/l	--	250	--	390	440	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	100	120	210	106	164
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1300	1300	1600	1560	1240
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--				--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	0.02	0.05
Phosphorus	mg/l	--	--	0.74	0.42	0.41	0.45	0.27
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2540	2700	3000	3396	3953
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	2.5	4.0	3.4	3.34	8.67
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	0.0039	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	4.4	3.6	5.2	5.06	6.04

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 27-Aug-2014 (31) P6-91	P6-91 20-May-2015 (40) P-6	P6-91 19-Aug-2015 (41) P6-91	P6-91 17-June-2016 P6-91	P6-91 22-Aug-2016 P6-91
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	9.5	8.9	13	13.5	6.31
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	300	330	330	383	472
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	>4000	3694	3504	4060	5480
Temperature (Field)	deg c	--	15	14.1	10.9	13.2	10.4	14.1
pH (Field)	-	--	--	6.69	6.81	6.7	7	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 02-May-2017 P6-91	P6-91 21-Sep-2017 P6-91	P6-91 01-May-2018 P6-91	P6-91 21-Aug-2018 P6-91
General Chemistry							
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1970	2080	2010	2310
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	75	100	88.8	133
Bicarbonate	mg/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	12	23	12	16
Bromide	mg/l	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	368	430	384	490
Chloride	mg/l	--	250	385	351	526	492
Chloride, dissolved	mg/l	--	250	--	--	--	--
Conductivity	µmho/c	--	--	--	4200	3970	4600
Dissolved Organic Carbon	mg/l	--	5	99.3	106	121	19.7
Fluoride	mg/l	1.5	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	1490	1570	1480	1340
Nitrate as N	mg/l	10	--	< 0.5		< 0.5	< 0.5
Nitrite as N	mg/l	1	--	< 0.5	< 0.05	< 0.5	< 0.5
Nitrogen, Total Kjeldahl	mg/l	--	--	77.9	101	117	183
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.01	0.03	0.02	< 0.01
Phosphorus	mg/l	--	--	0.22	0.16	0.31	0.29
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	< 10	4	< 10	< 10
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--
Total Dissolved Solids	mg/l	--	500	2640	2613	2787	3124
Total Organic Carbon	mg/l	--	--	--	--	--	--
Metals							
Aluminum, total	mg/l	0.1	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.11	0.17	0.15	0.15
Barium, dissolved	mg/l	1	--	0.776	1.01	0.844	0.939
Beryllium, dissolved	mg/l	--	--	0.0002	< 0.0001	< 0.0001	0.0002
Boron, dissolved	mg/l	5	--	2.92	4.32	2.69	5.23
Cadmium, dissolved	mg/l	0.005	--	0.000071	< 0.000014	< 0.000015	< 0.000059
Calcium, dissolved	mg/l	--	--	403	426	404	363
Chromium, dissolved	mg/l	0.05	--	0.014	0.016	0.003	0.016
Cobalt, dissolved	mg/l	--	--	0.0036	0.007	0.0015	0.0079
Copper, dissolved	mg/l	--	1	< 0.002	< 0.002	0.0002	< 0.0003
Iron, dissolved	mg/l	--	0.3	7.95	9.62	7.36	6.52

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P6-91 02-May-2017 P6-91	P6-91 21-Sep-2017 P6-91	P6-91 01-May-2018 P6-91	P6-91 21-Aug-2018 P6-91
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.00002	< 0.00002	< 0.0002
Magnesium, dissolved	mg/l	--	--	117	122	114	106
Manganese, dissolved	mg/l	--	0.05	12.7	13.8	12.5	10.9
Mercury	mg/l	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	0.0003	0.0003	< 0.0001	0.0005
Nickel, dissolved	mg/l	--	--	0.02	0.01	0.01	0.02
Potassium, dissolved	mg/l	--	--	64.6	95.1	77.5	105
Silicon, dissolved	mg/l	--	--	12.8	14	12.9	11.5
Silver, dissolved	mg/l	--	--	0.00005	0.00004	< 0.0001	< 0.0002
Sodium, dissolved	mg/l	--	200 (7)	364	438	441	484
Strontium, dissolved	mg/l	--	--	2.11	2.47	2.33	2.21
Sulfur, dissolved	mg/l	--	--	10.5	6.1	8	9.9
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	< 0.005	0.008	0.012	0.012
Vanadium, dissolved	mg/l	--	--	0.0388	0.0362	0.0094	0.0402
Zinc, dissolved	mg/l	--	5	< 0.005	0.008	0.009	0.005
Phenols							
Phenolics, Total Recoverable	mg/l	--	--	0.01	0.003	0.005	0.027
Field Measurements							
Conductivity (Field)	uS/cm	--	--	4060	3970	Metre	2570
Temperature (Field)	deg c	--	15	7	13.8	Malfunctioned	14.3
pH (Field)	-	--	--	6.8	7.0		6.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 01-May-1992	G8C-92 08-Sep-1992	G8C-92 27-Nov-1992	G8C-92 05-May-1993	G8C-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	45	66	68	70	99
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.21	<0.1	<0.1	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	2	2	--	--
Bromide	mg/l	--	--	<0.5	1.5	<0.5	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	<3	8	8	5
Chloride	mg/l	--	250	<1	1	5	63	113
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	2	2.2
Fluoride	mg/l	1.5	--	0.16	0.21	0.19	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	31	50	58	212	384
Nitrate as N	mg/l	10	--	0.45	0.85	0.96	3.16	1.7
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.47	<0.1	<0.1	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	0.26	<0.1	<0.1	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	0.33	1.4	0.93	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	8	11	13	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	70	80	100	290	510
Total Organic Carbon	mg/l	--	--	1.1	0.9	1.2	2.4	2.6
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.13	0.49	0.41	0.74	<0.03
Barium, dissolved	mg/l	1	--	<0.01	<0.01	0.01	0.03	0.07
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.03	<0.01	0.04	<0.01	0.05
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	6	15	15	52	101
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	0.02	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.14	0.83	0.55	0.17	0.06

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 01-May-1992	G8C-92 08-Sep-1992	G8C-92 27-Nov-1992	G8C-92 05-May-1993	G8C-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	4	3	5	20	32
Manganese, dissolved	mg/l	--	0.05	0.02	0.04	0.04	<0.01	0.13
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	1	10	4	3	4
Silicon, dissolved	mg/l	--	--	4.4	7.7	6.3	2.1	5.6
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	11	9	13	9	10
Strontium, dissolved	mg/l	--	--	<0.01	0.04	0.1	0.38	0.74
Sulfur, dissolved	mg/l	--	--	5	9	4	31	44
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	109	120	160	440	900
Temperature (Field)	deg c	--	15	6	9	8	6	8.5
pH (Field)	-	--	--	7.8	7.7	7.6	6	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 03-Jun-1994	G8C-92 09-Sep-1994	G8C-92 24-Nov-1994	G8C-92 04-Jun-1995	G8C-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	68	101	178	120	116
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.12	0.02	--	0.06	0.11
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	<1	--	<1	3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	3	8	5	5	11
Chloride	mg/l	--	250	6	4	6	9	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.3	1.4	2	3	2.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	75	71	161	108	105
Nitrate as N	mg/l	10	--	0.67	0.36	--	0.22	0.21
Nitrite as N	mg/l	1	--	<0.1	<0.1	--	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.3	0.21	--	0.89	0.23
Nitrogen, Nitrate-Nitrite	mg/l	--	--	0.18	0.19	--	0.83	0.12
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.09	2.77	--	2.32	3.26
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	29	21	--	23	26
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	130	160	248	188	180
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.07	0.11	--	0.2	0.73
Barium, dissolved	mg/l	1	--	0.01	<0.01	--	0.02	0.02
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.05	0.04	--	0.06	0.08
Cadmium, dissolved	mg/l	0.005	--	<0.00015	<0.00015	--	<0.00015	<0.00015
Calcium, dissolved	mg/l	--	--	20	20	--	30	29
Chromium, dissolved	mg/l	0.05	--	<0.01	0.01	--	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.0004	<0.0004	--	0.0005	0.0036
Copper, dissolved	mg/l	--	1	<0.005	<0.005	--	0.014	<0.005
Iron, dissolved	mg/l	--	0.3	0.12	0.17	0.19	0.02	0.95

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 03-Jun-1994	G8C-92 09-Sep-1994	G8C-92 24-Nov-1994	G8C-92 04-Jun-1995	G8C-92 11-Sep-1995
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	--	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	6	5	--	8	8
Manganese, dissolved	mg/l	--	0.05	0.04	0.05	0.13	0.1	0.13
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0002	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	1	1	--	3	3
Silicon, dissolved	mg/l	--	--	3.7	4.6	--	5.1	7.7
Silver, dissolved	mg/l	--	--	<0.0001	0.0002	--	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	5	5	11	14	11
Strontium, dissolved	mg/l	--	--	0.12	0.11	0.23	0.166	0.153
Sulfur, dissolved	mg/l	--	--	11	9	--	8	10
Thallium, dissolved	mg/l	--	--	<0.005	<0.005	--	<0.005	<0.005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	0.01	--	<0.01	0.04
Vanadium, dissolved	mg/l	--	--	<0.007	<0.007	--	<0.007	<0.007
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	--	<0.01	0.06
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	--	0.003	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	170	230	375	200	250
Temperature (Field)	deg c	--	15	9.5	12	9	10	13
pH (Field)	-	--	--	6.2	7.3	7	6	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 07-Nov-1995	G8C-92 16-Jul-1996	G8C-92 21-Nov-1996	G8C-92 10-Jun-1997	G8C-92 10-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	115	126	194	99	100
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.06	0.18	0.14	0.09
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	<1	1	1	4
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	13	8	18	17	5
Chloride	mg/l	--	250	2	8	4	4	5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.9	3.4	5.3	3.1	2.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	110	135	206	104	110
Nitrate as N	mg/l	10	--	--	<0.1	<0.1	0.31	<0.1
Nitrite as N	mg/l	1	--	--	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	0.23	0.35	0.26	0.13
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	0.17	0.17	0.12	0.04
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	3.4	7.78	4.29	1.07
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	21	27	24	11
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	188	168	248	156	340
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.33	0.37	0.11	4
Barium, dissolved	mg/l	1	--	--	0.02	0.03	0.01	0.04
Beryllium, dissolved	mg/l	--	--	--	<0.01	0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	0.08	0.08	0.03	0.03
Cadmium, dissolved	mg/l	0.005	--	--	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	--	31	56	27	29
Chromium, dissolved	mg/l	0.05	--	--	**0.25**	**0.11**	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	--	<0.005	<0.005	0.015	<0.005
Iron, dissolved	mg/l	--	0.3	1.43	0.32	0.31	0.05	2.45

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 07-Nov-1995	G8C-92 16-Jul-1996	G8C-92 21-Nov-1996	G8C-92 10-Jun-1997	G8C-92 10-Sep-1997
Lead, dissolved	mg/l	0.01	--	--	<0.002	<0.002	<0.002	0.003
Magnesium, dissolved	mg/l	--	--	--	14	16	9	9
Manganese, dissolved	mg/l	--	0.05	0.17	0.12	0.17	0.01	0.11
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	0.0006	<0.0002	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	--	<0.01	<0.03	<0.03	<0.03
Nickel, dissolved	mg/l	--	--	--	<0.01	<0.01	<0.01	0.01
Potassium, dissolved	mg/l	--	--	--	5	3	2	2
Silicon, dissolved	mg/l	--	--	--	3.5	3.5	2.7	4.3
Silver, dissolved	mg/l	--	--	--	<0.01	<0.001	<0.004	<0.01
Sodium, dissolved	mg/l	--	200 (7)	14	15	14	6	5
Strontium, dissolved	mg/l	--	--	0.168	0.247	0.301	0.174	0.161
Sulfur, dissolved	mg/l	--	--	--	7	<3	8	4
Thallium, dissolved	mg/l	--	--	--	<0.2	<0.2	<0.2	<0.2
Tin, dissolved	mg/l	--	--	--	--	<0.05	--	<0.05
Titanium, dissolved	mg/l	--	--	--	0.02	<0.01	<0.01	0.01
Vanadium, dissolved	mg/l	--	--	--	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	--	<0.01	<0.01	0.04	0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.002	<0.002	<0.002	<0.002
Field Measurements								
Conductivity (Field)	uS/cm	--	--	280	260	220	160	190
Temperature (Field)	deg c	--	15	13	10	8.5	6	16
pH (Field)	-	--	--	7.4	7.1	6.9	6.6	7.2

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G8C-92 11-Jun-1998	G8C-92 20-Aug-1998	G8C-92 25-May-1999	G8C-92 30-Aug-1999	G8C-92 30-May-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	136	130	118	163	107
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.21	0.03	0.07	0.05	0.3
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	3	5	2	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	12	<3	5	13	15
Chloride	mg/l	--	250	3	3	3	3	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.8	1.9	2.1	2.4	4.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	150	130	117	192	134
Nitrate as N	mg/l	10	--	0.14	<0.1	0.26	0.15	0.34
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.29	0.17	0.19	0.18	0.44
Nitrogen, Nitrate-Nitrite	mg/l	--	--	0.08	0.14	0.12	0.13	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	5.97	0.45	2.47	0.95	8.39
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	14	14	16	25	17
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	180	160	144	220	188
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	1.58	0.81	<0.03	0.53	1.05
Barium, dissolved	mg/l	1	--	0.01	0.02	<0.01	0.03	0.02
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.002
Boron, dissolved	mg/l	5	--	0.02	0.03	0.03	0.04	0.03
Cadmium, dissolved	mg/l	0.005	--	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	42	34	32	52	34
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.005	<0.005	<0.005	<0.005	<0.01
Iron, dissolved	mg/l	--	0.3	1.55	0.82	<0.01	0.34	0.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 11-Jun-1998	G8C-92 20-Aug-1998	G8C-92 25-May-1999	G8C-92 30-Aug-1999	G8C-92 30-May-2000
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.05	<0.001
Magnesium, dissolved	mg/l	--	--	11	11	9	15	12
Manganese, dissolved	mg/l	--	0.05	0.07	0.12	<0.01	0.12	0.02
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.03	<0.03	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	3	2	2	2	4
Silicon, dissolved	mg/l	--	--	3.5	3.6	2	4	2.85
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	7	7	5	9	6
Strontium, dissolved	mg/l	--	--	0.178	0.198	0.103	0.285	0.139
Sulfur, dissolved	mg/l	--	--	6	6	5	9	6
Thallium, dissolved	mg/l	--	--	<0.2	<0.2	<0.2	<0.5	<0.2
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	0.04
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	230	260	170	260	190
Temperature (Field)	deg c	--	15	10.5	13	5	10	7
pH (Field)	-	--	--	7	7.3	7.13	6.84	8.1

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G8C-92 17-Aug-2000	G8C-92 28-May-2001	G8C-92 08-Aug-2001	G8C-92 04-Apr-2002	G8C-92 07-Aug-2002
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	119	211	165	151	181
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.26	0.09	0.2	0.15	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	8	--	--	--	--
Chloride	mg/l	--	250	6	7	4	3	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2	3	2.5	2.8	2.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	232	137	147	190
Nitrate as N	mg/l	10	--	<0.1	--	--	--	--
Nitrite as N	mg/l	1	--	<0.1	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.16	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.16	0.88	3.62	4.95	8.41
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	<0.01	<0.01	0.01
Sulphate	mg/l	--	500 [6]	23	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	180	348	188	214	256
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	3.02	--	--	--	--
Barium, dissolved	mg/l	1	--	0.05	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.002	--	--	--	--
Boron, dissolved	mg/l	5	--	0.03	0.04	0.04	<0.05	<0.02
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	--	--	--
Calcium, dissolved	mg/l	--	--	34	60	35	39	53
Chromium, dissolved	mg/l	0.05	--	<0.01	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0034	--	--	--	--
Copper, dissolved	mg/l	--	1	0.008	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.38	0.02	0.01	<0.01	1.43

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 17-Aug-2000	G8C-92 28-May-2001	G8C-92 08-Aug-2001	G8C-92 04-Apr-2002	G8C-92 07-Aug-2002
Lead, dissolved	mg/l	0.01	--	0.003	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	20	12	12	14
Manganese, dissolved	mg/l	--	0.05	0.16	0.04	0.08	0.01	0.123
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	--	--	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	--	--	--
Potassium, dissolved	mg/l	--	--	2	--	--	--	--
Silicon, dissolved	mg/l	--	--	4.92	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.0001	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	5	7	11	7	7
Strontium, dissolved	mg/l	--	--	0.189	--	--	--	--
Sulfur, dissolved	mg/l	--	--	7	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.001	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	0.03	--	--	--	--
Vanadium, dissolved	mg/l	--	--	0.007	--	--	--	--
Zinc, dissolved	mg/l	--	5	0.01	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	245	300	440	540	580
Temperature (Field)	deg c	--	15	13.9	9.5	10	6	15
pH (Field)	-	--	--	6.6	6.8	6.1	7	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 14-May-2003	G8C-92 27-Aug-2003	G8C-92 26-May-2004	G8C-92 29-Aug-2004	G8C-92 27-May-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	117	148	92	103	117
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.16	0.12	0.22	0.09	0.09
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	5	3	22.1	6	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.1	2.6	3	1.9	2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	122	158	105.5	96.5	109
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	7.93	4.8	<0.1	<0.1	1.69
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	<0.01	0.007	0.005	0.07
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	163	216	164	114	171
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	<0.05	0.01	0.02	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	34	42	--	--	27
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.02	<0.01	<0.01	0.01	0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 14-May-2003	G8C-92 27-Aug-2003	G8C-92 26-May-2004	G8C-92 29-Aug-2004	G8C-92 27-May-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	9	13	--	--	10
Manganese, dissolved	mg/l	--	0.05	0.006	0.027	<0.005	0.033	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	6	8	3.5	4.6	5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	130	190	192	--	263
Temperature (Field)	deg c	--	15	6	13	7.3	--	9
pH (Field)	-	--	--	7.1	7.3	7.41	--	7.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 25-Aug-2005	G8C-92 31-May-2006	G8C-92 07-Sep-2006	G8C-92 29-May-2007	G8C-92 28-Aug-2007
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	139	137	145	141	210
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.12	0.09	0.08	0.13	0.09
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	8	10	7	10	8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	2.6	3	5.2	5.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	140	147	135	109	202
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.5	4.5	3.91	7.64	9.18
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.01	0.02	0.04	0.02
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	190	209	202	196	285
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	0.01	0.03	0.03	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	38	39	36	29	56
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.03	0.24	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 25-Aug-2005	G8C-92 31-May-2006	G8C-92 07-Sep-2006	G8C-92 29-May-2007	G8C-92 28-Aug-2007
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	12	11	9	15
Manganese, dissolved	mg/l	--	0.05	0.06	<0.01	<0.01	<0.01	0.15
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7	7	8	4	9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	220	300	280	375	425
Temperature (Field)	deg c	--	15	15.7	12	14	10	13.3
pH (Field)	-	--	--	7.1	7.1	7	8.4	8.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 02-May-2008	G8C-92 07-Aug-2008	G8C-92 13-Apr-2009 G-8-92	G8C-92 13-Aug-2009 8-92	G8C-92 01-Jun-2010 C-3
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	152	148	131	160	199
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.14	0.14	0.32	0.18	0.07
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2	8	1	2	8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4	3.8	1.9	2.1	2.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	159	110	160	220
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	6.05	4.98	7.6	3.1 (14)	1.2 (14)
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	194	233	165	245	294
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	0.03	<0.02	0.02	0.03
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	34	44	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.02	<0.02	0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 02-May-2008	G8C-92 07-Aug-2008	G8C-92 13-Apr-2009 G-8-92	G8C-92 13-Aug-2009 8-92	G8C-92 01-Jun-2010 C-3
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	12	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	15	7	11.8	7.2	6.7
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	205	280	210	348	442
Temperature (Field)	deg c	--	15	6.5	17	4	14.6	10.5
pH (Field)	-	--	--	7.1	7.1	7.4	6.8	6.73

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 11-Aug-2010 C-1	G8C-92 29-Apr-2011 R-14	G8C-92 23-Aug-2011 G8C-92	G8C-92 04-Jun-2012 8C-92	G8C-92 29-Aug-2012 8C-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	218	74	135	190	180
Ammonia, unionized (Field)	mg/l	--	--	--	--	<0.02	--	--
Ammonia Nitrogen	mg/l	--	--	0.11	0.39	0.11	0.081	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	8	11	10	4	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.4	2.5	1.7	3.1	2.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	250	79	120	230	170
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	2.0 (14)	11	3.2	<0.10 (26)	0.64
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.03	0.02	<0.010	<0.010
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	300	108	220	270	170
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.05	<0.02	0.02	0.05	0.03
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.03	<0.02	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 11-Aug-2010 C-1	G8C-92 29-Apr-2011 R-14	G8C-92 23-Aug-2011 G8C-92	G8C-92 04-Jun-2012 8C-92	G8C-92 29-Aug-2012 8C-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7.9	3.9	6.4	8.1	7.0
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	431	151	249	361	365
Temperature (Field)	deg c	--	15	16.4	5.3	16.4	10.1	15.8
pH (Field)	-	--	--	6.01	8.24	6.65	6.75	6.67

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 23-Apr-2013 R-4	G8C-92 06-Sep-2013 8-92C	G8C-92 12-May-2014 8C-92	G8C-92 26-Aug-2014 8C-92	G8C-92 20-May-2015 8C
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	220	160	200	160	190
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.22	0.14	0.38	0.25	0.25
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	4	5	3	3	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	3
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.5	1.9	3.2	2.4	3.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	240	160	170	160	200
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	<0.010	<0.010	<0.010	<0.010
Phosphorus	mg/l	--	--	4.7	2.4	8.6	5.1	2.6
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	196	224	230	180	238
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.03	<0.02	<0.02	0.03	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	<0.00050	<0.02	<0.00050
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 23-Apr-2013 R-4	G8C-92 06-Sep-2013 8-92C	G8C-92 12-May-2014 8C-92	G8C-92 26-Aug-2014 8C-92	G8C-92 20-May-2015 8C
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.01	<0.01	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7.9	9.2	6.6	7.6	6.1
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	426	324	383	334	384
Temperature (Field)	deg c	--	15	5.7	13.8	9.7	15.7	9.9
pH (Field)	-	--	--	7.09	6.59	7.44	7.96	7.43

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 18-Aug-2015 8C-92	G8C-92 16-June-2016 8C-92	G8C-92 22-Aug-2016 8C-92	G8C-92 2-May-2017 8C-92	G8C-92 21-Sep-2017 8C-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	190	319	185	293	204
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.15	0.36	< 0.01	0.29	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	12.4	2.9	11.7	4.4
Chloride, dissolved	mg/l	--	250	3.5		--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.3	8.5	2	6	3.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	190	50	182	56	246
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	0.35	0.03	0.31	0.01
Phosphorus	mg/l	--	--	2.5	1.6	0.95	0.86	0.66
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	220	415	242	340	227
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.03	0.251	0.026	0.259	0.022
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.00050	< 0.0001	< 0.0001	< 0.005	< 0.005
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	0.167	< 0.005	0.22	< 0.005

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 18-Aug-2015 8C-92	G8C-92 16-June-2016 8C-92	G8C-92 22-Aug-2016 8C-92	G8C-92 2-May-2017 8C-92	G8C-92 21-Sep-2017 8C-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.016	< 0.001	0.016	0.001
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	8.0	130	5.9	117	5.8
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	409	598	383	589	363
Temperature (Field)	deg c	--	15	12.3	9.2	12	7.8	13.0
pH (Field)	-	--	--	7.5	7.9	6.7	7.5	7.0

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 01-May-2018 8C-92	G8C-92 21-Aug-2018 8C-92			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	208	249			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	7.5	4.6			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	3.1	3.2			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	272	279			
Nitrate as N	mg/l	10	--	--	--			
Nitrite as N	mg/l	1	--	--	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--			
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01			
Phosphorus	mg/l	--	--	2.18	0.5			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	--	--			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	270	280			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	0.029	0.03			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	< 0.0001	0.0002			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	< 0.005	< 0.005			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8C-92 01-May-2018 8C-92	G8C-92 21-Aug-2018 8C-92			
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	0.001	0.001			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	6.1	5.9			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur, dissolved	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	330	407			
Temperature (Field)	deg c	--	15	4.8	12.3			
pH (Field)	-	--	--	7.2	6.9			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 01-May-1992	G12-92 07-Sep-1992	G12-92 28-Nov-1992	G12-92 05-May-1993 (5)	G12-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	251	322	288	--	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	1	<1	--	--
Bromide	mg/l	--	--	<0.5	1.5	1.3	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	19	<3	5	--	--
Chloride	mg/l	--	250	5	7	5	--	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	0.14	0.12	0.1	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	152	353	270	--	--
Nitrate as N	mg/l	10	--	1.6	<0.1	<0.1	--	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.34	0.11	0.13	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.34	0.11	0.13	--	--
Phosphate	mg/l	--	--	0.15	0.21	0.24	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	60	50	37	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	340	400	330	--	--
Total Organic Carbon	mg/l	--	--	3	2.6	2	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.21	1.22	<0.01	--	--
Barium, dissolved	mg/l	1	--	0.05	0.08	0.08	--	--
Beryllium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.05	<0.01	0.02	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	36	74	62	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	0.03	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.01	0.03	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	0.12	0.98	<0.01	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 01-May-1992	G12-92 07-Sep-1992	G12-92 28-Nov-1992	G12-92 05-May-1993 (5)	G12-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	15	41	28	--	--
Manganese, dissolved	mg/l	--	0.05	0.05	0.54	0.02	--	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	4	6	4	--	--
Silicon, dissolved	mg/l	--	--	4.9	11.2	5.7	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	70	31	29	--	--
Strontium, dissolved	mg/l	--	--	0.22	0.38	0.31	--	--
Sulfur, dissolved	mg/l	--	--	16	19	17	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	0.02	<0.1	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	741	750	550	--	--
pH (Field)	-	--	--	7.2	7	6.9	--	--
Temperature (Field)	deg c	--	15	8	7	8	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 03-Jun-1994 (5)	G12-92 09-Sep-1994 (5)	G12-92 24-Nov-1994 (5)	G12-92 04-Jun-1995 (5)	G12-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	--	--	--	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 03-Jun-1994 (5)	G12-92 09-Sep-1994 (5)	G12-92 24-Nov-1994 (5)	G12-92 04-Jun-1995 (5)	G12-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 07-Nov-1995 (5)	G12-92 16-Jul-1996	G12-92 21-Nov-1996	G12-92 10-Jun-1997	G12-92 11-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	318	331	321	311
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	21	13	10	11
Chloride	mg/l	--	250	--	11	9	11	9
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	5.1	5.3	3.3	2.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	256	341	308	318
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	404	412	412	432
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	69	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	0.26	0.84	0.33	0.22

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 07-Nov-1995 (5)	G12-92 16-Jul-1996	G12-92 21-Nov-1996	G12-92 10-Jun-1997	G12-92 11-Sep-1997
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	33	--
Manganese, dissolved	mg/l	--	0.05	--	0.52	0.16	0.03	0.19
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	37	32	19	29
Strontium, dissolved	mg/l	--	--	--	0.327	0.298	0.271	0.297
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	770	470	450	590
pH (Field)	-	--	--	--	7.2	5.4	7	6.4
Temperature (Field)	deg c	--	15	--	8	3	6	14.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 11-Jun-1998	G12-92 19-Aug-1998	G12-92 26-May-1999	G12-92 31-Aug-1999	G12-92 31-May-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	335	353	307	324	317
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	11	<3	8	5
Chloride	mg/l	--	250	12	12	14	14	11
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.4	3.1	2.3	2.2	2.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	351	275	314	355	317
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	2.18
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	424	404	360	420	376
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	0.09
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	74
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.54	<0.01	0.02	0.03	0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 11-Jun-1998	G12-92 19-Aug-1998	G12-92 26-May-1999	G12-92 31-Aug-1999	G12-92 31-May-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	32
Manganese, dissolved	mg/l	--	0.05	0.11	0.04	0.02	0.11	0.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	29	29	21	33	29
Strontium, dissolved	mg/l	--	--	0.28	0.272	0.284	0.277	0.258
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	580	680	490	-- (11)	300
pH (Field)	-	--	--	7.3	7.9	6.87	-- (11)	6.92
Temperature (Field)	deg c	--	15	12.5	14	4	-- (11)	9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 17-Aug-2000	G12-92 27-May-2001	G12-92 08-Aug-2001 (9)	G12-92 03-Apr-2002	G12-92 06-Aug-2002
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	281	327	--	282	323
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.14	--	0.1	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<4	--	--	--	--
Chloride	mg/l	--	250	15	20	--	10	12
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	2	--	2.1	2.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	243	300	--	209	311
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.05	2.23	--	0.79	0.51
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	0.01	0.04
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	348	384	--	382	434
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.07	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.03	--	<0.05	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	56	69	--	49	70
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.11	0.04	--	<0.01	0.02

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G12-92 17-Aug-2000	G12-92 27-May-2001	G12-92 08-Aug-2001 [9]	G12-92 03-Apr-2002	G12-92 06-Aug-2002
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	25	31	--	21	33
Manganese, dissolved	mg/l	--	0.05	<0.01	0.09	--	0.06	0.108
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	22	24	--	28	27
Strontium, dissolved	mg/l	--	--	0.18	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	560	350	--	600	540
pH (Field)	-	--	--	6.5	7.4	--	7.1	7.6
Temperature (Field)	deg c	--	15	12.1	10	--	5	14

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 13-May-2003	G12-92 26-Aug-2003	G12-92 26-May-2004	G12-92 30-Aug-2004	G12-92 27-May-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	239	238	284	286	283
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.04	0.06	0.03	0.07	0.22
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	15	11	15.5	13.3	16
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.2	3.7	2.7	4.3	3.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	222	229	302	353.8	289
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.07	0.92	<0.1	<0.1	0.03
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	0.03	0.004	0.002	0.03
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	341	326	330	296	402
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	<0.05	0.03	0.05	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	51	57	--	--	68
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.02	0.02	0.03	0.05	0.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 13-May-2003	G12-92 26-Aug-2003	G12-92 26-May-2004	G12-92 30-Aug-2004	G12-92 27-May-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	23	21	--	--	29
Manganese, dissolved	mg/l	--	0.05	0.033	0.081	0.038	0.462	0.64
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	27	29	24.3	27.5	31
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	290	320	430	340	618
pH (Field)	-	--	--	7.3	7.4	7.79	7.2	7.3
Temperature (Field)	deg c	--	15	6	13	6.4	15	9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 26-Aug-2005	G12-92 01-Jun-2006	G12-92 07-Sep-2006	G12-92 31-May-2007	G12-92 28-Aug-2007
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	311	313	247	250	262
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.04	0.06	0.15	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	16	15	11	21	14
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	2.6	9.5	2.4	3.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	293	294	211	249	242
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.97	0.44	0.4	0.83	0.62
Phosphorus (dissolved reactive)	mg/l	--	--	0.08	0.04	0.05	0.04	0.02
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	434	421	340	362	372
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.06	0.04	0.04	0.03	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	68	70	50	57	59
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.03	0.06	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 26-Aug-2005	G12-92 01-Jun-2006	G12-92 07-Sep-2006	G12-92 31-May-2007	G12-92 28-Aug-2007
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	30	29	21	26	23
Manganese, dissolved	mg/l	--	0.05	0.17	0.05	0.03	0.02	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	25	23	25	25	24
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	710	490	710	370	400
pH (Field)	-	--	--	7.2	7.5	7.1	8	8.1
Temperature (Field)	deg c	--	15	16.9	12	15	11.1	15.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 02-May-2008	G12-92 08-Aug-2008	G12-92 14-Apr-2009 G-12-92	G12-92 14-Aug-2009 12-92	G12-92 31-May-2010 M-5
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	181	247	218	252	268
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.02	<0.05	<0.05	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	11	10	8	9	11
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	4.3	3.4	2.0	2.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	149	225	160	200	240
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.22	0.14	1.1	0.74 (14)	0.6
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	261	333	295	335	360
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	0.04	<0.02	0.03	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	35	52	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	<0.02	<0.02	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 02-May-2008	G12-92 08-Aug-2008	G12-92 14-Apr-2009 G-12-92	G12-92 14-Aug-2009 12-92	G12-92 31-May-2010 M-5
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	15	23	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	0.02	0.03
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	21	22	33.3	26.5	24.6
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	265	513	465	435	509
pH (Field)	-	--	--	7	7.7	7.6	7.07	7.10
Temperature (Field)	deg c	--	15	8.5	15	4	16.3	15.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 12-Aug-2010 C-17	G12-92 28-Apr-2011 R-1	G12-92 22-Aug-2011 (12) G12-92	G12-92 04-Jun-2012 12-92	G12-92 29-Aug-2012 (12) G12-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	256	209	--	1500	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	--	<0.050	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	12	13	--	21	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.3	4.1	--	2.6	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210	140	--	200	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.7	0.91	--	0.37	--
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	<0.01	--	<0.010	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	330	294	--	258	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	<0.02	--	0.02	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.16	0.03	--	0.27	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 12-Aug-2010 C-17	G12-92 28-Apr-2011 R-1	G12-92 22-Aug-2011 (12) G12-92	G12-92 04-Jun-2012 12-92	G12-92 29-Aug-2012 (12) G12-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.05	--	0.02	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	25.7	45.3	--	25.5	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	499	460	--	456	--
pH (Field)	-	--	--	6.76	7.37	--	7.29	--
Temperature (Field)	deg c	--	15	16.2	6.6	--	13.3	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 23-Apr-2013 R-14	G12-92 06-Sep-2013 12-92	G12-92 12-May-2014 12-92	G12-92 26-Aug-2014 12-92	G12-92 20-May-2015 12
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	220	250	240	210	200
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.12	0.052	<0.050	0.096	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	28	32	33	35	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	41
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.8	2.4	2.4	5.9	3.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	200	260	230	210	210
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	<0.010	0.011	<0.010	<0.010
Phosphorus	mg/l	--	--	0.82	0.29	0.49	0.49	0.79
Phosphorus (dissolved reactive)	mg/l	--	--	0.011	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	330	340	308	308	328
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	0.03	<0.02	0.03	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	<0.02	0.77	0.10

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 23-Apr-2013 R-14	G12-92 06-Sep-2013 12-92	G12-92 12-May-2014 12-92	G12-92 26-Aug-2014 12-92	G12-92 20-May-2015 12
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.14	0.03	0.14	0.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	38.2	24.5	25	24	29
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	521	540	604	595	718
pH (Field)	-	--	--	8.01	7.55	7.59	8.34	7.66
Temperature (Field)	deg c	--	15	7.0	14.3	10.4	14.3	11.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 19-Aug-2015 12-92	G12-92 30-Sep-2015 (13) G12-92	G12-92 17-June-2016 12-92	G12-92 02-May-2017 12-92	G12-92 21-Sep-2017 G12-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	200	--	273	170	252
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.059	--	<0.01	0.02	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	30	45
Chloride	mg/l	--	250	--	--	40.2	21.3	25.1
Chloride, dissolved	mg/l	--	250	63	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	622
Dissolved Organic Carbon	mg/l	--	5	2.2	--	1.9	2.3	2.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	270	--	280	191	287
Nitrate as N	mg/l	10	--	--	--	--	0.25	< 0.05
Nitrite as N	mg/l	1	--	--	--	--	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	0.9	0.7
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	<0.01	0.03	0.01
Phosphorus	mg/l	--	--	0.62	--	0.48	0.43	0.37
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	19	23
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	370	352	436	231	315
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.02	0.06
Barium, dissolved	mg/l	1	--	--	--	--	0.016	0.02
Beryllium, dissolved	mg/l	--	--	--	--	--	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.03	--	0.032	0.016	0.039
Cadmium, dissolved	mg/l	0.005	--	--	--	--	< 0.000014	< 0.000014
Calcium, dissolved	mg/l	--	--	--	--	--	44	65.9
Chromium, dissolved	mg/l	0.05	--	--	--	--	< 0.002	< 0.002
Cobalt, dissolved	mg/l	--	--	--	--	0.0002	< 0.005	< 0.005
Copper, dissolved	mg/l	--	1	--	--	--	0.002	< 0.002
Iron, dissolved	mg/l	--	0.3	0.94	--	0.028	0.01	0.008

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 19-Aug-2015 12-92	G12-92 30-Sep-2015 (13) G12-92	G12-92 17-June-2016 12-92	G12-92 02-May-2017 12-92	G12-92 21-Sep-2017 G12-92
Lead, dissolved	mg/l	0.01	--	--	--	--	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	--	--	--	19.6	29.7
Manganese, dissolved	mg/l	--	0.05	0.56	0.13	0.242	0.01	0.117
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	--	0.0003	0.0006
Nickel, dissolved	mg/l	--	--	--	--	--	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	--	--	2.5	5.6
Silicon, dissolved	mg/l	--	--	--	--	--	4.28	5.95
Silver, dissolved	mg/l	--	--	--	--	--	< 0.00002	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	29	--	30.5	22.8	29.7
Strontium, dissolved	mg/l	--	--	--	--		0.15	0.234
Sulfur, dissolved	mg/l	--	--	--	--		7.4	9.9
Thallium, dissolved	mg/l	--	--	--	--		< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--		--	--
Titanium, dissolved	mg/l	--	--	--	--		< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	--	--		0.0017	0.0011
Zinc, dissolved	mg/l	--	5	--	--		< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	< 0.001	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	733	--	--	372	532
pH (Field)	-	--	--	7.65	--	--	6.9	7.3
Temperature (Field)	deg c	--	15	12.8	--	--	6.1	14.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 01-May-2018 12-92	G12-92 01-May-2018 DUP (G45)	RPD	G12-92 21-Aug-2018 12-92	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	233	232	1%	231	
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	NC	< 0.01	
Bicarbonate	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	NC	< 3	
Bromide	mg/l	--	--	--	--	--	--	
Carbonate (CO3)	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	81	83	5%	15	
Chloride	mg/l	--	250	31.6	31.8	1%	36.8	
Chloride, dissolved	mg/l	--	250	--	--	--	--	
Conductivity	µmho/c	--	--	559	561	1%	578	
Dissolved Organic Carbon	mg/l	--	5	2.2	2	18%	2.4	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	80-100	210	212	2%	237	
Nitrate as N	mg/l	10	--	1.17	1.26	15%	0.08	
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	NC	< 0.05	
Nitrogen, Total Kjeldahl	mg/l	--	--	1.6	2	50%	0.5	
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphate, Ortho	mg/l	--	--	0.01	0.01	0%	0.01	
Phosphorus	mg/l	--	--	0.84	0.93	21%	0.25	
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 (6)	20	21	10%	23	
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	303	304	1%	310	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	
Aluminum, dissolved	mg/l	0.1	--	0.04	0.04	0%	0.03	
Barium, dissolved	mg/l	1	--	0.018	0.018	0%	0.023	
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	NC	< 0.0001	
Boron, dissolved	mg/l	5	--	0.022	0.021	9%	0.03	
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015	NC	< 0.000015	
Calcium, dissolved	mg/l	--	--	49	50.3	5%	54.1	
Chromium, dissolved	mg/l	0.05	--	< 0.001	< 0.001	--	< 0.001	
Cobalt, dissolved	mg/l	--	--	< 0.0001	< 0.0001	--	< 0.0001	
Copper, dissolved	mg/l	--	1	0.0007	0.0015	229%	0.001	
Iron, dissolved	mg/l	--	0.3	< 0.005	< 0.005	--	< 0.005	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G12-92 01-May-2018 12-92	G12-92 01-May-2018 DUP (G45)	RPD	G12-92 21-Aug-2018 12-92	
Lead, dissolved	mg/l	0.01	--	0.00005	0.00003	NC	0.00004	
Magnesium, dissolved	mg/l	--	--	21.2	21.1	1%	24.8	
Manganese, dissolved	mg/l	--	0.05	0.033	0.034	6%	0.001	
Mercury	mg/l	--	--	--	--	--	--	
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	NC	< 0.00002	
Molybdenum, dissolved	mg/l	--	--	0.0004	0.0004	0%	0.0005	
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	NC	< 0.01	
Potassium, dissolved	mg/l	--	--	3.5	3.4	6%	3.8	
Silicon, dissolved	mg/l	--	--	4.72	4.77	2%	5.34	
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001	NC	< 0.0001	
Sodium, dissolved	mg/l	--	200 (7)	38.2	37.6	3%	28.4	
Strontium, dissolved	mg/l	--	--	0.177	0.177	0%	0.179	
Sulfur, dissolved	mg/l	--	--	6.1	6.2	3%	7.4	
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	NC	< 0.00005	
Tin, dissolved	mg/l	--	--	--	--	--		
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	NC	< 0.005	
Vanadium, dissolved	mg/l	--	--	0.0002	0.0002	0%	0.0003	
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	--	< 0.005	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	< 0.001	--	0.017	
Field Measurements								
Conductivity (Field)	uS/cm	--	--	478	--	--	452	
pH (Field)	-	--	--	4.7	--	--	7.3	
Temperature (Field)	deg c	--	15	7.4	--	--	14.4	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 30-Apr-1992	G13-92 07-Sep-1992	G13-92 27-Nov-1992	G13-92 05-May-1993	G13-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	164	270	258	203	246
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	0.14	<0.1	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	1	<1	--	--
Bromide	mg/l	--	--	<0.5	1.3	1	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	40	13	26	25
Chloride	mg/l	--	250	4	2	6	4	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	5.9	9.8
Fluoride	mg/l	1.5	--	0.13	0.11	0.11	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	261	394	356	257	284
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.16	0.51	0.13	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.16	0.37	0.13	--	--
Phosphate	mg/l	--	--	0.11	0.14	0.13	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	86	155	125	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	310	460	490	320	370
Total Organic Carbon	mg/l	--	--	3.9	5.1	6.1	7.1	11
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.08	0.49	<0.01	0.77	<0.03
Barium, dissolved	mg/l	1	--	0.03	0.04	0.04	0.02	0.03
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.05	0.1	0.04	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	57	82	85	60	66
Chromium, dissolved	mg/l	0.05	--	<0.01	0.02	0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	<0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 30-Apr-1992	G13-92 07-Sep-1992	G13-92 27-Nov-1992	G13-92 05-May-1993	G13-92 10-Nov-1993
Iron, dissolved	mg/l	--	0.3	0.09	1.67	0.1	0.15	0.09
Lead, dissolved	mg/l	0.01	--	<0.002	0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	29	46	35	26	29
Manganese, dissolved	mg/l	--	0.05	0.11	0.31	0.15	0.12	0.14
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	0.07	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	5	7	4	4	5
Silicon, dissolved	mg/l	--	--	2.7	8.3	4.3	1.1	3
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	17	25	18	15	17
Strontium, dissolved	mg/l	--	--	0.13	0.4	0.35	0.25	<0.01
Sulfur, dissolved	mg/l	--	--	22	53	42	36	33
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	749	800	600	580	750
Temperature (Field)	deg c	--	15	6	8	8	7	7
pH (Field)	-	--	--	6.6	7.1	6.4	6	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 03-Jun-1994	G13-92 08-Sep-1994	G13-92 24-Nov-1994 (5)	G13-92 04-Jun-1995	G13-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	181	255	--	195	283
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	13	--	45	16
Chloride	mg/l	--	250	8	8	--	7	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9.2	5.3	--	20.7	6.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	232	333	--	240	348
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	300	370	--	288	428
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 03-Jun-1994	G13-92 08-Sep-1994	G13-92 24-Nov-1994 (5)	G13-92 04-Jun-1995	G13-92 11-Sep-1995
Iron, dissolved	mg/l	--	0.3	0.02	0.2	--	<0.01	0.28
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.05	0.16	--	0.03	0.13
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	6	11	--	15	26
Strontium, dissolved	mg/l	--	--	0.19	0.303	--	0.2	0.389
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	440	600	--	430	775
Temperature (Field)	deg c	--	15	7.5	13	--	8	12
pH (Field)	-	--	--	7	7.1	--	7.3	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 07-Nov-1995 (5)	G13-92 17-Jul-1996	G13-92 22-Nov-1996	G13-92 10-Jun-1997	G13-92 09-Sep-1997 (9)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	272	265	185	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	16	30	34	--
Chloride	mg/l	--	250	--	6	7	8	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	6	9.7	11.2	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	314	194	197	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	416	424	252	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	46	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 07-Nov-1995 (5)	G13-92 17-Jul-1996	G13-92 22-Nov-1996	G13-92 10-Jun-1997	G13-92 09-Sep-1997 (9)
Iron, dissolved	mg/l	--	0.3	--	0.36	0.85	0.18	--
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	20	--
Manganese, dissolved	mg/l	--	0.05	--	0.24	0.19	0.04	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	24	79	9	--
Strontium, dissolved	mg/l	--	--	--	0.361	0.344	0.171	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	640	440	290	--
Temperature (Field)	deg c	--	15	--	8	6	4	--
pH (Field)	-	--	--	--	7.4	7	6.9	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 11-Jun-1998	G13-92 19-Aug-1998	G13-92 26-May-1999	G13-92 30-Aug-1999	G13-92 31-May-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	228	244	218	271	199
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	16	20	15	35
Chloride	mg/l	--	250	10	9	10	9	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.4	6	9.8	3.3	11.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	301	323	260	360	237
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	1.15
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	340	396	304	476	272
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	0.36
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	57
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 11-Jun-1998	G13-92 19-Aug-1998	G13-92 26-May-1999	G13-92 30-Aug-1999	G13-92 31-May-2000
Iron, dissolved	mg/l	--	0.3	0.6	0.06	0.08	0.02	0.14
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	23
Manganese, dissolved	mg/l	--	0.05	0.09	0.04	0.09	0.18	0.12
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	16	20	16	29	13
Strontium, dissolved	mg/l	--	--	0.27	0.24	0.266	0.328	0.161
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	580	630	420	480	510
Temperature (Field)	deg c	--	15	9	11	5	13	8
pH (Field)	-	--	--	7.05	7.9	7.27	7	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 18-Aug-2000	G13-92 28-May-2001	G13-92 08-Aug-2001	G13-92 04-Apr-2002	G13-92 06-Aug-2002
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	239	226	278	128	230
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.04	1.93	0.04	0.15
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	20	--	--	--	--
Chloride	mg/l	--	250	9	9	8	12	8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.1	6.7	3	9.5	10.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	262	250	330	163	289
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.02	0.11	0.08	0.34	0.79
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--(10)	<0.01	0.02
Sulphate	mg/l	--	500(6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500(6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	356	300	464	244	401
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.42	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.03	0.06	<0.05	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	62	59	76	39	68
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 18-Aug-2000	G13-92 28-May-2001	G13-92 08-Aug-2001	G13-92 04-Apr-2002	G13-92 06-Aug-2002
Iron, dissolved	mg/l	--	0.3	0.31	0.11	0.03	<0.01	0.36
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	26	25	34	16	29
Manganese, dissolved	mg/l	--	0.05	0.04	0.13	0.2	<0.01	0.128
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	14	13	28	8	15
Strontium, dissolved	mg/l	--	--	0.216	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	535	380	-- (10)	360	480
Temperature (Field)	deg c	--	15	13	10	-- (10)	6	15
pH (Field)	-	--	--	7.9	7.5	-- (10)	7.2	7.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 13-May-2003	G13-92 26-Aug-2003	G13-92 26-May-2004	G13-92 26-May-2005	G13-92 25-Aug-2005 (9)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	178	46	191	179	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.25	0.04	0.05	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	16	16	11.9	9	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.4	16.6	5.5	8	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	230	112	262.7	154	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.71	0.8	<0.1	0.52	--
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	0.08	<0.003	0.05	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	325	186	288	287	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	0.09	0.03	0.03	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	54	25	--	37	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 13-May-2003	G13-92 26-Aug-2003	G13-92 26-May-2004	G13-92 26-May-2005	G13-92 25-Aug-2005 (9)
Iron, dissolved	mg/l	--	0.3	0.02	1.08	<0.01	0.09	--
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	23	12	--	15	--
Manganese, dissolved	mg/l	--	0.05	<0.005	0.174	0.086	0.14	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	13	24	13.3	21	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	320	390	351	442	--
Temperature (Field)	deg c	--	15	7	12	7.8	9	--
pH (Field)	-	--	--	7.1	7.2	7.46	7.4	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 31-May-2006	G13-92 07-Sep-2006 (9)	G13-92 28-May-2007	G13-92 28-Aug-2007	G13-92 30-Apr-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	189	--	211	276	140
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	--	0.12	0.05	0.23
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	10	--	12	11	7
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.5	--	10.3	5.2	6.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	196	--	206	332	167
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.09	--	1.26	1.86	0.16
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	--	0.02	0.04	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	297	--	314	438	219
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.03	--	0.02	0.06	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	47	--	51	80	42
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 31-May-2006	G13-92 07-Sep-2006 (9)	G13-92 28-May-2007	G13-92 28-Aug-2007	G13-92 30-Apr-2008
Iron, dissolved	mg/l	--	0.3	0.15	--	0.82	0.43	<0.03
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	19	--	19	32	15
Manganese, dissolved	mg/l	--	0.05	0.05	--	0.11	0.26	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	15	--	11	18	10
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	310	--	450	450	245
Temperature (Field)	deg c	--	15	12	--	10.1	11.4	5
pH (Field)	-	--	--	7.1	--	7.8	7.2	5.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 06-Aug-2008	G13-92 15-Apr-2009 G-13-92	G13-92 13-Aug-2009 13-92	G13-92 31-May-2010 T-3	G13-92 11-Aug-2010 C-12
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	206	178	272	200	273
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.02	0.09	<0.05	<0.05	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	12	10	14	12	10
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.9	4.8	3.9	4.8	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	222	150	320	250	320
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.1	1.3	0.33	0.09	0.19
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	313	280	385	320	422
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	0.02	0.05	0.05	0.06
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	56	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 06-Aug-2008	G13-92 15-Apr-2009 G-13-92	G13-92 13-Aug-2009 13-92	G13-92 31-May-2010 T-3	G13-92 11-Aug-2010 C-12
Iron, dissolved	mg/l	--	0.3	0.04	<0.02	<0.02	<0.02	0.02
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	20	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.02	0.06	<0.01	0.04
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	12	11.8	14.8	13.1	18.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	400	380	594	490	600
Temperature (Field)	deg c	--	15	16	4	15.3	10.0	14.1
pH (Field)	-	--	--	7.1	7.9	2.27	7.40	7.32

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 02-May-2011 R-16	G13-92 22-Aug-2011 (9) G13-92	G13-92 04-Jun-2012 13-92	G13-92 29-Aug-2012 (9) G13-92	G13-92 23-Apr-2013 R-1
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	178	--	200	--	140
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	--	<0.050	--	0.18
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	9	--	11	--	9
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.4	--	5.4	--	5.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	190	--	210	--	160
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.64	--	0.17	--	0.23
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	--	<0.010	--	<0.010
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	264	--	270	--	234
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	--	0.06	--	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 02-May-2011 R-16	G13-92 22-Aug-2011 (9) G13-92	G13-92 04-Jun-2012 13-92	G13-92 29-Aug-2012 (9) G13-92	G13-92 23-Apr-2013 R-1
Iron, dissolved	mg/l	--	0.3	<0.02	--	<0.02	--	<0.02
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	<0.01	--	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	17.8	--	14.0	--	14.1
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	412	--	401	--	330
Temperature (Field)	deg c	--	15	7.2	--	9.9	--	4.4
pH (Field)	-	--	--	7.83	--	7.28	--	7.99

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 06-Sep-2013 G13-92	G13-92 12-May-2014 13-92	G13-92 27-Aug-2014 13-92	G13-92 20-May-2015 13-92	G13-92 19-Aug-2015 13-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	320	180	310	230	310
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.071	0.099	0.061	0.081	0.12
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	20	11	15	--	--
Chloride, dissolved	mg/l	--	250	--	--	--	13	14
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.9	6.2	5.7	5.1	5.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	350	160	310	260	270
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	0.014
Phosphorus	mg/l	--	--	0.43	0.87	0.78	1.1	1.4
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	416	246	396	304	384
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.09	0.05	0.10	0.08	0.08
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 06-Sep-2013 G13-92	G13-92 12-May-2014 13-92	G13-92 27-Aug-2014 13-92	G13-92 20-May-2015 13-92	G13-92 19-Aug-2015 13-92
Iron, dissolved	mg/l	--	0.3	0.05	0.05	0.45	0.12	3.5
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	<0.01	0.05	0.02	0.11
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	22.2	15	21	21	21
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	680	400	663	391	401
Temperature (Field)	deg c	--	15	14.0	9.8	14.2	9.4	12.1
pH (Field)	-	--	--	7.29	7.58	7.51	7.61	7.59

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 16-June-2016	G13-92 02-May-2017	G13-92 21-Sep-2017	G13-92 01-May-2018	G13-92 21-Aug-2018
				13-92	13-92	13-92	13-92	13-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	242	153	314	225	313
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	8.7	6.8	10.9	9	11.9
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	5.7	7.2	24.4	5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	241	161	353	240	325
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Phosphorus	mg/l	--	--	--	0.47	0.07	0.1	0.15
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	327	189	349	266	368
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.088	0.067	0.145	0.096	0.135
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0002	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G13-92 16-June-2016	G13-92 02-May-2017	G13-92 21-Sep-2017	G13-92 01-May-2018	G13-92 21-Aug-2018
				13-92	13-92	13-92	13-92	13-92
Iron, dissolved	mg/l	--	0.3	0.52	0.835	0.074	0.031	0.16
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.018	0.047	0.024	0.096
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	20.6	15.9	25.8	20.8	23.9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	357	581	413	502
Temperature (Field)	deg c	--	15	--	6.2	12.5	4.9	13.1
pH (Field)	-	--	--	--	7	7.2	7.1	7.2

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G17-92 15-Oct-1992	G17-92 28-Nov-1992	G17-92 05-May-1993	G17-92 10-Nov-1993	G17-92 03-Jun-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	280	274	304	309	269
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.1	0.15	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	6	<1	--	--	--
Bromide	mg/l	--	--	<0.5	1.2	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	38	11	10	10	10
Chloride	mg/l	--	250	<1	4	<1	2	2
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	3.6	3.3	2
Fluoride	mg/l	1.5	--	0.09	0.1	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	276	266	300	296	270
Nitrate as N	mg/l	10	--	0.13	0.13	0.1	<0.1	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.41	0.31	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.31	0.16	--	--	--
Phosphate	mg/l	--	--	<0.1	0.13	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	57	54	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	370	380	370	360	340
Total Organic Carbon	mg/l	--	--	12	5.5	4.7	3.7	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	<0.03	0.07	0.76	<0.03	--
Barium, dissolved	mg/l	1	--	0.06	0.04	0.03	0.03	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Boron, dissolved	mg/l	5	--	0.04	<0.01	<0.01	0.03	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	--
Calcium, dissolved	mg/l	--	--	61	62	69	71	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	0.01	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	--
Iron, dissolved	mg/l	--	0.3	0.19	<0.01	0.03	0.56	0.05

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 15-Oct-1992	G17-92 28-Nov-1992	G17-92 05-May-1993	G17-92 10-Nov-1993	G17-92 03-Jun-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	--
Magnesium, dissolved	mg/l	--	--	30	27	31	29	--
Manganese, dissolved	mg/l	--	0.05	1.37	0.12	0.39	0.33	0.12
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Potassium, dissolved	mg/l	--	--	5	4	3	3	--
Silicon, dissolved	mg/l	--	--	5.2	6	1.6	5	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Sodium, dissolved	mg/l	--	200 (7)	25	26	16	17	15
Strontium, dissolved	mg/l	--	--	0.23	0.24	0.23	<0.01	0.21
Sulfur	mg/l	--	--	21	21	16	15	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.003	<0.002	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	550	550	580	750	500
Temperature (Field)	deg c	--	15	6	7	6	7	6.5
pH (Field)	-	--	--	6.6	7	6.4	7.3	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 09-Sep-1994	G17-92 24-Nov-1994 (5)	G17-92 04-Jun-1995	G17-92 11-Sep-1995	G17-92 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	337	--	168	319	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	10	--	7	8	--
Chloride	mg/l	--	250	2	--	<1	1	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.7	--	1.9	3	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	362	--	170	310	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	390	--	204	372	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.31	--	<0.01	0.17	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 09-Sep-1994	G17-92 24-Nov-1994 (5)	G17-92 04-Jun-1995	G17-92 11-Sep-1995	G17-92 07-Nov-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.32	--	0.05	0.23	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	14	--	19	19	--
Strontium, dissolved	mg/l	--	--	0.292	--	0.132	0.288	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	625	--	300	675	--
Temperature (Field)	deg c	--	15	12	--	9.5	16	--
pH (Field)	-	--	--	7	--	7.3	7	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 16-Jul-1996	G17-92 21-Nov-1996	G17-92 10-Jun-1997	G17-92 11-Sep-1997	G17-92 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	315	302	315	305	337
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	8	11	8	11	<3
Chloride	mg/l	--	250	2	1	2	2	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.2	2.9	2.5	3.4	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	293	318	295	300	344
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	372	344	384	384	384
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	67	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.19	1.31	<0.01	0.31	0.48

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 16-Jul-1996	G17-92 21-Nov-1996	G17-92 10-Jun-1997	G17-92 11-Sep-1997	G17-92 11-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	31	--	--
Manganese, dissolved	mg/l	--	0.05	0.37	0.04	0.21	0.17	0.52
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	17	18	16	21	21
Strontium, dissolved	mg/l	--	--	0.285	0.24	0.254	0.265	0.261
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	650	380	385	530	530
Temperature (Field)	deg c	--	15	9	7	4	14.5	11.5
pH (Field)	-	--	--	7.4	6.9	7.1	7.6	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 19-Aug-1998	G17-92 26-May-1999	G17-92 31-Aug-1999	G17-92 31-May-2000	G17-92 18-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	258	352	344	323	345
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	12	8	10	8
Chloride	mg/l	--	250	2	2	2	1	1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	2.8	2.3	3	1.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	330	344	350	317	310
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	0.06	0.01
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	396	368	384	336	388
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	0.1	0.37
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	74	73
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.03	0.05	0.07	0.56	0.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 19-Aug-1998	G17-92 26-May-1999	G17-92 31-Aug-1999	G17-92 31-May-2000	G17-92 18-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	32	31
Manganese, dissolved	mg/l	--	0.05	0.09	0.34	0.28	0.08	0.06
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	21	19	23	17	16
Strontium, dissolved	mg/l	--	--	0.299	0.28	0.249	0.179	0.234
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	670	490	-- (11)	320	606
Temperature (Field)	deg c	--	15	11	5	-- (11)	8	17.3
pH (Field)	-	--	--	7.8	7.24	-- (11)	6.89	7.49

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 28-May-2001	G17-92 08-Aug-2001 (9)	G17-92 03-Apr-2002	G17-92 06-Aug-2002 (9)	G17-92 13-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	286	--	267	--	166
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	--	0.04	--	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	1	--	1	--	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.5	--	1.3	--	2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	273	--	250	--	172
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.18	--	0.11	--	0.2
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	<0.01	--	0.06
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	304	--	356	--	246
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.01	--	<0.05	--	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	63	--	59	--	39
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.28	--	1.12	--	0.23

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G17-92 28-May-2001	G17-92 08-Aug-2001 [9]	G17-92 03-Apr-2002	G17-92 06-Aug-2002 [9]	G17-92 13-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	28	--	25	--	18
Manganese, dissolved	mg/l	--	0.05	0.18	--	0.13	--	0.288
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	14	--	19	--	11
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	320	--	385	--	210
Temperature (Field)	deg c	--	15	9.5	--	6	--	6
pH (Field)	-	--	--	7.5	--	7.1	--	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 26-Aug-2003 (10)	G17-92 26-May-2004	G17-92 27-May-2005 (9)	G17-92 25-Aug-2005 (9)	G17-92 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	348	--	--	408
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	<0.03	--	--	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	2.8	--	--	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	2.5	--	--	4.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	616.4	--	--	430
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.1	--	--	0.69
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.003	--	--	0.08
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	416	--	--	561
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.01	--	--	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	103
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	0.78	--	--	1.78

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 26-Aug-2003 (10)	G17-92 26-May-2004	G17-92 27-May-2005 (9)	G17-92 25-Aug-2005 (9)	G17-92 01-Jun-2006
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	42
Manganese, dissolved	mg/l	--	0.05	--	0.434	--	--	0.35
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	19.8	--	--	20
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	481	--	--	600
Temperature (Field)	deg c	--	15	--	9.1	--	--	9
pH (Field)	-	--	--	--	7.32	--	--	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 07-Sep-2006	G17-92 28-May-2007	G17-92 28-Aug-2007 (9)	G17-92 01-May-2008	G17-92 06-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	457	372	--	237	252
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.23	0.05	--	0.04	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	6	9	--	8	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.5	3.1	--	3	6.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	491	417	--	327	191
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.12	0.15	--	0.3	0.39
Phosphorus (dissolved reactive)	mg/l	--	--	0.08	0.06	--	0.02	0.04
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	645	519	--	378	324
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	0.02	--	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	116	96	--	78	47
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.11	0.61	--	0.94	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 07-Sep-2006	G17-92 28-May-2007	G17-92 28-Aug-2007 (9)	G17-92 01-May-2008	G17-92 06-Aug-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	49	43	--	32	18
Manganese, dissolved	mg/l	--	0.05	0.48	0.21	--	0.33	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	23	16	--	16	28
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	600	575	--	390	465
Temperature (Field)	deg c	--	15	15	9.3	--	4	16
pH (Field)	-	--	--	7.1	8	--	6.9	7.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 15-Apr-2009 G-17-92	G17-92 17-Aug-2009 (9) G17-92	G17-92 27-May-2010 T-1	G17-92 11-Aug-2010 (9) G17-92	G17-92 29-Apr-2011 R-11
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	195	--	447	--	146
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.21	--	<0.05	--	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	6	--	7	--	5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.2	--	2.7	--	2.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	110	--	530	--	320
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.50	--	0.24	--	0.7
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	--	0.03	--	0.03
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	285	--	674	--	396
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	--	0.03	--	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.53	--	<0.02	--	1.45

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 15-Apr-2009 G-17-92	G17-92 17-Aug-2009 (9) G17-92	G17-92 27-May-2010 T-1	G17-92 11-Aug-2010 (9) G17-92	G17-92 29-Apr-2011 R-11
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.21	--	0.23	--	0.20
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	13.8	--	23.7	--	22.5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	460	--	1041	--	463
Temperature (Field)	deg c	--	15	5	--	13.2	--	6.3
pH (Field)	-	--	--	7.4	--	7.10	--	7.47

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 22-Aug-2011 (9) G17-92	G17-92 04-Jun-2012 17-92	G17-92 29-Aug-2012 (9) G17-92	G17-92 23-Apr-2013 R-12	G17-92 06-Sep-2013 (12) G17-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	240	--	240	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	<0.050	--	0.099	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	11	--	20	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	4.7	--	3.2	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	240	--	240	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.57	--	0.86	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.010	--	0.015	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	312	--	390	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	<0.02	--	<0.02	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	1.04	--	0.22	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 22-Aug-2011 (9) G17-92	G17-92 04-Jun-2012 17-92	G17-92 29-Aug-2012 (9) G17-92	G17-92 23-Apr-2013 R-12	G17-92 06-Sep-2013 (12) G17-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	0.14	--	0.16	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	18.0	--	15.6	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	--	679	--
Temperature (Field)	deg c	--	15	--	--	--	7.5	--
pH (Field)	-	--	--	--	--	--	7.84	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 12-May-2014 17-92	G17-92 26-Aug-2014 (15) 17-92	G17-92 20-May-2015 17	G17-92 17-Jun-2015 17	G17-92 19-Aug-2015 (9) G17-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	240	--	180	--	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	--	<0.050	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	28	--	--	--	--
Chloride, dissolved	mg/l	--	250	--	--	26	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.6	--	5.8	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	180	--	160	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	0.012	--	--
Phosphorus	mg/l	--	--	0.37	--	0.20	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	412	--	334	610	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	--	<0.02	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.8	--	0.26	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 12-May-2014 17-92	G17-92 26-Aug-2014 (15) 17-92	G17-92 20-May-2015 17	G17-92 17-Jun-2015 17	G17-92 19-Aug-2015 (9) G17-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.17	--	0.07	--	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	23	--	20	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	572	--	666	708	--
Temperature (Field)	deg c	--	15	9.2	--	9.7	10.1	--
pH (Field)	-	--	--	7.07	--	7.18	7.25	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 16-June-2016 G17-92	G17-92 22-August-2016 G17-92	G17-92 02-May-2017 G17-92	G17-92 21-Sep-2017 G17-92	G17-92 01-May-2018 G17-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	--	162	414	204
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	< 0.01	0.03	0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	18.1	31.4	4.7
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	20.5	6.9	4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	--	201	530	236
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	0.01	0.01	< 0.01
Phosphorus	mg/l	--	--	--	--	0.41	0.33	0.83
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	233	515	233
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	0.016	0.042	0.009
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	0.609	1.76	0.028

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 16-June-2016 G17-92	G17-92 22-August-2016 G17-92	G17-92 02-May-2017 G17-92	G17-92 21-Sep-2017 G17-92	G17-92 01-May-2018 G17-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	0.08	0.219	0.106
Mercury	mg/l	--	--	--	--	--		--
Mercury, dissolved	mg/l	0.001	--	--	--	--		--
Molybdenum, dissolved	mg/l	--	--	--	--	--		--
Nickel, dissolved	mg/l	--	--	--	--	--		--
Potassium, dissolved	mg/l	--	--	--	--	--		--
Silicon, dissolved	mg/l	--	--	--	--	--		--
Silver, dissolved	mg/l	--	--	--	--	--		--
Sodium, dissolved	mg/l	--	200 (7)	--	--	17.4	26.4	9.4
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	452	794	339
Temperature (Field)	deg c	--	15	--	--	6.4	14.7	6
pH (Field)	-	--	--	--	--	7	7.1	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 21-Aug-2018 G17-92				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	267				
Ammonia, unionized (Field)	mg/l	--	--	--				
Ammonia Nitrogen	mg/l	--	--	0.03				
Bicarbonate	mg/l	--	--	--				
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--				
Bromide	mg/l	--	--	--				
Carbonate (CO3)	mg/l	--	--	--				
Chemical Oxygen Demand	mg/l	--	--	--				
Chloride	mg/l	--	250	12.9				
Chloride, dissolved	mg/l	--	250	--				
Conductivity	µmho/c	--	--	--				
Dissolved Organic Carbon	mg/l	--	5	6.3				
Fluoride	mg/l	1.5	--	--				
Hardness, Calcium Carbonate	mg/l	--	80-100	298				
Nitrate as N	mg/l	10	--	--				
Nitrite as N	mg/l	1	--	--				
Nitrogen, Total Kjeldahl	mg/l	--	--	--				
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--				
Nitrogen, Organic	mg/l	--	--	--				
Phosphate	mg/l	--	--	--				
Phosphate, Ortho	mg/l	--	--	< 0.01				
Phosphorus	mg/l	--	--	0.68				
Phosphorus (dissolved reactive)	mg/l	--	--	--				
Sulphate	mg/l	--	500 (6)	--				
Sulphate, dissolved	mg/l	--	500 (6)	--				
Total Dissolved Solids	mg/l	--	500	328				
Total Organic Carbon	mg/l	--	--	--				
Metals								
Aluminum, total	mg/l	0.1	--	--				
Aluminum, dissolved	mg/l	--	--	--				
Barium, dissolved	mg/l	1	--	--				
Beryllium, dissolved	mg/l	--	--	--				
Boron, dissolved	mg/l	5	--	0.031				
Cadmium, dissolved	mg/l	0.005	--	--				
Calcium, dissolved	mg/l	--	--	--				
Chromium, dissolved	mg/l	0.05	--	--				
Cobalt, dissolved	mg/l	--	--	--				
Copper, dissolved	mg/l	--	1	--				
Iron, dissolved	mg/l	--	0.3	1.26				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G17-92 21-Aug-2018 G17-92				
Lead, dissolved	mg/l	0.01	--	--				
Magnesium, dissolved	mg/l	--	--	--				
Manganese, dissolved	mg/l	--	0.05	0.201				
Mercury	mg/l	--	--	--				
Mercury, dissolved	mg/l	0.001	--	--				
Molybdenum, dissolved	mg/l	--	--	--				
Nickel, dissolved	mg/l	--	--	--				
Potassium, dissolved	mg/l	--	--	--				
Silicon, dissolved	mg/l	--	--	--				
Silver, dissolved	mg/l	--	--	--				
Sodium, dissolved	mg/l	--	200 (7)	15				
Strontium, dissolved	mg/l	--	--	--				
Sulfur	mg/l	--	--	--				
Thallium, dissolved	mg/l	--	--	--				
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	--				
Vanadium, dissolved	mg/l	--	--	--				
Zinc, dissolved	mg/l	--	5	--				
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--				
Field Measurements								
Conductivity (Field)	uS/cm	--	--	405				
Temperature (Field)	deg c	--	15	16.4				
pH (Field)	-	--	--	6.9				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 12-Oct-1992	G18-92 27-Nov-1992	G18-92 05-May-1993	G18-92 10-Nov-1993	G18-92 03-Jun-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	162	90	209	163	164
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.67	0.22	--	--	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	3	<1	--	--	--
Bromide	mg/l	--	--	<0.5	0.9	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	33	8	16	15	15
Chloride	mg/l	--	250	35	18	23	19	15
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	7.1	4.9	5.1
Fluoride	mg/l	1.5	--	0.09	0.09	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	304	129	281	198	223
Nitrate as N	mg/l	10	--	0.38	2.4	2	0.23	--
Nitrite as N	mg/l	1	--	<0.1	0.15	<0.1	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.71	0.4	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.04	0.18	--	--	--
Phosphate	mg/l	--	--	0.36	0.21	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	125	41	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	400	230	400	300	330
Total Organic Carbon	mg/l	--	--	10	3.7	7.5	5.6	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	3.95	<0.01	1.16	<0.03	--
Barium, dissolved	mg/l	1	--	0.1	0.04	0.12	0.06	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Boron, dissolved	mg/l	5	--	0.33	0.1	0.26	0.22	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	--
Calcium, dissolved	mg/l	--	--	79	35	78	53	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	--
Iron, dissolved	mg/l	--	0.3	13.1	0.64	12.3	0.28	0.16

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 12-Oct-1992	G18-92 27-Nov-1992	G18-92 05-May-1993	G18-92 10-Nov-1993	G18-92 03-Jun-1994
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	--
Magnesium, dissolved	mg/l	--	--	26	10	21	16	--
Manganese, dissolved	mg/l	--	0.05	2.69	0.37	2.18	0.95	1.27
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Potassium, dissolved	mg/l	--	--	6	2	9	6	--
Silicon, dissolved	mg/l	--	--	17.9	3.8	2.2	4.7	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Sodium, dissolved	mg/l	--	200 (7)	25	6	20	17	12
Strontium, dissolved	mg/l	--	--	0.41	0.2	0.45	0.3	0.35
Sulfur, dissolved	mg/l	--	--	44	14	34	27	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	625	330	630	675	445
Temperature (Field)	deg c	--	15	7	8	4	4.5	8
pH (Field)	-	--	--	6.2	6.2	5.8	6.7	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 08-Sep-1994	G18-92 24-Nov-1994 (5)	G18-92 04-Jun-1995	G18-92 11-Sep-1995	G18-92 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	222	--	112	208	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	30	--	13	30	--
Chloride	mg/l	--	250	19	--	4	14	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	11.9	--	5.4	11.2	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	322	--	125	263	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	370	--	180	368	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.95	--	<0.01	2.18	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 08-Sep-1994	G18-92 24-Nov-1994 (5)	G18-92 04-Jun-1995	G18-92 11-Sep-1995	G18-92 07-Nov-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	2.29	--	0.16	2.3	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	16	--	12	21	--
Strontium, dissolved	mg/l	--	--	0.451	--	0.194	0.456	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	575	--	210	650	--
Temperature (Field)	deg c	--	15	14	--	12	12	--
pH (Field)	-	--	--	6.4	--	6.4	7	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 16-Jul-1996	G18-92 21-Nov-1996	G18-92 10-Jun-1997	G18-92 10-Sep-1997	G18-92 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	191	153	114	155	300
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	29	22	18	16	47
Chloride	mg/l	--	250	9	8	9	15	9
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	12.1	7.2	5.2	9.1	20
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	195	207	133	175	325
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	296	264	220	280	392
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	35	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.78	2.03	0.64	2.42	1.22

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 16-Jul-1996	G18-92 21-Nov-1996	G18-92 10-Jun-1997	G18-92 10-Sep-1997	G18-92 11-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	11	--	--
Manganese, dissolved	mg/l	--	0.05	1.47	1.12	0.15	1.59	3.37
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	17	16	10	18	21
Strontium, dissolved	mg/l	--	--	0.367	0.305	0.203	0.265	0.456
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	450	300	240	420	410
Temperature (Field)	deg c	--	15	12	5	5	15	10.5
pH (Field)	-	--	--	6.9	6.7	7.1	6.9	6.54

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 20-Aug-1998	G18-92 25-May-1999	G18-92 30-Aug-1999	G18-92 02-Jun-2000	G18-92 18-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	274	253	197	223	171
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	38	34	45	33	10
Chloride	mg/l	--	250	8	9	11	8	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	12	10.9	9.8	9.9	4.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	294	286	255	241	155
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	1.4	0.02
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	376	376	364	308	232
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.17	0.2
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	65	44
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.14	0.48	1.1	1.26	0.42

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 20-Aug-1998	G18-92 25-May-1999	G18-92 30-Aug-1999	G18-92 02-Jun-2000	G18-92 18-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	19	11
Manganese, dissolved	mg/l	--	0.05	2.49	1.81	1.35	0.91	0.34
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	24	19	23	17	12
Strontium, dissolved	mg/l	--	--	0.418	1.12	0.334	0.348	0.211
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	680	610	390	410	369
Temperature (Field)	deg c	--	15	13	9	13	9	17.8
pH (Field)	-	--	--	6.8	6.5	7.15	7.08	6.62

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 28-May-2001	G18-92 16-Oct-2001	G18-92 04-Apr-2002	G18-92 07-Aug-2002	G18-92 14-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	200	187	124	293	162
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.4	0.85	0.22	0.94	0.18
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	6	7	6	9	15
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10.3	9.2	6.2	11	6.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	217	193	138	283	194
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.72	1.31	1.07	0.9	0.99
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	<0.01	0.04	0.07
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	320	276	215	400	277
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.19	0.4	0.07	0.17	0.1
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	59	51	37	77	53
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.27	1.83	0.53	4.06	0.98

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 28-May-2001	G18-92 16-Oct-2001	G18-92 04-Apr-2002	G18-92 07-Aug-2002	G18-92 14-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	17	16	11	22	15
Manganese, dissolved	mg/l	--	0.05	0.82	0.74	0.46	2.05	0.373
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	12	16	7	18	10
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	200	410	290	320	380
Temperature (Field)	deg c	--	15	15	12	6	16	6
pH (Field)	-	--	--	6.6	7.4	6.4	6.5	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 27-Aug-2003	G18-92 26-May-2004	G18-92 29-Aug-2004	G18-92 27-May-2005	G18-92 26-Aug-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	232	177	223	115	260
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.26	0.43	0.34	0.12	0.31
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	9	5.8	8.1	4	7
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	8.8	9.5	9.3	4	10.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	261	232.6	296.6	178	335
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.58	<0.1	<0.1	0.17	0.51
Phosphorus (dissolved reactive)	mg/l	--	--	0.05	<0.003	<0.003	0.02	0.11
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	395	336	394	227	444
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.21	0.16	0.22	0.13	0.29
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	70.7	--	--	50	93
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.28	0.59	2.19	0.15	0.79

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 27-Aug-2003	G18-92 26-May-2004	G18-92 29-Aug-2004	G18-92 27-May-2005	G18-92 26-Aug-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	20.5	--	--	13	25
Manganese, dissolved	mg/l	--	0.05	1.54	0.685	1.24	0.06	1.11
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	15.1	10.5	15.7	7	20
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	410	389	500	349	600
Temperature (Field)	deg c	--	15	15	8.7	14	8	15.6
pH (Field)	-	--	--	7.3	7.5	7.2	7.1	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 31-May-2006	G18-92 07-Sep-2006	G18-92 28-May-2007	G18-92 28-Aug-2007	G18-92 30-Apr-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	126	117	195	261	48
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.13	0.53	0.21	0.03
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	6	6	4	5	2
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.3	3.8	6	10	1.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	144	137	199	285	85
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.45	0.15	0.07	0.24	0.06
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.04	0.04	0.16	0.02
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	227	214	296	389	96
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.11	0.18	0.18	0.29	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	41	40	60	86	24
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	0.54	<0.03	0.64	0.17

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 31-May-2006	G18-92 07-Sep-2006	G18-92 28-May-2007	G18-92 28-Aug-2007	G18-92 30-Apr-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	10	9	12	17	6
Manganese, dissolved	mg/l	--	0.05	0.05	0.36	0.05	0.36	0.11
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7	7	6	15	3
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	280	660	500	800	110
Temperature (Field)	deg c	--	15	12	14	9.4	14.8	3
pH (Field)	-	--	--	6.5	6.9	7.8	7.6	5.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 06-Aug-2008	G18-92 13-Apr-2009 G-18-92	G18-92 14-Aug-2009 18-92	G18-92 31-May-2010 T-2	G18-92 11-Aug-2010 C-13
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	138	100	204	213	212
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.14	<0.05	0.08	0.07	<0.05
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	3	2	4	5	5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.3	1.9	5.7	5.9	5.0
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	141	130	250	250	220
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.1	0.13	0.37	0.19	0.13
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	205	130	340	320	284
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.14	0.08	0.21	0.20	0.20
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	40	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	0.07	0.06	0.04	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 06-Aug-2008	G18-92 13-Apr-2009 G-18-92	G18-92 14-Aug-2009 18-92	G18-92 31-May-2010 T-2	G18-92 11-Aug-2010 C-13
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	10	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.04	0.09	0.15	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	7	5.1	10.9	9.4	9.3
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	250	190	474	244	385
Temperature (Field)	deg c	--	15	18	2	16.8	10.9	18.3
pH (Field)	-	--	--	6.9	7.5	6.65	6.81	7.58

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 02-May-2011 R-15	G18-92 23-Aug-2011 G18-92	G18-92 04-Jun-2012 18-92	G18-92 23-Apr-2013 R-2	G18-92 06-Sep-2013 (12) G18-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	108	223	120	99	--
Ammonia, unionized (Field)	mg/l	--	--	--	<0.02	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	0.055	0.11	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2	4	5	2	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.3	5.9	2.5	1.4	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	110	260	120	120	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.080	0.33	0.085	0.071	--
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.010	<0.010	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	168	344	162	96	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.07	0.24	0.10	0.06	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	<0.02	0.03	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 02-May-2011 R-15	G18-92 23-Aug-2011 G18-92	G18-92 04-Jun-2012 18-92	G18-92 23-Apr-2013 R-2	G18-92 06-Sep-2013 (12) G18-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.01	0.06	0.01	0.06	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	3.5	11.2	4.4	4.6	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	346	480	255	159	--
Temperature (Field)	deg c	--	15	7.5	15.1	12.2	2.9	--
pH (Field)	-	--	--	7.41	6.76	6.87	7.43	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 12-May-2014 18-92	G18-92 26-Aug-2014 18-92	G18-92 20-May-2015 18	G18-92 19-Aug-2015 18-92	G18-92 30-Sep-2015 G18-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	58	200	140	220	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.31	0.10	0.18	--
Bicarbonate	mg/l	--	--					
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--					
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	4	5	--	--	--
Chloride, dissolved	mg/l	--	250	--	--	3	4.4	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.7	3.8	3.2	4.0	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	82	220	180	240	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	--
Phosphorus	mg/l	--	--	0.10	0.54	0.12	0.27	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	122	354	272	358	318
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.05	0.18	0.12	0.19	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	0.04	0.82	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 12-May-2014 18-92	G18-92 26-Aug-2014 18-92	G18-92 20-May-2015 18	G18-92 19-Aug-2015 18-92	G18-92 30-Sep-2015 G18-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.05	0.04	0.29	0.04
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	2.7	7.5	4.9	8.4	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	216	708	309	304	639
Temperature (Field)	deg c	--	15	8.6	14.8	9.1	11.9	12.2
pH (Field)	-	--	--	7.51	7.21	7.56	7.60	7.99

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 16-June-2016 G18-92	G18-92 16-June-2016 DUP	RPD	G18-92 23-Aug-2016 G18-92	G18-92 23-Aug-2016 DUP
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	272	250	8%	231	235
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.17	27%	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	5.2	5.3	2%	4.7	4.4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.1	4.9	4%	5.4	6.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	269	270	0%	281	288
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	NC	< 0.01	< 0.01
Phosphorus	mg/l	--	--	1.8	5.68	104%	1.42	1.55
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	374	372
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.159	0.158	1%	0.241	0.242
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0003	0.0003	0%	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.378	0.38	1%	0.07	0.084

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 16-June-2016 G18-92	G18-92 16-June-2016 DUP	RPD	G18-92 23-Aug-2016 G18-92	G18-92 23-Aug-2016 DUP
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.582	0.597	3%	0.287	0.415
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	17.3	17.3	0%	13.7	15.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5					
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--		--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	442	--	--	561	--
Temperature (Field)	deg c	--	15	12.4	--	--	13.2	--
pH (Field)	-	--	--	7.1	--	--	6.7	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD	G18-92 02-May-2017 G18-92	G18-92 21-Sep-2017 G18-92	G18-92 01-May-2018 G18-92	G18-92 21-Aug-2018 G18-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	2%	60	171	111	233
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	< 0.01	< 0.01	0.08	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	< 3	< 3	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	14	50	82	51
Chloride	mg/l	--	250	8%	3.3	5.2	7.9	12
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	444	334	602
Dissolved Organic Carbon	mg/l	--	5	8%	1.8	4.2	2.4	5.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	8%	77	224	165	293
Nitrate as N	mg/l	10	--	--	1.8	3.11	2.39	1.21
Nitrite as N	mg/l	1	--	--	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	0.45	1.1	0.9	1.4
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	NC	< 0.01	0.01	0.04	< 0.01
Phosphorus	mg/l	--	--	8%	0.23	0.99	1.48	0.89
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	11	38	33	64
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	8%	83.1	216	174	336
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	< 0.01	0.05	0.03	0.05
Barium, dissolved	mg/l	1	--	--	0.019	0.043	0.034	0.058
Beryllium, dissolved	mg/l	--	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	8%	0.052	0.179	0.107	0.26
Cadmium, dissolved	mg/l	0.005	--	--	< 0.000014	0.000028	< 0.000015	< 0.000015
Calcium, dissolved	mg/l	--	--	--	21.9	63.7	47.2	84.2
Chromium, dissolved	mg/l	0.05	--	--	< 0.002	< 0.002	0.003	< 0.001
Cobalt, dissolved	mg/l	--	--	--	< 0.0001	< 0.005	0.0001	0.0003
Copper, dissolved	mg/l	--	1	--	0.002	< 0.002	0.0003	0.0011
Iron, dissolved	mg/l	--	0.3	8%	0.024	0.083	0.088	0.051

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD	G18-92 02-May-2017 G18-92	G18-92 21-Sep-2017 G18-92	G18-92 01-May-2018 G18-92	G18-92 21-Aug-2018 G18-92
Lead, dissolved	mg/l	0.01	--	--	< 0.00002	0.00002	< 0.00002	0.00004
Magnesium, dissolved	mg/l	--	--	--	5.43	15.8	11.5	20
Manganese, dissolved	mg/l	--	0.05	8%	0.039	0.195	0.059	0.044
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel, dissolved	mg/l	--	--	--	< 0.01	0.04	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	2.1	5.1	3.5	5.9
Silicon, dissolved	mg/l	--	--	--	4.8	8.67	4.93	7.39
Silver, dissolved	mg/l	--	--	--	< 0.00002	< 0.00002	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 (7)	8%	3	7.9	4.5	10.3
Strontium, dissolved	mg/l	--	--	--	0.12	0.319	0.248	0.427
Sulfur, dissolved	mg/l	--	--	--	4.3	15.2	9.8	21.8
Thallium, dissolved	mg/l	--	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	--	0.0009	0.0011	0.0002	0.0003
Zinc, dissolved	mg/l	--	5		< 0.005	< 0.005	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--		< 0.001	< 0.001	--	< 0.01
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	161	382	777	443
Temperature (Field)	deg c	--	15	--	6	14.2	4.7	16.4
pH (Field)	-	--	--	--	6.6	6.7	6.8	6.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 21-Aug-2018 Dup (G46)	RPD			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	223	4%			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	< 0.01	NC			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	NC			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	44	15%			
Chloride	mg/l	--	250	12.6	5%			
Chloride, dissolved	mg/l	--	250	--				
Conductivity	µmho/c	--	--	601	0%			
Dissolved Organic Carbon	mg/l	--	5	8.1	38%			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	298	2%			
Nitrate as N	mg/l	10	--	1.38	13%			
Nitrite as N	mg/l	1	--	< 0.05	NC			
Nitrogen, Total Kjeldahl	mg/l	--	--	1.5	7%			
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	< 0.01	NC			
Phosphorus	mg/l	--	--	1	12%			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	63	2%			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	333	1%			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	0.05	0%			
Barium, dissolved	mg/l	1	--	0.057	2%			
Beryllium, dissolved	mg/l	--	--	< 0.0001	NC			
Boron, dissolved	mg/l	5	--	0.259	0%			
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	NC			
Calcium, dissolved	mg/l	--	--	85.6	2%			
Chromium, dissolved	mg/l	0.05	--	< 0.001	NC			
Cobalt, dissolved	mg/l	--	--	0.0004	29%			
Copper, dissolved	mg/l	--	1	0.0007	44%			
Iron, dissolved	mg/l	--	0.3	0.062	19%			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G18-92 21-Aug-2018 Dup (G46)	RPD			
Lead, dissolved	mg/l	0.01	--	< 0.00002	NC			
Magnesium, dissolved	mg/l	--	--	20.5	2%			
Manganese, dissolved	mg/l	--	0.05	0.079	57%			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	< 0.00002	NC			
Molybdenum, dissolved	mg/l	--	--	< 0.0001	NC			
Nickel, dissolved	mg/l	--	--	< 0.01	NC			
Potassium, dissolved	mg/l	--	--	5.8	2%			
Silicon, dissolved	mg/l	--	--	7.51	2%			
Silver, dissolved	mg/l	--	--	< 0.0001	NC			
Sodium, dissolved	mg/l	--	200 (7)	10.9	6%			
Strontium, dissolved	mg/l	--	--	0.432	1%			
Sulfur, dissolved	mg/l	--	--	23.4	7%			
Thallium, dissolved	mg/l	--	--	< 0.00005	NC			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	< 0.005	NC			
Vanadium, dissolved	mg/l	--	--	0.0003	0%			
Zinc, dissolved	mg/l	--	5	< 0.005	NC			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.01	NC			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--			
Temperature (Field)	deg c	--	15	--	--			
pH (Field)	-	--	--	--	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 12-Oct-1992 (5)	G20-92 27-Nov-1992 (5)	G20-92 05-May-1993 (5)	G20-92 10-Nov-1993 (5)	G20-92 03-Jun-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	--	--	--	13
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	<3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	1.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	--	--	--	17
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	8.63	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	30
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 12-Oct-1992 (5)	G20-92 27-Nov-1992 (5)	G20-92 05-May-1993 (5)	G20-92 10-Nov-1993 (5)	G20-92 03-Jun-1994
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	<1
Strontium, dissolved	mg/l	--	--	--	--	--	--	0.05
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	--	--	50
Temperature (Field)	deg c	--	15	--	--	--	--	7
pH (Field)	-	--	--	--	--	--	--	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 08-Sep-1994	G20-92 24-Nov-1994 (5)	G20-92 04-Jun-1995	G20-92 11-Sep-1995	G20-92 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	12	--	13	10	--
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	--	5	11	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2	--	1	7	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	--	3.9	2.5	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	8	--	14	19	--
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	45	--	30	44	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.12	--	0.1	0.34	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 08-Sep-1994	G20-92 24-Nov-1994 (5)	G20-92 04-Jun-1995	G20-92 11-Sep-1995	G20-92 07-Nov-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	<0.01	0.01	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	<1	--	9	3	--
Strontium, dissolved	mg/l	--	--	0.031	--	0.053	0.084	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	38	--	55	60	--
Temperature (Field)	deg c	--	15	13	--	9	15	--
pH (Field)	-	--	--	6.5	--	5.7	7.1	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 16-Jul-1996	G20-92 21-Nov-1996	G20-92 10-Jun-1997	G20-92 10-Sep-1997	G20-92 12-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	50	8	12	14	18
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	11	16	21	5	20
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	12	9	15	7	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.3	4.1	7.5	4.4	13
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	41	26	37	30	35
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	40	40	68	60	52
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	10	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.26	0.34	0.23	0.19	0.53

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 16-Jul-1996	G20-92 21-Nov-1996	G20-92 10-Jun-1997	G20-92 10-Sep-1997	G20-92 12-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	3	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.01	0.01	<0.01	0.02
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	13	4	2	3	5
Strontium, dissolved	mg/l	--	--	0.095	0.083	0.139	0.094	0.119
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	66	43	120	68	65
Temperature (Field)	deg c	--	15	9	8.5	3	15	11
pH (Field)	-	--	--	5.6	7.7	7	6.4	5.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 19-Aug-1998	G20-92 25-May-1999	G20-92 30-Aug-1999	G20-92 30-May-2000	G20-92 18-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	17	36	18	26	46
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	11	15	10	74	10
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	3	2	6	107	50
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	5.2	5	30.2	4.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	32	30	31	267	168
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	0.5	0.02
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	52	64	64	564	400
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.09	0.28
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	77	49
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.2	<0.01	0.03	0.05	0.29

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 19-Aug-1998	G20-92 25-May-1999	G20-92 30-Aug-1999	G20-92 30-May-2000	G20-92 18-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	18	11
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	0.03	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	4	5	5	18	6
Strontium, dissolved	mg/l	--	--	0.11	0.142	0.111	1.01	0.623
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	100	100	55	500	398
Temperature (Field)	deg c	--	15	6.5	8	10	7	14.1
pH (Field)	-	--	--	6.5	5.2	7	8.2	5.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 27-May-2001	G20-92 08-Aug-2001	G20-92 04-Apr-2002	G20-92 06-Aug-2002	G20-92 13-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	66	214	257	836	443
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	0.32	0.11	0.12	0.23
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	41	58	65	102	30
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	11.8	35.5	50.7	118	68.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	160	289	844	1020	1030
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	1.96	8.41	0.88	3.97	5.23
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	<0.01	0.03	0.04
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	348	504	1010	1140	1100
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	0.02	<0.05	0.03	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	46	81	305	343	342
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.04	0.02	<0.01	0.63	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 27-May-2001	G20-92 08-Aug-2001	G20-92 04-Apr-2002	G20-92 06-Aug-2002	G20-92 13-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	21	20	39	42
Manganese, dissolved	mg/l	--	0.05	0.42	0.03	0.16	19.6	19.5
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	31	52	36	20	50
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	250	650	1400	660	750
Temperature (Field)	deg c	--	15	9.5	12	5	16	7
pH (Field)	-	--	--	5.7	7.3	6.2	7.2	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 26-Aug-2003 (10)	G20-92 26-May-2004	G20-92 27-May-2005	G20-92 26-Aug-2005	G20-92 03-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	461	449	244	187
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.05	0.14	0.14	0.28
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	14.8	17	17	8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	33.3	43.9	14.9	41.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	1276	827	630	862
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	<0.1	5.64	4.66	3.97
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.003	0.05	0.08	0.02
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	1442	845	832	949
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.05	0.09	0.08	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	270	201	271
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	2.2	4.66	5.13	0.97

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 26-Aug-2003 (10)	G20-92 26-May-2004	G20-92 27-May-2005	G20-92 26-Aug-2005	G20-92 03-Jun-2006
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	37	31	45
Manganese, dissolved	mg/l	--	0.05	--	10.4	3.73	7.9	2.94
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	40.3	24	22	19
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	1670	1300	900	1010
Temperature (Field)	deg c	--	15	--	9.3	9	18.7	9
pH (Field)	-	--	--	--	6.49	7	7.1	7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 07-Sep-2006	G20-92 28-May-2007	G20-92 28-Aug-2007 (9)	G20-92 02-May-2008	G20-92 08-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	384	236	--	283	695
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.58	0.13	--	0.58	0.39
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	43	21	--	34	63
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	61.1	27.9	--	34.3	50.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	635	586	--	598	694
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	6.28	2.86	--	2.08	8.18
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.03	--	0.01	0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	884	722	--	761	930
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.66	0.35	--	0.26	1.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	203	195	--	208	225
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	11.6	0.18	--	0.24	4.57

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 07-Sep-2006	G20-92 28-May-2007	G20-92 28-Aug-2007 (9)	G20-92 02-May-2008	G20-92 08-Aug-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	31	24	--	19	32
Manganese, dissolved	mg/l	--	0.05	3.72	0.89	--	2.93	2.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	42	15	--	35	46
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	910	825	--	750	1430
Temperature (Field)	deg c	--	15	17	10.3	--	10	-- (10)
pH (Field)	-	--	--	7	7.3	--	6.4	-- (10)

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 14-Apr-2009 G-20-92	G20-92 14-Aug-2009 (10) G20-92	G20-92 31-May-2010 M-7	G20-92 11-Aug-2010 (9) G20-92	G20-92 28-Apr-2011 R-3
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	168	--	319	--	205
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	1.2	--	--	--	1.4
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	21	--	14	--	7
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	19.4	--	18.5	--	12.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	280	--	--	--	310
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	12	--	--	--	2.3
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	--	0.02	--	0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	320	--	510	--	352
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.08	--	--	--	0.14
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.48	--	--	--	0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 14-Apr-2009 G-20-92	G20-92 14-Aug-2009 (10) G20-92	G20-92 31-May-2010 M-7	G20-92 11-Aug-2010 (9) G20-92	G20-92 28-Apr-2011 R-3
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	1.34	--	--	--	0.39
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	14.5	--	--	--	11.9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	500	--	-- (10)	--	666
Temperature (Field)	deg c	--	15	2	--	-- (10)	--	3.5
pH (Field)	-	--	--	7.3	--	-- (10)	--	6.72

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 22-Aug-2011 (9) G20-92	G20-92 29-Aug-2012 (9) G20-92	G20-92 23-Apr-2013 R-10	G20-92 06-Sep-2013 (9) G20-92	G20-92 12-May-2014 20-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	--	210	--	300
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	0.27	--	0.38
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	12	--	20
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	14	--	21
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	--	290	--	300
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	3.1	--	3.6
Phosphate, Ortho	mg/l	--	--	--	--	--	--	0.011
Phosphorus, Total	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	<0.010	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	426	--	458
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	0.10	--	0.20
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	<0.02	--	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 22-Aug-2011 (9) G20-92	G20-92 29-Aug-2012 (9) G20-92	G20-92 23-Apr-2013 R-10	G20-92 06-Sep-2013 (9) G20-92	G20-92 12-May-2014 20-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	0.02	--	0.30
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	12.3	--	24
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	602	--	704
Temperature (Field)	deg c	--	15	--	--	3.6	--	12.5
pH (Field)	-	--	--	--	--	7.43	--	7.10

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 26-Aug-2014 (9) 20-92	G20-92 20-May-2015 (12) G20-92	G20-92 18-Aug-2015 (9) G20-92	G20-92 17-June-2016 G20-92	G20-92 02-May-2017 G20-92
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	--	--	420	602
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	7.77	15.8
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	22.8	24.8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	22.3	34.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	--	--	356	531
Nitrate as N	mg/l	--	--	--	--	--	--	4.46
Nitrite as N	mg/l	--	--	--	--	--	--	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--		--
Phosphate, Ortho	mg/l	--	--	--	--	--	0.03	< 0.01
Phosphorus, Total	mg/l	--	--	--	--	--	8.63	0.64
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--		--
Sulphate	mg/l	--	500 (6)	--	--	--	--	28
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	612	712
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								--
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	0.53	1.21
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	171
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	0.0038	0.011
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	1.39	0.923

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 26-Aug-2014 (9) 20-92	G20-92 20-May-2015 (12) G20-92	G20-92 18-Aug-2015 (9) G20-92	G20-92 17-June-2016 G20-92	G20-92 02-May-2017 G20-92
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	25
Manganese, dissolved	mg/l	--	0.05	--	--	--	0.814	1.85
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	23.5
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	45.7	55.5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	--	863	1152
Temperature (Field)	deg c	--	15	--	--	--	11.8	8.4
pH (Field)	-	--	--	--	--	--	7.2	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 20-Sept-2017 DRY	G20-92 01-May-2018 G20-92	G20-92 21-Aug-2018 DRY		
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	635	--		
Ammonia, unionized	mg/l	--	--	--	--	--		
Ammonia Nitrogen	mg/l	--	--	--	18.3	--		
Bicarbonate	mg/l	--	--	--	--	--		
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--		
Bromide	mg/l	--	--	--	--	--		
Carbonate (CO3)	mg/l	--	--	--	--	--		
Chemical Oxygen Demand	mg/l	--	--	--	--	--		
Chloride	mg/l	--	250	--	25.3	--		
Chloride, dissolved	mg/l	--	250	--	--	--		
Conductivity	µmho/c	--	--	--	--	--		
Dissolved Organic Carbon	mg/l	--	5	--	22.8	--		
Fluoride	mg/l	1.5	--	--	--	--		
Hardness, Calcium Carbonate	mg/l	--	80-100	--	550	--		
Nitrate as N	mg/l	--	--	--	--	--		
Nitrite as N	mg/l	--	--	--	--	--		
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--		
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--		
Nitrogen, Organic	mg/l	--	--	--	--	--		
Phosphate	mg/l	--	--	--	--	--		
Phosphate, Ortho	mg/l	--	--	--	< 0.01	--		
Phosphorus, Total	mg/l	--	--	--	1.01	--		
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--		
Sulphate	mg/l	--	500 (6)	--	--	--		
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--		
Total Dissolved Solids	mg/l	--	500	--	746	--		
Total Organic Carbon	mg/l	--	--	--	--	--		
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--		
Aluminum, dissolved	mg/l	0.1	--	--	--	--		
Barium, dissolved	mg/l	1	--	--	--	--		
Beryllium, dissolved	mg/l	--	--	--	--	--		
Boron, dissolved	mg/l	5	--	--	1.01	--		
Cadmium, dissolved	mg/l	0.005	--	--	--	--		
Calcium, dissolved	mg/l	--	--	--	--	--		
Chromium, dissolved	mg/l	0.05	--	--	--	--		
Cobalt, dissolved	mg/l	--	--	--	--	--		
Copper, dissolved	mg/l	--	1	--	--	--		
Iron, dissolved	mg/l	--	0.3	--	0.074	--		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G20-92 20-Sept-2017 DRY	G20-92 01-May-2018 G20-92	G20-92 21-Aug-2018 DRY		
Lead, dissolved	mg/l	0.01	--	--	--	--		
Magnesium, dissolved	mg/l	--	--	--	--	--		
Manganese, dissolved	mg/l	--	0.05	--	0.599	--		
Mercury	mg/l	--	--	--	--	--		
Mercury, dissolved	mg/l	0.001	--	--	--	--		
Molybdenum, dissolved	mg/l	--	--	--	--	--		
Nickel, dissolved	mg/l	--	--	--	--	--		
Potassium, dissolved	mg/l	--	--	--	--	--		
Silicon, dissolved	mg/l	--	--	--	--	--		
Silver, dissolved	mg/l	--	--	--	--	--		
Sodium, dissolved	mg/l	--	200 (7)	--	50.8	--		
Strontium, dissolved	mg/l	--	--	--	--	--		
Sulfur, dissolved	mg/l	--	--	--	--	--		
Thallium, dissolved	mg/l	--	--	--	--	--		
Tin, dissolved	mg/l	--	--	--	--	--		
Titanium, dissolved	mg/l	--	--	--	--	--		
Vanadium, dissolved	mg/l	--	--	--	--	--		
Zinc, dissolved	mg/l	--	5	--	--	--		
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	< 0.001	--		
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	1085	--		
Temperature (Field)	deg c	--	15	--	3.3	--		
pH (Field)	-	--	--	--	6.7	--		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 09-Sep-1994	G21-94 24-Nov-1994 (5)	G21-94 04-Jun-1995	G21-94 11-Sep-1995	G21-94 07-Nov-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	144	--	141	174	--
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	20	--	15	38	--
Chloride	mg/l	--	250	59	--	33	102	197
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.9	--	4.7	11.7	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	215	--	192	316	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	320	--	268	452	652
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	7.01	--	0.98	4.13	1.92

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 09-Sep-1994	G21-94 24-Nov-1994 (5)	G21-94 04-Jun-1995	G21-94 11-Sep-1995	G21-94 07-Nov-1995
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	1.12	--	0.28	0.54	0.59
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	18	--	18	29	--
Strontium, dissolved	mg/l	--	--	0.208	--	0.203	0.347	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	575	--	400	825	1100
Temperature (Field)	deg c	--	15	12	--	12.5	12	12
pH (Field)	-	--	--	6.6	--	6.8	7	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 16-Jul-1996	G21-94 21-Nov-1996	G21-94 10-Jun-1997	G21-94 11-Sep-1997	G21-94 12-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	138	177	129	160	173
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	16	39	31	21	39
Chloride	mg/l	--	250	38	135	21	56	134
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.8	11	6	6.4	10.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	176	410	149	215	386
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	248	520	216	328	520
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	35	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.62	1.46	1.27	3.26	1.12

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 16-Jul-1996	G21-94 21-Nov-1996	G21-94 10-Jun-1997	G21-94 11-Sep-1997	G21-94 12-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	15	--	--
Manganese, dissolved	mg/l	--	0.05	0.12	0.4	0.18	0.3	0.38
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	16	16	9	17	25
Strontium, dissolved	mg/l	--	--	0.212	0.425	0.161	0.252	0.357
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	410	570	250	440	390
Temperature (Field)	deg c	--	15	11	5	8.5	15	10
pH (Field)	-	--	--	7	7.2	5.7	7.8	6.84

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G21-94 19-Aug-1998	G21-94 25-May-1999	G21-94 31-Aug-1999 [9]	G21-94 31-May-2000	G21-94 17-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	186	180	--	178	189
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	16	15	--	15	16
Chloride	mg/l	--	250	67	40	--	24	26
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.3	4.9	--	4.1	4.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	289	218	--	225	194
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	5.78	1.07
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	392	296	--	276	312
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.16	0.29
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	67	56
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.16	1.16	--	0.63	0.82

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 19-Aug-1998	G21-94 25-May-1999	G21-94 31-Aug-1999 (9)	G21-94 31-May-2000	G21-94 17-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	14	13
Manganese, dissolved	mg/l	--	0.05	0.3	0.2	--	0.1	0.12
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	23	19	--	14	13
Strontium, dissolved	mg/l	--	--	0.313	0.241	--	0.208	0.215
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	670	410	--	500	461
Temperature (Field)	deg c	--	15	13	6	--	6	14.7
pH (Field)	-	--	--	7.1	7.08	--	7.1	6.36

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 27-May-2001	G21-94 08-Aug-2001 (9)	G21-94 03-Apr-2002	G21-94 06-Aug-2002	G21-94 13-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	190	--	127	188	125
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.04	--	0.07	0.04	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	58	--	41	76	93
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.7	--	4.5	4.9	5.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	247	--	177	257	237
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	2.55	--	1.48	1.49	1.44
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	<0.01	0.02	0.05
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	400	--	306	437	389
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	--	<0.05	0.07	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	74	--	61	65	67
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.78	--	0.33	1.67	0.88

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 27-May-2001	G21-94 08-Aug-2001 (9)	G21-94 03-Apr-2002	G21-94 06-Aug-2002	G21-94 13-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	15	--	6	23	17
Manganese, dissolved	mg/l	--	0.05	0.08	--	0.07	0.188	0.09
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	18	--	11	33	24
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	300	--	470	440	430
Temperature (Field)	deg c	--	15	10	--	4	15	7
pH (Field)	-	--	--	7	--	6.4	7.4	7.2

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G21-94 26-Aug-2003	G21-94 26-May-2004	G21-94 26-May-2005	G21-94 26-Aug-2005 [9]	G21-94 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	133	108	83	--	67
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	<0.03	0.06	--	0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	94	77.3	121	--	123
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.3	4.6	6.8	--	9.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	270	247.8	280	--	288
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.54	<0.1	0.89	--	9.17
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	<0.003	0.05	--	0.02
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	421	402	475	--	494
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.08	0.02	0.02	--	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	72	--	71	--	71
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.72	0.43	0.89	--	0.56

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 26-Aug-2003	G21-94 26-May-2004	G21-94 26-May-2005	G21-94 26-Aug-2005 (9)	G21-94 01-Jun-2006
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	22	--	25	--	27
Manganese, dissolved	mg/l	--	0.05	0.151	0.118	0.17	--	0.17
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	30	19.6	20	--	26
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	460	468	731	--	600
Temperature (Field)	deg c	--	15	13	8.7	--	--	12
pH (Field)	-	--	--	7.1	7.56	--	--	7.6

Parameter	Unit	(2) (1) ODWQS(169 /03)-Health	(4) (3) ODWQS-AO	G21-94 07-Sep-2006	G21-94 31-May-2007	G21-94 23-Aug-2007 (9)	G21-94 02-May-2008	G21-94 07-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	158	81	--	96	122
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	0.29	--	0.04	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	57	121	--	65	90
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.1	3.5	--	3.4	3.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	166	262	--	134	134
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.43	0.7	--	2.19	6.1
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.03	--	<0.01	<0.01
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	384	463	--	313	394
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.01	0.01	--	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	50	57	--	39	39
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.08	0.13	--	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 07-Sep-2006	G21-94 31-May-2007	G21-94 23-Aug-2007 (9)	G21-94 02-May-2008	G21-94 07-Aug-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	10	29	--	9	9
Manganese, dissolved	mg/l	--	0.05	0.06	0.11	--	0.01	0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	44	40	--	39	53
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	550	500	--	325	480
Temperature (Field)	deg c	--	15	16	10.9	--	8	18
pH (Field)	-	--	--	7.2	7.9	--	6.8	7.4

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G21-94 14-Apr-2009 G-21-94	G21-94 14-Aug-2009 21-94	G21-94 31-May-2010 M-6	G21-94 12-Aug-2010 R-6	G21-94 28-Apr-2011 R-2
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	103	98	115	128	142
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	<0.05	<0.05	<0.05	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	90	160	120	170	99
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.4	1.7	3.1	2.3	1.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	160	220	240	230	120
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.3	2.3 [14]	1.4	1.6	2.1
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	350	500	500	554	376
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	0.02	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	0.05	0.02	0.03	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 14-Apr-2009 G-21-94	G21-94 14-Aug-2009 21-94	G21-94 31-May-2010 M-6	G21-94 12-Aug-2010 R-6	G21-94 28-Apr-2011 R-2
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.04	0.03	0.02	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	39.5	65.8	62.7	93.8	81.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	500	672	772	828	635
Temperature (Field)	deg c	--	15	3	18.2	17.9	17.1	4.3
pH (Field)	-	--	--	7.6	7.02	6.76	6.31	7.33

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 22-Aug-2011 (12) G21-94	G21-94 04-Jun-2012 21-94	G21-94 29-Aug-2012 (12) G21-94	G21-94 23-Apr-2013 R-13	G21-94 06-Sep-2013 (12) G21-94
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	160	--	170	--
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	<0.050	--	0.070	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	180	--	140	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	2.2	--	2.1	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	140	--	140	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	1.0	--	1.8	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.010	--	<0.010	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	506	--	430	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	<0.02	--	<0.02	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	<0.02	--	<0.02	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 22-Aug-2011 (12) G21-94	G21-94 04-Jun-2012 21-94	G21-94 29-Aug-2012 (12) G21-94	G21-94 23-Apr-2013 R-13	G21-94 06-Sep-2013 (12) G21-94
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	<0.01	--	<0.01	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	148	--	133	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	884	--	762	--
Temperature (Field)	deg c	--	15	--	11.8	--	7.5	--
pH (Field)	-	--	--	--	7.13	--	7.78	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 12-May-2014 21-94	G21-94 26-Aug-2014 (12) 21-94	G21-94 20-May-2015 21	G21-94 17-Jun-2015 21	G21-94 19-Aug-2015 21-94
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	170	--	220	--	140
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	--	<0.050	--	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	130	--	--	--	--
Chloride, dissolved	mg/l	--	250	--	--	140	300	1200
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.9	--	2.8	--	1.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	--	190	--	280
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	<0.010	--	<0.010
Phosphorus	mg/l	--	--	1.6	--	0.58	--	2.3
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	434	--	590	780	2800
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	--	<0.02	--	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	--	0.06	--	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 12-May-2014 21-94	G21-94 26-Aug-2014 (12) 21-94	G21-94 20-May-2015 21	G21-94 17-Jun-2015 21	G21-94 19-Aug-2015 21-94
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	<0.01	--	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	120	--	150	170	200
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	849	492	851	908	891
Temperature (Field)	deg c	--	15	12.6	14.5	11.4	11.8	13.1
pH (Field)	-	--	--	7.50	7.22	7.49	7.45	7.49

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 30-Sep-2015 (16) G21-94	G21-94 17-June-2016 G21-94	G21-94 22-Aug-2016 G21-94	G21-94 02-May-2017 G21-94	G21-94 21-Sep-2017 G21-94
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	158	165	131	188
Ammonia, unionized	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	< 0.01	< 0.01	0.03	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	180	2280	84.4	186
Chloride, dissolved	mg/l	--	250	1300	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	1.2	0.2	2.1	2.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	128	431	91	132
Nitrate as N	mg/l	10	--	--	--	--	< 0.05	--
Nitrite as N	mg/l	1	--	--	--	--	< 0.05	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	< 0.01	< 0.01	0.06	0.01
Phosphorus	mg/l	--	--	--	0.57	0.63	0.6	0.16
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	12	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	3520	646	2045	301	579
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals							--	--
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.007	0.01	< 0.005	< 0.005
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	31.9	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	0.0001		< 0.005	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	0.015	< 0.005	0.856	0.016

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 30-Sep-2015 (16) G21-94	G21-94 17-June-2016 G21-94	G21-94 22-Aug-2016 G21-94	G21-94 02-May-2017 G21-94	G21-94 21-Sep-2017 G21-94
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	2.75	--
Manganese, dissolved	mg/l	--	0.05	--	0.006	0.004	0.015	0.016
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	0.9	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	470	143	387	90.3	178
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	891	882	3010	612	915
Temperature (Field)	deg c	--	15	11.9	13	14.8	7	15.5
pH (Field)	-	--	--	7.6	7.8	6.5	7	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 01-May-2018 G21-94	G21-94 21-Aug-2018 G21-94			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	163	99			
Ammonia, unionized	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	37	1070			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	2.5	0.3			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	93	748			
Nitrate as N	mg/l	10	--	--	--			
Nitrite as N	mg/l	1	--	--	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--			
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	0.01	< 0.01			
Phosphorus	mg/l	--	--	0.68	0.33			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	--	--	--			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	268	1827			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	< 0.005	0.008			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	--	--			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	0.014	0.07			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G21-94 01-May-2018 G21-94	G21-94 21-Aug-2018 G21-94			
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	0.001	0.154			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	82.9	389			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur, dissolved	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	383	1826			
Temperature (Field)	deg c	--	15	4.9	15.6			
pH (Field)	-	--	--	7.2	7.1			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 08-Sep-1994	G26-94 24-Nov-1994 (5)	G26-94 04-Jun-1995	G26-94 11-Sep-1995	G26-94 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	16	--	14	14	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	5	--	<3	8	--
Chloride	mg/l	--	250	<1	--	1	<1	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1	--	1.9	1.5	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	23	--	23	35	--
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	40	--	40	60	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.14	--	0.66	0.62	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 08-Sep-1994	G26-94 24-Nov-1994 (5)	G26-94 04-Jun-1995	G26-94 11-Sep-1995	G26-94 07-Nov-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	0.02	0.01	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	<1	--	6	2	--
Strontium, dissolved	mg/l	--	--	0.036	--	0.06	0.105	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	90	--	65	165	--
Temperature (Field)	deg c	--	15	9	--	7.5	9	--
pH (Field)	-	--	--	6.6	--	6.2	8	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 16-Jul-1996	G26-94 21-Nov-1996	G26-94 10-Jun-1997	G26-94 10-Sep-1997	G26-94 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	20	16	8	14	16
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	11	10	<3	<3
Chloride	mg/l	--	250	4	3	1	2	2
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.9	1.6	3.1	1.5	1.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	41	34	36	40	39
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	60	44	80	40	44
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	6	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.42	0.5	0.41	0.48	0.73

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 16-Jul-1996	G26-94 21-Nov-1996	G26-94 10-Jun-1997	G26-94 10-Sep-1997	G26-94 11-Jun-1998
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	5	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	<0.01	<0.01	0.04
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	8	4	3	5	3
Strontium, dissolved	mg/l	--	--	0.09	0.063	0.044	0.044	0.072
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	81	46	34	67	69
Temperature (Field)	deg c	--	15	6	7.5	1.5	14	4.5
pH (Field)	-	--	--	7.8	7.3	7	6.9	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 20-Aug-1998	G26-94 25-May-1999	G26-94 30-Aug-1999	G26-94 02-Jun-2000	G26-94 18-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	13	26	20	21	41
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	<3	8	10	<4
Chloride	mg/l	--	250	3	3	1	2	1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.6	2	1.7	2.9	1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	43	15	4	29	34
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	7.51	0.05
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	52	44	52	36	64
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.7	0.22
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	5	7
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.13	<0.01	0.03	0.92	0.21

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 20-Aug-1998	G26-94 25-May-1999	G26-94 30-Aug-1999	G26-94 02-Jun-2000	G26-94 18-Aug-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	4	4
Manganese, dissolved	mg/l	--	0.05	0.02	<0.01	<0.01	0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	4	4	3	3	3
Strontium, dissolved	mg/l	--	--	0.076	0.059	0.109	0.049	0.073
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	76	83	65	700	67
Temperature (Field)	deg c	--	15	13	10	10	8	15.7
pH (Field)	-	--	--	7	5.8	5.21	6.38	5.66

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 26-May-2001	G26-94 08-Aug-2001	G26-94 04-Apr-2002	G26-94 07-Aug-2002	G26-94 14-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	27	42	58	45	17
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	0.07	0.02	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	26	1	1	1	1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.4	2.3	3.7	2.6	1.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	42	44	58	40	27
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.83	11.1	0.68	0.78	1.05
Phosphorus (dissolved reactive)	mg/l	--	--	--	0.02	<0.01	0.02	0.03
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	76	64	86	69	33
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.01	<0.05	<0.02	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	10	11	15	11	6
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.43	0.01	<0.01	0.02	0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 26-May-2001	G26-94 08-Aug-2001	G26-94 04-Apr-2002	G26-94 07-Aug-2002	G26-94 14-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	4	4	5	3	3
Manganese, dissolved	mg/l	--	0.05	0.12	0.01	<0.01	0.045	0.021
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	2	3	<2	<2	3
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	550	115	620	710	3
Temperature (Field)	deg c	--	15	10.5	12	5	16	6
pH (Field)	-	--	--	7.3	7.3	6.2	6.3	7.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 27-Aug-2003	G26-94 26-May-2004	G26-94 29-Aug-2004	G26-94 27-May-2005	G26-94 25-Aug-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	40	10	22	26	21
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.09	0.06	0.04	0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	2	2.1	5.9	54	40
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.3	3.7	2.1	1.9	1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	30	19.3	21.4	70	61
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.66	<0.1	<0.1	6.23	1.9
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	0.02	0.007	0.05	0.07
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	61	128	34	157	126
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	<0.01	0.02	0.01	0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	7	--	--	18	16
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.01	0.02	0.02	<0.01	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 27-Aug-2003	G26-94 26-May-2004	G26-94 29-Aug-2004	G26-94 27-May-2005	G26-94 25-Aug-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	3	--	--	6	5
Manganese, dissolved	mg/l	--	0.05	0.023	0.026	0.047	0.17	0.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	<2	3.5	4.1	16	9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	120	30	210	241	194
Temperature (Field)	deg c	--	15	14	9.9	16	9	16.2
pH (Field)	-	--	--	7.2	8.6	7.3	7.4	6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 31-May-2006	G26-94 07-Sep-2006	G26-94 28-May-2007	G26-94 28-Aug-2007	G26-94 01-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	26	34	21	9	40
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.04	0.05	<0.02	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	47	11	5	4	3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.8	2.5	3.3	1.9	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	46	21	7	21	26
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.69	0.72	2.64	9.46	4.68
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	0.04	0.02	0.06	0.1
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	160	78	32	1370	79
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	0.01	<0.01	<0.01	0.03
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	12	5	3	5	7
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	0.22	0.07	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 31-May-2006	G26-94 07-Sep-2006	G26-94 28-May-2007	G26-94 28-Aug-2007	G26-94 01-May-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	4	2	<1	2	2
Manganese, dissolved	mg/l	--	0.05	0.06	0.01	0.03	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	25	16	4	5	15
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	200	2610	475	400	121
Temperature (Field)	deg c	--	15	13	15	11.1	13.3	8
pH (Field)	-	--	--	6.4	6.6	8.3	7.3	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 07-Aug-2008	G26-94 13-Apr-2009 G-26-94	G26-94 08-May-2009 26-94	G26-94 13-Aug-2009 26-94	G26-94 01-Jun-2010 C-2
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	44	27	--	17	23
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.05	<0.05	--	0.06	0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	3	160	170	82	83
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.1	1.4	--	0.8	2.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	35	190	--	96	120
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.43	8.6	--	2.5 (14)	3.5 (14)
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	--	<0.01	<0.01
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	72	375	--	210	234
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.01	<0.02	--	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	9	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.03	<0.02	--	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 07-Aug-2008	G26-94 13-Apr-2009 G-26-94	G26-94 08-May-2009 26-94	G26-94 13-Aug-2009 26-94	G26-94 01-Jun-2010 C-2
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	3	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	<0.01	--	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	8	23.1	--	21.0	13.8
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	100	500	--	449	428
Temperature (Field)	deg c	--	15	16	5	--	15.7	10.1
pH (Field)	-	--	--	5.8	7.1	--	6.29	5.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 11-Aug-2010 C-2	G26-94 02-May-2011 R-17	G26-94 23-Aug-2011 G26-94	G26-94 04-Jun-2012 26-94	G26-94 29-Aug-2012 26-94
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	24	35	22	35	38
Ammonia, unionized (Field)	mg/l	--	--	--	--	<0.02	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	0.14	<0.05	<0.050	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	62	5	7	5	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.1	4.1	1.2	2.3	1.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	100	13	21	29	39
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.0 (14)	9.0	4.6	6.7	3.0
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.01	0.01	0.022	<0.010
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	184	54	42	136	24
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	<0.02	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	0.04	<0.02	<0.02	0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 11-Aug-2010 C-2	G26-94 02-May-2011 R-17	G26-94 23-Aug-2011 G26-94	G26-94 04-Jun-2012 26-94	G26-94 29-Aug-2012 26-94
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	<0.01	0.04	<0.01	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	12.8	14.2	7.2	10.0	7.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	279	405	80	97	169
Temperature (Field)	deg c	--	15	14.9	6.9	13.2	9.1	13.2
pH (Field)	-	--	--	5.22	7.30	5.8	5.88	6.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 23-Apr-2013 R-3	G26-94 06-Sep-2013 26-94	G26-94 12-May-2014 26-94	G26-94 26-Aug-2014 26-94	G26-94 20-May-2015 26
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	17	26	41	33	40
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.16	<0.050	0.086	0.074	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	1	3	5	4	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	4
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.9	2.7	3.4	1.6	1.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	17	15	13	21	18
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	0.019	0.023	0.011	0.018
Phosphorus	mg/l	--	--	4.2	2.2	9.9	2.4	2.2
Phosphorus (dissolved reactive)	mg/l	--	--	0.011	--	--	--	--
Sulphate	mg/l		500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	174	100	200	82	122
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	<0.02	<0.02	<0.02	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.07	0.03	0.06	0.09	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 23-Apr-2013 R-3	G26-94 06-Sep-2013 26-94	G26-94 12-May-2014 26-94	G26-94 26-Aug-2014 26-94	G26-94 20-May-2015 26
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.08	<0.01	0.02	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	4.7	8.1	15	10	12
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	81	77	115	115	226
Temperature (Field)	deg c	--	15	6.4	14.9	12.4	15.6	11.5
pH (Field)	-	--	--	7.88	6.64	7.12	7.56	7.30

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 18-Aug-2015 26-94	G26-94 16-June-2016 G26-94	G26-94 22-Aug-2016 G26-94	G26-94 02-May-2017 G26-94	G26-94 21-Sep-2017 G26-94
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	38	23	29	30	60
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.02	< 0.01	0.05	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	11	10
Chloride	mg/l	--	250	--	2.6	3.2	3.1	3.9
Chloride, dissolved	mg/l	--	250	3.3	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	146
Dissolved Organic Carbon	mg/l	--	5	1.6	2.1	1.5	1.3	2.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	18	15	19	19	42
Nitrate as N	mg/l	--	--	--	--	--	0.18	0.11
Nitrite as N	mg/l	--	--	--	--	--	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	0.62	0.3
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.013	0.11	0.04	0.15	0.03
Phosphorus	mg/l	--	--	1.8	4.27	1.85	3.64	1.44
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l		500 (6)	--	--	--	8	4
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	94	43	52	48.3	74
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	0.09	0.02
Barium, dissolved	mg/l	1	--	--	--	--	0.007	0.013
Beryllium, dissolved	mg/l	--	--	--	--	--	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	<0.02	0.006	0.009	0.007	0.009
Cadmium, dissolved	mg/l	0.005	--	--	--	--	< 0.000014	< 0.000014
Calcium, dissolved	mg/l	--	--	--	--	--	4.91	11.1
Chromium, dissolved	mg/l	0.05	--	--	--	--	< 0.002	< 0.002
Cobalt, dissolved	mg/l	--	--	--	0.0001	--	< 0.005	< 0.005
Copper, dissolved	mg/l	--	1	--	--	--	< 0.002	< 0.002
Iron, dissolved	mg/l	--	0.3	0.05	0.045	0.008	0.14	0.011

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 18-Aug-2015 26-94	G26-94 16-June-2016 G26-94	G26-94 22-Aug-2016 G26-94	G26-94 02-May-2017 G26-94	G26-94 21-Sep-2017 G26-94
Lead, dissolved	mg/l	0.01	--	--	--	--	< 0.00002	0.00003
Magnesium, dissolved	mg/l	--	--	--	--	--	1.65	3.56
Manganese, dissolved	mg/l	--	0.05	0.02	0.005	0.003	0.007	0.14
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	--	< 0.0001	< 0.0001
Nickel, dissolved	mg/l	--	--	--	--	--	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	--	--	0.5	1.2
Silicon, dissolved	mg/l	--	--	--	--	--	3.12	5.99
Silver, dissolved	mg/l	--	--	--	--	--	< 0.00002	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	13	8.9	10	11.7	16.2
Strontium, dissolved	mg/l	--	--	--	--	--	0.056	0.123
Sulfur, dissolved	mg/l	--	--	--	--	--	2.9	1.9
Thallium, dissolved	mg/l	--	--	--	--	--	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	0.008	< 0.005
Vanadium, dissolved	mg/l	--	--	--	--	--	0.001	0.0008
Zinc, dissolved	mg/l	--	5	--	--	--	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	< 0.001	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	209	75	87	95	124
Temperature (Field)	deg c	--	15	12.2	9.6	12	6.6	13.2
pH (Field)	-	--	--	7.38	8	6.6	6.4	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 01-May-2018 G26-94	G26-94 21-Aug-2018 G26-94			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	25	26			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	0.02	< 0.01			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	55	10			
Chloride	mg/l	--	250	3.8	3.2			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	96	89.5			
Dissolved Organic Carbon	mg/l	--	5	2.4	2.3			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	34	23			
Nitrate as N	mg/l	--	--	0.08	0.39			
Nitrite as N	mg/l	--	--	< 0.05	< 0.05			
Nitrogen, Total Kjeldahl	mg/l	--	--	0.6	0.2			
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	0.08	0.02			
Phosphorus	mg/l	--	--	4.74	0.48			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l		500 (6)	12	10			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	48	47			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	0.02	0.01			
Barium, dissolved	mg/l	1	--	0.008	0.007			
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001			
Boron, dissolved	mg/l	5	--	0.012	0.009			
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015			
Calcium, dissolved	mg/l	--	--	8.91	6.02			
Chromium, dissolved	mg/l	0.05	--	< 0.001	< 0.001			
Cobalt, dissolved	mg/l	--	--	0.0002	< 0.0001			
Copper, dissolved	mg/l	--	1	0.0009	0.0011			
Iron, dissolved	mg/l	--	0.3	0.007	0.006			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G26-94 01-May-2018 G26-94	G26-94 21-Aug-2018 G26-94			
Lead, dissolved	mg/l	0.01	--	0.00002	0.00008			
Magnesium, dissolved	mg/l	--	--	2.74	1.97			
Manganese, dissolved	mg/l	--	0.05	0.052	0.005			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002			
Molybdenum, dissolved	mg/l	--	--	< 0.0001	< 0.0001			
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01			
Potassium, dissolved	mg/l	--	--	0.9	1			
Silicon, dissolved	mg/l	--	--	2.98	4.7			
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001			
Sodium, dissolved	mg/l	--	200 (7)	5.4	8.6			
Strontium, dissolved	mg/l	--	--	0.099	0.067			
Sulfur, dissolved	mg/l	--	--	3.5	3.3			
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005			
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005			
Vanadium, dissolved	mg/l	--	--	0.0001	0.0002			
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	0.027			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	80	77			
Temperature (Field)	deg c	--	15	5	12.8			
pH (Field)	-	--	--	8.1	7.7			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 10-Jun-1997	G27-97 11-Sep-1997	G27-97 11-Jun-1998	G27-97 19-Aug-1998	G27-97 26-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	170	166	136	136	122
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	16	<3	16	17
Chloride	mg/l	--	250	33	24	20	33	23
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.4	4.8	4	4.8	5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	183	187	157	163	126
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	280	280	236	240	180
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	47	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 10-Jun-1997	G27-97 11-Sep-1997	G27-97 11-Jun-1998	G27-97 19-Aug-1998	G27-97 26-May-1999
Iron, dissolved	mg/l	--	0.3	0.39	1.02	0.76	0.14	0.06
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	16	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.21	0.35	0.16	0.21	0.06
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	18	19	18	22	18
Strontium, dissolved	mg/l	--	--	0.174	0.213	0.132	0.169	0.122
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--		
Field Measurements								
Conductivity (Field)	uS/cm	--	--	410	400	300	430	270
Temperature (Field)	deg c	--	15	9	17	17	16	9
pH (Field)	-	--	--	6.9	6.5	6.7	7.4	6.21

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 30-Aug-1999	G27-97 31-May-2000	G27-97 18-Aug-2000	G27-97 28-May-2001	G27-97 16-Oct-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	98	181	192	217	182
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	0.11	0.31
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	13	8	13	--	--
Chloride	mg/l	--	250	26	21	37	42	40
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.5	4	4.4	6	5.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	136	202	187	232	206
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.03	0.01	0.58	0.38
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	196	256	324	280	312
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.15	0.27	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	0.06	0.06
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	51	47	55	51
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 30-Aug-1999	G27-97 31-May-2000	G27-97 18-Aug-2000	G27-97 28-May-2001	G27-97 16-Oct-2001
Iron, dissolved	mg/l	--	0.3	0.02	0.04	0.46	0.46	0.65
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	19	17	23	19
Manganese, dissolved	mg/l	--	0.05	0.14	0.01	0.24	0.23	0.24
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	19	20	23	22	24
Strontium, dissolved	mg/l	--	--	0.113	0.158	0.18	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	220	210	390	200	320
Temperature (Field)	deg c	--	15	13	7	17	8.5	11
pH (Field)	-	--	--	6.69	6.98	6.9	7	7.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 03-Apr-2002	G27-97 06-Aug-2002	G27-97 13-May-2003	G27-97 26-Aug-2003	G27-97 26-May-2004
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	212	281	229	321	294
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.11	0.03	0.04	<0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	49	57	70	54	58.1
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.6	7.4	8	9.7	11.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	245	302	249	348	346.3
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.25	0.36	0.37	0.24	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.08	0.07	0.06	<0.003
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	376	460	397	482	458
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	0.03	0.05	0.07	0.06
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	52	73	57	85	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 03-Apr-2002	G27-97 06-Aug-2002	G27-97 13-May-2003	G27-97 26-Aug-2003	G27-97 26-May-2004
Iron, dissolved	mg/l	--	0.3	0.58	3.08	0.07	2.33	0.06
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	28	29	26	33	--
Manganese, dissolved	mg/l	--	0.05	0.24	0.506	0.287	0.326	0.399
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	31	29	24	28	29.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	240	250	380	420	600
Temperature (Field)	deg c	--	15	6	16	6	12	11.1
pH (Field)	-	--	--	6.8	7.4	6.9	6.8	6.9

Parameter	Unit	(2) (1) ODWQS(169 /03)-Health	(4) (3) ODWQS-AO	G27-97 30-Aug-2004	G27-97 26-May-2005	G27-97 26-Aug-2005	G27-97 03-Jun-2006	G27-97 07-Sep-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	329	384	362	320	357
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.03	<0.02	0.03	0.14	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	44.6	67	52	51	57
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9	14.3	9.8	12.2	15.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	326.5	361	395	367	396
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.1	0.39	0.12	0.22	0.08
Phosphorus (dissolved reactive)	mg/l	--	--	<0.002	0.07	0.09	0.03	0.04
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	290	576	542	509	625
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.06	0.07	0.09	0.09	0.16
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	87	97	91	96
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 30-Aug-2004	G27-97 26-May-2005	G27-97 26-Aug-2005	G27-97 03-Jun-2006	G27-97 07-Sep-2006
Iron, dissolved	mg/l	--	0.3	3.53	0.15	2.03	1.84	0.74
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	35	37	34	38
Manganese, dissolved	mg/l	--	0.05	0.404	0.17	0.31	0.38	0.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	25.8	28	30	26	42
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	445	886	1000	665	1090
Temperature (Field)	deg c	--	15	15	8	16.7	8	14
pH (Field)	-	--	--	6.8	6.9	7.1	7.3	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 29-May-2007	G27-97 28-Aug-2007	G27-97 30-Apr-2008	G27-97 06-Aug-2008	G27-97 15-Apr-2009 G-27-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	443	493	267	532	429
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.04	0.03	0.03	0.02	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	<1	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	64	74	36	84	72
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	24.7	27.3	11.4	29.5	18.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	510	563	338	536	490
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.15	0.26	0.18	0.09	0.18
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.06	<0.01	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	722	832	449	813	700
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.28	0.36	0.27	0.54	0.31
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	125	143	86	137	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 29-May-2007	G27-97 28-Aug-2007	G27-97 30-Apr-2008	G27-97 06-Aug-2008	G27-97 15-Apr-2009 G-27-97
Iron, dissolved	mg/l	--	0.3	0.32	0.28	0.23	0.49	0.16
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	48	50	30	47	--
Manganese, dissolved	mg/l	--	0.05	0.17	0.11	0.09	0.12	0.08
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	52	60	33	59	46.3
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	750	800	455	1000	900
Temperature (Field)	deg c	--	15	10.9	12.8	7.5	20	3
pH (Field)	-	--	--	7.9	7.8	6.6	7.2	7.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 14-Aug-2009 27-97	G27-97 31-May-2010 T-6	G27-97 11-Aug-2010 C-11	G27-97 29-Apr-2011 R-12	G27-97 23-Aug-2011 G27-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	489	386	376	326	358
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	<0.02
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	<0.05	0.11	0.08
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	73	62	63	47	76
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	23.7	18.3	18.4	13.9	20.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	510	500	520	440	510
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.11	0.17	0.20	0.40	0.3
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	0.02	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	768	700	684	574	800
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.44	0.38	0.43	0.21	0.43
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 14-Aug-2009 27-97	G27-97 31-May-2010 T-6	G27-97 11-Aug-2010 C-11	G27-97 29-Apr-2011 R-12	G27-97 23-Aug-2011 G27-97
Iron, dissolved	mg/l	--	0.3	0.41	0.03	0.03	<0.02	<0.02
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.06	0.05	0.05	0.31	0.03
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	63.9	54.0	58.7	41.6	56.4
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1037	1096	1003	970	1010
Temperature (Field)	deg c	--	15	19.2	11.8	16.3	6.4	16.1
pH (Field)	-	--	--	6.92	7.07	7.35	8.34	7.33

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 04-Jun-2012 27-97	G27-97 29-Aug-2012 (12) G27-97	G27-97 23-Apr-2013 R-11	G27-97 06-Sep-2013 (12) G27-97	G27-97 12-May-2014 27-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	420	--	470	--	380
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	--	0.11	--	0.13
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	77	--	82	--	55
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21	--	29	--	18
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	550	--	550	--	460
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	<0.010
Phosphorus	mg/l	--	--	0.18	--	0.40	--	0.33
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	--	<0.010	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	824	--	766	--	666
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.35	--	0.42	--	0.24
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 04-Jun-2012 27-97	G27-97 29-Aug-2012 (12) G27-97	G27-97 23-Apr-2013 R-11	G27-97 06-Sep-2013 (12) G27-97	G27-97 12-May-2014 27-97
Iron, dissolved	mg/l	--	0.3	0.03	--	0.03	--	0.08
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.07	--	0.07	--	0.11
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	45.2	--	68.8	--	41
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1087	--	1192	--	961
Temperature (Field)	deg c	--	15	13.2	--	6.9	--	11.4
pH (Field)	-	--	--	7.16	--	7.74	--	7.38

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 27-Aug-2014 27-97	G27-97 20-May-2015 27	G27-97 19-Aug-2015 27-97	G27-97 17-June-2016 27-97	Dup. 17-June-2016
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	410	500	440	550	545
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.13	0.087	0.076	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	49	--	--	79.9	80.4
Chloride, dissolved	mg/l	--	250	--	49	48	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	18	25	21	19.6	17.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	500	570	570	603	604
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	< 0.01	< 0.01
Phosphorus	mg/l	--	--	0.36	0.15	0.33	3.73	3.66
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	762	914	746	856	849
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.31	0.47	0.43	0.352	0.353
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	0.001	0.001
Copper, dissolved	mg/l	--	1	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 27-Aug-2014 27-97	G27-97 20-May-2015 27	G27-97 19-Aug-2015 27-97	G27-97 17-June-2016 27-97	Dup. 17-June-2016
Iron, dissolved	mg/l	--	0.3	0.62	0.05	1.3	0.688	0.682
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.11	0.09	0.18	0.161	0.165
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	46	61	56	50.8	51.1
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--				--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1070	1004	1042	1131	--
Temperature (Field)	deg c	--	15	16.0	10.1	13.1	11.4	--
pH (Field)	-	--	--	7.53	7.36	7.31	7.4	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD	G27-97 22-Aug-2016 27-97	G27-97 02-May-2017 27-97	G27-97 21-Sep-2017 27-97	Dup. 21-Sep-2017 Dup G44	RPD
General Chemistry									
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1%	501	539	758	685	10%
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	NC	< 0.01	1.22	< 0.01	< 0.01	NC
Bicarbonate	mg/l	--	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	< 3	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	68	--	--	--
Chloride	mg/l	--	250	1%	98.7	90.6	127	128	1%
Chloride, dissolved	mg/l	--	250		--	--	--	--	
Conductivity	µmho/c	--	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10%	19.4	5.4	22.1	22.5	2%
Fluoride	mg/l	1.5	--	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	0%	618	697	841	844	0%
Nitrate as N	mg/l	--	--	--	--	< 0.05	--	--	--
Nitrite as N	mg/l	--	--	--	--	< 0.05	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	2.86	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	NC	< 0.01	0.04	< 0.01	< 0.01	NC
Phosphorus	mg/l	--	--	2%	1.15	0.33	0.12	0.12	0%
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	126	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1%	870	864	943	954	1%
Total Organic Carbon	mg/l	--	--	--	--	--	--	--	--
Metals									
Aluminum, total	mg/l	0.1	--	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.06	--	--	--
Barium, dissolved	mg/l	1	--	--	--	0.082	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	< 0.0001	--	--	--
Boron, dissolved	mg/l	5	--	0%	0.494	0.384	0.56	0.569	2%
Cadmium, dissolved	mg/l	0.005	--	--	--	0.000022	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	187	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	0.004	--	--	--
Cobalt, dissolved	mg/l	--	--	0%		0.0003	--	--	--
Copper, dissolved	mg/l	--	1	--	--	0.003	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD	G27-97 22-Aug-2016 27-97	G27-97 02-May-2017 27-97	G27-97 21-Sep-2017 27-97	Dup. 21-Sep-2017 Dup G44	RPD
Iron, dissolved	mg/l	--	0.3	1%	1.78	0.565	1.05	1.06	1%
Lead, dissolved	mg/l	0.01	--	--	--	0.00043	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	55.7	--	--	--
Manganese, dissolved	mg/l	--	0.05	2%	0.107	0.902	0.737	0.745	1%
Mercury	mg/l	--	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	0.00003	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	0.0004	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	< 0.01	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	9.5	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	5.69	--	--	--
Silver, dissolved	mg/l	--	--	--	--	< 0.00002	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	1%	67.5	68.9	105	104	1%
Strontium, dissolved	mg/l	--	--	--	--	1.01	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	53.9	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	< 0.00005	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	< 0.005	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	0.0028	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	< 0.005	--	--	--
Phenols									
Phenolics, Total Recoverable	mg/l	--	--	--	--	< 0.001			
Field Measurements									
Conductivity (Field)	uS/cm	--	--	--	1343	1383	1478	--	--
Temperature (Field)	deg c	--	15	--	15.2	7.5	14,5	--	--
pH (Field)	-	--	--	--	7.4	7.1	7.1	--	--

Parameter	Unit	(2) (1) ODWQS(169 /03)-Health	(4) (3) ODWQS-AO	G27-97 01-May-2018 27-97	Dup. 01-May-2018 Dup G46	RPD	G27-97 21-Aug-2018 27-97	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	543	576	6%	556	
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	0.42	0.43	2%	0.03	
Bicarbonate	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	
Bromide	mg/l	--	--	--	--	--	--	
Carbonate (CO3)	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	
Chloride	mg/l	--	250	111	110	1%	136	
Chloride, dissolved	mg/l	--	250	--	--		--	
Conductivity	µmho/c	--	--	--	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	18.8	18.9	1%	17.9	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	80-100	729	737	1%	756	
Nitrate as N	mg/l	--	--	--	--	--	--	
Nitrite as N	mg/l	--	--	--	--	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	NC	< 0.01	
Phosphorus	mg/l	--	--	0.17	0.15	13%	0.1	
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 (6)	--	--	--	--	
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	908	933	3%	1040	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	
Barium, dissolved	mg/l	1	--	--	--	--	--	
Beryllium, dissolved	mg/l	--	--	--	--	--	--	
Boron, dissolved	mg/l	5	--	0.528	0.562	6%	0.902	
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	
Calcium, dissolved	mg/l	--	--	--	--	--	--	
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	
Cobalt, dissolved	mg/l	--	--	--	--	--	--	
Copper, dissolved	mg/l	--	1	--	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G27-97 01-May-2018 27-97	Dup. 01-May-2018 Dup G46	RPD	G27-97 21-Aug-2018 27-97	
Iron, dissolved	mg/l	--	0.3	0.594	0.453	27%	0.589	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	
Magnesium, dissolved	mg/l	--	--	--	--	--	--	
Manganese, dissolved	mg/l	--	0.05	0.529	0.536	1%	0.282	
Mercury	mg/l	--	--	--	--	--	--	
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	
Nickel, dissolved	mg/l	--	--	--	--	--	--	
Potassium, dissolved	mg/l	--	--	--	--	--	--	
Silicon, dissolved	mg/l	--	--	--	--	--	--	
Silver, dissolved	mg/l	--	--	--	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	79.9	82.5	3%	98.1	
Strontium, dissolved	mg/l	--	--	--	--	--	--	
Sulfur, dissolved	mg/l	--	--	--	--	--	--	
Thallium, dissolved	mg/l	--	--	--	--	--	--	
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	--	--	--	--	
Vanadium, dissolved	mg/l	--	--	--	--	--	--	
Zinc, dissolved	mg/l	--	5	--	--	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1190	--	--	1031	
Temperature (Field)	deg c	--	15	5.6	--	--	16.1	
pH (Field)	-	--	--	7.1	--	--	7.2	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 10-Jun-1997	G28-97 11-Sep-1997	G28-97 11-Jun-1998	G28-97 19-Aug-1998	G28-97 25-Jun-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	72	47	63	84	116
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	26	21	10	49	41
Chloride	mg/l	--	250	27	48	51	66	61
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.8	8.6	6.6	16	14
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	79	118	93	129	125
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	156	252	204	248	248
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	15	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.6	3.65	0.23	1.61	1.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 10-Jun-1997	G28-97 11-Sep-1997	G28-97 11-Jun-1998	G28-97 19-Aug-1998	G28-97 25-Jun-1999
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	10	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.11	0.19	0.06	0.19	0.26
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	19	27	31	33	40
Strontium, dissolved	mg/l	--	--	0.075	0.134	0.098	0.178	0.194
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	180	340	280	450	425
Temperature (Field)	deg c	--	15	8	17	15	16	15
pH (Field)	-	--	--	6	6	6.1	6.5	6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 31-Aug-1999	G28-97 30-Sep-1999	G28-97 31-May-2000	G28-97 18-Aug-2000	G28-97 28-May-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	115	72	77	148	109
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	33	25	35	48	--
Chloride	mg/l	--	250	39	41	23	56	63
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	12.3	10.1	14.8	17.1	10.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	116	134	75	135	114
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	0.84	0.06	0.35
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	228	280	152	320	204
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.53	0.19	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	0.1
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	17	31	26
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.67	2.09	<0.01	3.21	2.79

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 31-Aug-1999	G28-97 30-Sep-1999	G28-97 31-May-2000	G28-97 18-Aug-2000	G28-97 28-May-2001
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	8	14	12
Manganese, dissolved	mg/l	--	0.05	0.22	0.34	<0.01	0.39	0.32
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	36	30	24	31	36
Strontium, dissolved	mg/l	--	--	0.144	0.175	0.374	0.208	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	250	441	650	428	300
Temperature (Field)	deg c	--	15	13	15	7	20	9
pH (Field)	-	--	--	6.05	6.46	6.5	6.5	6.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 08-Aug-2001	G28-97 03-Apr-2002	G28-97 06-Aug-2002	G28-97 13-May-2003	G28-97 26-Aug-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	116	47	196	78	79
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.05	0.1	0.06	0.03	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	75	23	68	75	85
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	12.2	3.4	12.7	7.1	8.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	119	77	192	161	160
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.11	0.17	0.07	0.1	0.08
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	<0.01	0.05	0.04	0.03
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	304	187	378	340	339
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.09	<0.05	0.08	0.06	0.09
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	28	16	39	30	36
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.91	1.06	1.18	1.16	0.25

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 08-Aug-2001	G28-97 03-Apr-2002	G28-97 06-Aug-2002	G28-97 13-May-2003	G28-97 26-Aug-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	12	9	23	21	17
Manganese, dissolved	mg/l	--	0.05	0.32	0.13	0.295	0.207	0.214
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	38	24	40	36	44
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	411	360	410	330	395
Temperature (Field)	deg c	--	15	21.1	5	20	6	12
pH (Field)	-	--	--	6.44	6	7.5	7	7.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 26-May-2004	G28-97 30-Aug-2004	G28-97 26-May-2005	G28-97 26-Aug-2005	G28-97 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	144	101	116	137	140
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.03	0.07	<0.02	0.04	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	84.8	68.8	57	129	37
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	14.8	21.1	9.6	15.9	13.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210.6	157.7	127	219	108
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	0.15	0.25	0.07
Phosphorus (dissolved reactive)	mg/l	--	--	<0.003	<0.002	0.03	0.05	0.02
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	376	302	300	484	253
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.07	0.05	0.03	0.09	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	26	45	22
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.53	0.83	0.74	0.93	0.18

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 26-May-2004	G28-97 30-Aug-2004	G28-97 26-May-2005	G28-97 26-Aug-2005	G28-97 01-Jun-2006
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	15	26	13
Manganese, dissolved	mg/l	--	0.05	0.523	0.22	0.17	0.23	0.07
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	44.9	48.5	37	57	33
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	482	410	462	850	300
Temperature (Field)	deg c	--	15	13.7	15	9	17.2	15
pH (Field)	-	--	--	6.94	7.4	7.2	7	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 07-Sep-2006	G28-97 29-May-2007	G28-97 28-Aug-2007 (9)	G28-97 01-May-2008	G28-97 08-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	161	155	--	73	207
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.16	0.04	--	0.07	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	122	42	--	10	136
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	22.3	15.1	--	8.6	23.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	224	157	--	65	248
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.04	0.17	--	0.22	0.03
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	<0.01	--	<0.01	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	510	268	--	116	571
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.05	<0.1	--	0.07	0.6
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	47	33	--	13	50
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.49	3.1	--	0.12	0.43

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 07-Sep-2006	G28-97 29-May-2007	G28-97 28-Aug-2007 (9)	G28-97 01-May-2008	G28-97 08-Aug-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	26	18	--	8	30
Manganese, dissolved	mg/l	--	0.05	0.15	0.1	--	0.03	0.13
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	56	24	--	13	79
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	800	310	--	135	878
Temperature (Field)	deg c	--	15	14	15.7	--	10	19
pH (Field)	-	--	--	7.1	8.1	--	7.7	7.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 15-Apr-2009 G-28-97	G28-97 14-Aug-2009 28-97	G28-97 31-May-2010 T-7	G28-97 11-Aug-2010 C-10	G28-97 29-Apr-2011 R-9
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	81	268	310	315	100
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	<0.05	0.11	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	14	160	150	210	20
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	11.5	23.7	24.9	33.6	13.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	68	260	290	360	61
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.28	0.095	0.02	0.022	0.18
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.03	<0.01	<0.01	0.03
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	135	620	680	830	132
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.18	0.77	1.15	1.31	0.20
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.31	0.58	0.11	0.13	0.52

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 15-Apr-2009 G-28-97	G28-97 14-Aug-2009 28-97	G28-97 31-May-2010 T-7	G28-97 11-Aug-2010 C-10	G28-97 29-Apr-2011 R-9
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	0.12	0.12	0.16	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	21.9	91.8	115	150	23.9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	310	262	1047	1228	251
Temperature (Field)	deg c	--	15	4	21.2	13.7	21.4	7.1
pH (Field)	-	--	--	8	6.64	6.79	7.40	7.99

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 23-Aug-2011 G28-97	G28-97 04-Jun-2012 (18) 28-97	G28-97 29-Aug-2012 (12) G28-97	G28-97 23-Apr-2013 R-17	G28-97 06-Sep-2013 (12) G28-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	291	300	--	100	--
Ammonia, unionized (Field)	mg/l	--	--	<0.02	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.050	--	0.13	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	120	110	--	17	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21.0	27	--	16	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	290	250	--	69	--
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.032	0.21	--	1.0	--
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.010	--	<0.010	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	630	556	--	888	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	1.19	1.4	--	0.31	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.68	0.4	--	0.14	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 23-Aug-2011 G28-97	G28-97 04-Jun-2012 (18) 28-97	G28-97 29-Aug-2012 (12) G28-97	G28-97 23-Apr-2013 R-17	G28-97 06-Sep-2013 (12) G28-97
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.18	0.1	--	0.03	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	84.4	111	--	25.9	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	843	856	--	321	--
Temperature (Field)	deg c	--	15	20.5	13.2	--	6.1	--
pH (Field)	-	--	--	6.66	6.82	--	7.85	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 12-May-2014 28-97	G28-97 26-Aug-2014 28-97	G28-97 20-May-2015 28-97	G28-97 19-Aug-2015 28-97	G28-97 17-June-2016 28-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	160	340	420	540	376
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.076	0.18	0.075	0.081	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	29	200	--	--	95.6
Chloride, dissolved	mg/l	--	250	--	--	98	220	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21	32	27	39	18.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	76	320	250	400	239
Nitrate as N	mg/l	--	--	--	--	--	--	--
Nitrite as N	mg/l	--	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	<0.010	<0.010	< 0.01
Phosphorus	mg/l	--	--	0.41	0.09	0.10	0.11	0.09
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	464	810	790	1110	628
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.93	2.5	1.8	4.0	1.74
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	0.0014
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.11	0.05	0.29	0.04	0.378

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 12-May-2014 28-97	G28-97 26-Aug-2014 28-97	G28-97 20-May-2015 28-97	G28-97 19-Aug-2015 28-97	G28-97 17-June-2016 28-97
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	0.15	0.06	0.08	0.051
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	51	170	120	240	123
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	375	1346	409	504	895
Temperature (Field)	deg c	--	15	12.5	16.1	10.8	11.9	12.1
pH (Field)	-	--	--	7.49	7.76	7.47	7.64	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 02-May-2017 28-97	G28-97 21-Sep-2017 28-97	G28-97 01-May-2018 28-97	G28-97 21-Aug-2018 28-97	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	161	335	298	391	
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	0.06	< 0.01	0.06	< 0.01	
Bicarbonate	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	< 3	--	--	
Bromide	mg/l	--	--	--	--	--	--	
Carbonate (CO3)	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	--	120	--	--	
Chloride	mg/l	--	250	21.7	127	50.1	110	
Chloride, dissolved	mg/l	--	250	--	--	--	--	
Conductivity	µmho/c	--	--	--	1180	--	--	
Dissolved Organic Carbon	mg/l	--	5	15.6	21.9	24.8	44.5	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	80-100	99	371	222	296	
Nitrate as N	mg/l	--	--	--	< 0.05	--	--	
Nitrite as N	mg/l	--	--	--	< 0.05	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	--	1.8	--	--	
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphate, Ortho	mg/l	--	--	0.14	0.01	0.01	< 0.01	
Phosphorus	mg/l	--	--	0.31	0.06	0.1	0.03	
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 (6)	--	53	--	--	
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	210	647	404	710	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, total	mg/l	0.1	--	--		--	--	
Aluminum, dissolved	mg/l	0.1	--	--	0.09	--	--	
Barium, dissolved	mg/l	1	--	--	0.063	--	--	
Beryllium, dissolved	mg/l	--	--	--	< 0.0001	--	--	
Boron, dissolved	mg/l	5	--	0.826	3.48	1.22	3.15	
Cadmium, dissolved	mg/l	0.005	--	--	< 0.000014	--	--	
Calcium, dissolved	mg/l	--	--	--	78.9	--	60.9	
Chromium, dissolved	mg/l	0.05	--	--	0.005	--	--	
Cobalt, dissolved	mg/l	--	--	--	< 0.005	--	--	
Copper, dissolved	mg/l	--	1	--	< 0.002	--	--	
Iron, dissolved	mg/l	--	0.3	0.131	0.444	0.108	0.076	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G28-97 02-May-2017 28-97	G28-97 21-Sep-2017 28-97	G28-97 01-May-2018 28-97	G28-97 21-Aug-2018 28-97	
Lead, dissolved	mg/l	0.01	--	--	0.00004	--	--	
Magnesium, dissolved	mg/l	--	--	--	42.2	--	34.9	
Manganese, dissolved	mg/l	--	0.05	0.021	0.241	0.057	0.119	
Mercury	mg/l	--	--	--	--	--	--	
Mercury, dissolved	mg/l	0.001	--	--	< 0.00002	--	--	
Molybdenum, dissolved	mg/l	--	--	--	0.0003	--	--	
Nickel, dissolved	mg/l	--	--	--	1.21	--	--	
Potassium, dissolved	mg/l	--	--	--	4.4	--	--	
Silicon, dissolved	mg/l	--	--	--	4.21	--	--	
Silver, dissolved	mg/l	--	--	--	< 0.00002	--	--	
Sodium, dissolved	mg/l	--	200 (7)	53.2	151	93.5	165	
Strontium, dissolved	mg/l	--	--	--	0.409	--	--	
Sulfur, dissolved	mg/l	--	--	--	23.2	--	--	
Thallium, dissolved	mg/l	--	--	--	< 0.00005	--	--	
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	--	< 0.005	--	--	
Vanadium, dissolved	mg/l	--	--	--	0.0084	--	--	
Zinc, dissolved	mg/l	--	5	--	0.008	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	< 0.001	--	--	
Field Measurements								
Conductivity (Field)	uS/cm	--	--	369	1016	550	824	
Temperature (Field)	deg c	--	15	7.1	15.8	5	17.1	
pH (Field)	-	--	--	7.2	6.9	7.2	7.0	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 10-Jun-1997	G29-97 10-Sep-1997	G29-97 11-Jun-1998	G29-97 20-Aug-1998	G29-97 25-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	143	100	67	83	114
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	0.07	0.05	0.11
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	<1	<1	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	21	5	<3	<3	10
Chloride	mg/l	--	250	58	50	51	56	33
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.9	3.5	2.6	2	2.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	293	256	323	380	265
Nitrate as N	mg/l	10	--	--	--	2.4	2.35	1.54
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	0.22	0.14	0.27
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	0.15	0.09	0.16
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	3.92	7.32	6.7
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	206	235	150
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	436	400	444	496	384
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	0.17	0.12	<0.03
Barium, dissolved	mg/l	1	--	--	--	0.07	0.09	0.06
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	0.06	0.04	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.005	<0.005	<0.005
Calcium, dissolved	mg/l	--	--	76	--	83	96	68
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	0.02	<0.01
Copper, dissolved	mg/l	--	1	--	--	<0.005	<0.005	0.005
Iron, dissolved	mg/l	--	0.3	0.32	0.51	0.62	0.07	0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 10-Jun-1997	G29-97 10-Sep-1997	G29-97 11-Jun-1998	G29-97 20-Aug-1998	G29-97 25-May-1999
Lead, dissolved	mg/l	0.01	--	--	--	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	25	--	28	34	23
Manganese, dissolved	mg/l	--	0.05	0.17	0.06	0.02	0.07	0.04
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	<0.0002	<0.0002	<0.0002
Molybdenum, dissolved	mg/l	--	--	--	--	<0.03	<0.03	<0.01
Nickel, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	--	--	3	4	2
Silicon, dissolved	mg/l	--	--	--	--	5.2	6	5.7
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	18	21	25	27	18
Strontium, dissolved	mg/l	--	--	0.414	0.446	0.551	0.689	0.383
Sulfur, dissolved	mg/l	--	--	--	--	63	63	44
Thallium, dissolved	mg/l	--	--	--	--	<0.2	<0.2	<0.2
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	--	--	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.002	<0.002	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	620	550	420	800	430
Temperature (Field)	deg c	--	15	2.5	10.5	10	8	5
pH (Field)	-	--	--	6.5	6.2	6.19	6.8	6.34

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G29-97 30-Aug-1999	G29-97 02-Jun-2000	G29-97 18-Aug-2000	G29-97 26-May-2001	G29-97 08-Aug-2001
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	80	119	118	129	113
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.04	0.06	0.03	0.07	0.07
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	2	2	<1	1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	10	15	5	13	8
Chloride	mg/l	--	250	30	27	30	30	34
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.6	4	2.2	3.7	3.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	226	203	204	177	191
Nitrate as N	mg/l	10	--	1.23	0.13	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.23	0.8	0.16	0.23	0.12
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.19	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	8.55	13.4	0.35	3.86	8.39
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	<0.01
Sulphate	mg/l	--	500 [6]	117	80	99	82	76
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	324	288	372	320	288
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.03	<0.05	0.24	0.1	<0.05
Barium, dissolved	mg/l	1	--	0.06	0.04	0.05	0.05	0.05
Beryllium, dissolved	mg/l	--	--	<0.01	<0.002	<0.002	<0.002	<0.002
Boron, dissolved	mg/l	5	--	0.03	0.07	0.06	0.11	0.07
Cadmium, dissolved	mg/l	0.005	--	<0.005	<0.005	<0.0001	0.0002	<0.0001
Calcium, dissolved	mg/l	--	--	56	50	52	43	45
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	0.001	0.016
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	0.0006	0.0005	0.0002
Copper, dissolved	mg/l	--	1	<0.005	<0.01	<0.001	0.001	<0.001
Iron, dissolved	mg/l	--	0.3	<0.01	0.08	0.26	0.14	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 30-Aug-1999	G29-97 02-Jun-2000	G29-97 18-Aug-2000	G29-97 26-May-2001	G29-97 08-Aug-2001
Lead, dissolved	mg/l	0.01	--	<0.05	<0.002	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	21	19	18	17	19
Manganese, dissolved	mg/l	--	0.05	<0.01	0.03	0.02	0.02	0.02
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	0.0005	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	0.02
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	3	2	3	2
Silicon, dissolved	mg/l	--	--	6	4.73	5.75	5.51	5.76
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.0001	0.0006	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	19	22	18	25	18
Strontium, dissolved	mg/l	--	--	0.41	0.313	0.334	0.347	0.312
Sulfur, dissolved	mg/l	--	--	43	30	30	--	--
Thallium, dissolved	mg/l	--	--	<0.5	<0.2	<0.001	<0.001	<0.001
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.001	<0.001	<0.001
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	340	480	477	300	350
Temperature (Field)	deg c	--	15	8	5	12.6	8.5	9
pH (Field)	-	--	--	6.9	6.42	6.5	6.4	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 04-Apr-2002	G29-97 07-Aug-2002	G29-97 14-May-2003	G29-97 27-Aug-2003	G29-97 26-May-2004
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	205	236	350	458	421
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	<0.02	<0.02	<0.02	<0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	4	5	3	<0.5
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	17	13	16	24	31
Chloride	mg/l	--	250	67	94	64	74	50.5
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.9	7.3	7.8	10.6	8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	318	355	417	517	463.6
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.2
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.2
Nitrogen, Total Kjeldahl	mg/l	--	--	0.41	0.4	0.56	0.52	0.52
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.64	1.89	1.6	2.05	<0.05
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.04	0.11	0.12	0.01
Sulphate	mg/l	--	500 (6)	84	66	55	72	43.6
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	471	515	595	728	578
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.05	0.2	<0.01	<0.01	<0.005
Barium, dissolved	mg/l	1	--	0.08	0.08	0.09	0.09	0.106
Beryllium, dissolved	mg/l	--	--	<0.002	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.07	<0.02	0.07	0.06	0.063
Cadmium, dissolved	mg/l	0.005	--	0.0001	0.0001	<0.0001	<0.0001	0.0002
Calcium, dissolved	mg/l	--	--	81	91	106	128	119
Chromium, dissolved	mg/l	0.05	--	0.005	0.025	0.019	0.024	<0.005
Cobalt, dissolved	mg/l	--	--	0.0005	0.0013	0.0012	0.0019	0.0028
Copper, dissolved	mg/l	--	1	0.001	0.003	0.002	0.004	0.003
Iron, dissolved	mg/l	--	0.3	<0.01	0.26	0.02	0.01	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 04-Apr-2002	G29-97 07-Aug-2002	G29-97 14-May-2003	G29-97 27-Aug-2003	G29-97 26-May-2004
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	0.001	<0.0005
Magnesium, dissolved	mg/l	--	--	28	31	37	48	39.9
Manganese, dissolved	mg/l	--	0.05	0.04	0.054	0.081	0.135	0.346
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.005	<0.005	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	<0.01	<0.005	<0.005	<0.005	0.014
Potassium, dissolved	mg/l	--	--	2	2	2	3	2.2
Silicon, dissolved	mg/l	--	--	7.09	6.53	6.1	5.5	5.4
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	22	25	34	41	27.2
Strontium, dissolved	mg/l	--	--	0.561	0.573	0.692	0.723	0.863
Sulfur, dissolved	mg/l	--	--	--	--	--	--	14.9
Thallium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	<0.001
Titanium, dissolved	mg/l	--	--	<0.01	0.01	<0.01	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	0.002	0.008	0.007	0.008	0.0027
Zinc, dissolved	mg/l	--	5	<0.01	<0.005	<0.005	<0.005	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	340	420	600	700	759
Temperature (Field)	deg c	--	15	5	16	7	12	8.9
pH (Field)	-	--	--	6.6	7	6.4	6.6	6.38

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 29-Aug-2004	G29-97 27-May-2005	G29-97 01-Jun-2006	G29-97 07-Sep-2006	G29-97 29-May-2007
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	438	392	388	324	296
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	<0.02	<0.02	0.04	0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	0.7	<1	3	<1	<1
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	32	8	21	19	14
Chloride	mg/l	--	250	47.9	31	24	34	45
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	11.8	8.7	10.7	7.5	8.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	422.2	409	370	308	366
Nitrate as N	mg/l	10	--	<0.2	<0.1	0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.2	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.5	0.58	0.51	0.35	0.32
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	<0.05	10.9	7.68	1.86	3.48
Phosphorus (dissolved reactive)	mg/l	--	--	0.012	0.08	0.05	0.08	0.03
Sulphate	mg/l	--	500 (6)	50.2	49	30	22	45
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	582	573	531	486	489
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.005	<0.01	0.01	<0.01	<0.01
Barium, dissolved	mg/l	1	--	0.082	0.08	0.07	0.06	0.07
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Boron, dissolved	mg/l	5	--	0.048	0.06	0.06	0.06	0.06
Cadmium, dissolved	mg/l	0.005	--	0.0001	<0.0001	<0.0001	<0.0001	0.0001
Calcium, dissolved	mg/l	--	--	108	98	97	79	92
Chromium, dissolved	mg/l	0.05	--	<0.005	0.001	<0.001	0.002	<0.001
Cobalt, dissolved	mg/l	--	--	0.0027	0.003	0.0029	0.0031	0.0102
Copper, dissolved	mg/l	--	1	0.0036	0.008	0.005	0.005	0.004
Iron, dissolved	mg/l	--	0.3	0.03	<0.01	<0.03	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 29-Aug-2004	G29-97 27-May-2005	G29-97 01-Jun-2006	G29-97 07-Sep-2006	G29-97 29-May-2007
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.001	<0.001	<0.001	<0.001
Magnesium, dissolved	mg/l	--	--	37	40	31	27	33
Manganese, dissolved	mg/l	--	0.05	0.342	0.46	0.7	0.48	0.59
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.005	<0.005	<0.005	<0.005
Nickel, dissolved	mg/l	--	--	0.014	0.015	0.012	0.009	0.01
Potassium, dissolved	mg/l	--	--	2.2	2	2	2	2
Silicon, dissolved	mg/l	--	--	5.81	6.7	5.6	6.8	6.5
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	29.3	31	26	29	32
Strontium, dissolved	mg/l	--	--	0.704	0.748	0.595	0.584	0.695
Sulfur, dissolved	mg/l	--	--	16.8	16.3	10	7.3	15
Thallium, dissolved	mg/l	--	--	<0.00005	<0.0001	<0.0001	<0.0001	0.0003
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.0027	0.006	0.002	0.006	0.002
Zinc, dissolved	mg/l	--	5	<0.005	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	810	882	600	610	445
Temperature (Field)	deg c	--	15	15	9	12	14	11.2
pH (Field)	-	--	--	6.7	6.8	6.5	7	7.3

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G29-97 28-Aug-2007	G29-97 02-May-2008	G29-97 07-Aug-2008	G29-97 14-Apr-2009 G-29-97	G29-97 13-Aug-2009 29-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	343	333	398	344	460
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.02	0.05	0.03	0.10	0.10
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	<2	<2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<5	8	22	28	24
Chloride	mg/l	--	250	36	31	30	26	25
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9.6	7.3	10.3	8.4	8.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	378	355	366	440	420
Nitrate as N	mg/l	10	--	<0.1	<0.1	0.41	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.01	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	0.52	0.63	0.61	1.5	1.2
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	<0.1	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.21	3.67	0.05	15	7.8 [14]
Phosphorus (dissolved reactive)	mg/l	--	--	0.09	0.02	0.02	<0.01	0.02
Sulphate	mg/l	--	500 [6]	52	67	40	310	70
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	546	531	565	555	605
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.25	<0.01	<0.01	<0.005	<0.005
Barium, dissolved	mg/l	1	--	0.08	0.06	0.1	0.078	0.078
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.0005	<0.0005
Boron, dissolved	mg/l	5	--	0.05	0.05	0.05	0.05	0.04
Cadmium, dissolved	mg/l	0.005	--	0.0001	<0.0001	0.0001	0.0001	0.0001
Calcium, dissolved	mg/l	--	--	97	91	94	110	110
Chromium, dissolved	mg/l	0.05	--	0.005	0.003	0.006	<0.005	<0.005
Cobalt, dissolved	mg/l	--	--	0.0037	0.0032	0.005	0.0039	0.0047
Copper, dissolved	mg/l	--	1	0.004	0.005	0.006	0.007	0.006
Iron, dissolved	mg/l	--	0.3	0.15	<0.03	<0.03	<0.1	<0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 28-Aug-2007	G29-97 02-May-2008	G29-97 07-Aug-2008	G29-97 14-Apr-2009 G-29-97	G29-97 13-Aug-2009 29-97
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.0005	<0.0005
Magnesium, dissolved	mg/l	--	--	33	31	32	41	38
Manganese, dissolved	mg/l	--	0.05	1.03	0.87	1.94	1.2	1.4
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.001	<0.001
Nickel, dissolved	mg/l	--	--	0.008	0.011	0.012	0.008	0.008
Potassium, dissolved	mg/l	--	--	3	2	2	2.7	2.5
Silicon, dissolved	mg/l	--	--	8.5	7.3	9.2	7.4	6.4
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	29	31	30	41	42
Strontium, dissolved	mg/l	--	--	0.641	0.661	0.598	0.69	0.70
Sulfur, dissolved	mg/l	--	--	17.3	22	13	32.9	22.1
Thallium, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.00005	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	<0.005	<0.005
Vanadium, dissolved	mg/l	--	--	0.01	0.008	0.01	0.001	0.002
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.005	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	925	500	775	750	930
Temperature (Field)	deg c	--	15	11.5	8	16	8	11.9
pH (Field)	-	--	--	7.4	6.6	6.8	7	6.47

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G29-97 01-Jun-2010 C-6	G29-97 11-Aug-2010 R-2	G29-97 29-Apr-2011 S-3	G29-97 23-Aug-2011 G29-97	G29-97 04-Jun-2012 29-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	259	273	258	323	290
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	<0.02	--
Ammonia Nitrogen	mg/l	--	--	0.10	<0.05	0.10	<0.05	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2	<2	<2	<2	<2.0
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	22	18	22	13	6.3
Chloride	mg/l	--	250	40	40	57	35	31
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	7.6	6.1	6.3	7.8	9.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	320	330	310	370	330
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.10
Nitrite as N	mg/l	1	--	<0.01	<0.01	<0.01	<0.01	<0.010
Nitrogen, Total Kjeldahl	mg/l	--	--	4	0.6	<1	2	0.61
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.10
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	17 [14]	8.8 [14]	28	7.4	9.5
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	0.01	0.01	0.01	0.013
Sulphate	mg/l	--	500 [6]	130	110	60	42	64
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	460	480	484	520	492
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.005	<0.005	<0.005	<0.005	0.0053
Barium, dissolved	mg/l	1	--	0.055	0.060	0.056	0.064	0.055
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.00050
Boron, dissolved	mg/l	5	--	0.05	0.04	0.05	0.04	0.046
Cadmium, dissolved	mg/l	0.005	--	<0.0001	0.0001	0.0001	0.0002	0.00012
Calcium, dissolved	mg/l	--	--	85	87	82	98	84
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.005	<0.005	<0.005	<0.0050
Cobalt, dissolved	mg/l	--	--	0.0034	0.0042	0.0036	0.0062	0.0049
Copper, dissolved	mg/l	--	1	0.005	0.004	0.005	0.005	0.0049
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	<0.1	<0.1	<0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 01-Jun-2010 C-6	G29-97 11-Aug-2010 R-2	G29-97 29-Apr-2011 S-3	G29-97 23-Aug-2011 G29-97	G29-97 04-Jun-2012 29-97
Lead, dissolved	mg/l	0.01	--	0.0010	<0.0005	<0.0005	<0.0005	<0.00050
Magnesium, dissolved	mg/l	--	--	26	27	26	30	28
Manganese, dissolved	mg/l	--	0.05	1.7	2.0	1.8	3.8	3.1
Mercury	mg/l	--	--	--	--	--	--	<0.0001
Mercury, dissolved	mg/l	0.001	--	0.0004	<0.0001	<0.0001	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.0005	<0.00050
Nickel, dissolved	mg/l	--	--	0.008	0.006	0.006	0.008	0.0067
Potassium, dissolved	mg/l	--	--	2.1	2.0	1.9	1.9	1.7
Silicon, dissolved	mg/l	--	--	6.2	6.2	6.1	6.0	5.7
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.00010
Sodium, dissolved	mg/l	--	200 (7)	36	41	35	32	28
Strontium, dissolved	mg/l	--	--	0.52	0.52	0.52	0.64	0.54
Sulfur, dissolved	mg/l	--	--	21.0	23.3	16.4	15.5	20.1
Thallium, dissolved	mg/l	--	--	<0.00005	<0.00005	<0.00005	<0.00005	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.0050
Vanadium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	0.0010	0.0010
Zinc, dissolved	mg/l	--	5	0.007	<0.005	0.008	0.008	<0.0050
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	739	718	797	727	680
Temperature (Field)	deg c	--	15	11.1	17.5	8.2	11.6	9.9
pH (Field)	-	--	--	6.56	6.48	7.78	6.56	6.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 29-Aug-2012 29-97	G29-97 23-Apr-2013 S-2	G29-97 06-Sep-2013 29-97	G29-97 12-May-2014 29-97	G29-97 26-Aug-2014 29-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	340	360	490	390	460
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.55	0.10	0.11	0.14
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2.0	<2.0	<2.0	<2.0	<2.0
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	20	46	31	28	24
Chloride	mg/l	--	250	38	110	57	65	37
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	9.9	17	12	15	12
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	370	550	570	540	510
Nitrate as N	mg/l	10	--	<0.10	<0.10	0.32	<0.10	0.43
Nitrite as N	mg/l	1	--	<0.010	<0.010	<0.010	<0.010	0.025
Nitrogen, Total Kjeldahl	mg/l	--	--	0.90	1.7	0.99	<1.0 (19)	2.0
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	<0.10	0.32	<0.10	0.45
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	0.013	<0.010	<0.010
Phosphorus	mg/l	--	--	4.2	13	14	15	9.4
Phosphorus (dissolved reactive)	mg/l	--	--	0.012	<0.010	--	--	--
Sulphate	mg/l	--	500 (6)	58	110	92	200	95
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	546	762	774	774	682
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	<0.0050	<0.0050	<0.0050	0.005	<0.0050
Barium, dissolved	mg/l	1	--	0.066	0.083	0.094	0.085	0.079
Beryllium, dissolved	mg/l	--	--	<0.00050	<0.00050	<0.00050	<0.0005	<0.00050
Boron, dissolved	mg/l	5	--	0.051	0.047	0.07	0.052	0.059
Cadmium, dissolved	mg/l	0.005	--	0.00015	0.00020	0.00024	0.0002	0.00022
Calcium, dissolved	mg/l	--	--	95	140	150	150	130
Chromium, dissolved	mg/l	0.05	--	<0.0050	<0.0050	<0.0050	<0.005	<0.0050
Cobalt, dissolved	mg/l	--	--	0.0054	0.0077	0.0083	0.0071	0.0077
Copper, dissolved	mg/l	--	1	0.0041	0.0055	0.0061	0.007	0.0075
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	<0.1	<0.1	<0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 29-Aug-2012 29-97	G29-97 23-Apr-2013 S-2	G29-97 06-Sep-2013 29-97	G29-97 12-May-2014 29-97	G29-97 26-Aug-2014 29-97
Lead, dissolved	mg/l	0.01	--	<0.00050	<0.00050	<0.00050	<0.0005	<0.00050
Magnesium, dissolved	mg/l	--	--	32	45	48	44	42
Manganese, dissolved	mg/l	--	0.05	3	4.2	5.1	5.1	4.7
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.00050	<0.00050	<0.00050	<0.0005	<0.00050
Nickel, dissolved	mg/l	--	--	0.0069	0.0085	0.0094	0.009	0.0081
Potassium, dissolved	mg/l	--	--	2	2.3	2.4	2.1	2.2
Silicon, dissolved	mg/l	--	--	6	6.4	6.5	6.1	6
Silver, dissolved	mg/l	--	--	<0.00010	<0.00010	<0.00010	<0.0001	<0.00010
Sodium, dissolved	mg/l	--	200 (7)	31	35	39	31	34
Strontium, dissolved	mg/l	--	--	0.6	0.82	0.88	0.86	0.79
Sulfur, dissolved	mg/l	--	--	22.8	35.8	34.4	59	32
Thallium, dissolved	mg/l	--	--	<0.000050	<0.000050	<0.000050	<0.00005	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.0050	<0.0050	<0.0050	<0.005	<0.0050
Vanadium, dissolved	mg/l	--	--	0.0014	0.0017	0.0016	0.0014	0.0013
Zinc, dissolved	mg/l	--	5	<0.0050	<0.0050	<0.0050	0.008	<0.0050
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	851	987	1079	1016	1121
Temperature (Field)	deg c	--	15	11.1	9.7	11.1	12.4	12.1
pH (Field)	-	--	--	6.67	6.88	6.38	6.77	7.80

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 20-May-2015 29	G29-97 18-Aug-2015 29-97	G29-97 16-June-2016 29-97	G29-97 22-Aug-2016 29-97	G29-97 02-May-2017 29-97
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	430	470	590	614	435
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.091	0.055	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2.0	<2.0	< 3	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	39	40	218	124	30
Chloride	mg/l	--	250	--	--	--	--	15.5
Chloride, dissolved	mg/l	--	250	34	35	49	36.1	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	15	14	16.1	14.7	10.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	520	540	661	652	475
Nitrate as N	mg/l	10	--	0.32	<0.10	1.3	0.4	2.23
Nitrite as N	mg/l	1	--	0.020	<0.010	< 0.1	< 0.1	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	1.1	0.83	1.4	1.5	1.25
Nitrogen, Nitrate-Nitrite	mg/l	10	--	0.34	<0.10	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.014	0.012	0.07	0.04	0.02
Phosphorus	mg/l	--	--	10	8.4	4.61	17.2	3.74
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	32
Sulphate, dissolved	mg/l	--	500 (6)	130	130	122	79	--
Total Dissolved Solids	mg/l	--	500	928	800	890	809	510
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.011	<0.0050	0.05	0.05	0.04
Barium, dissolved	mg/l	1	--	0.073	0.076	0.108	0.105	0.075
Beryllium, dissolved	mg/l	--	--	<0.0005	<0.00050	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.068	0.051	0.06	0.09	0.053
Cadmium, dissolved	mg/l	0.005	--	0.0001	0.00015	0.00015	0.00007	0.000127
Calcium, dissolved	mg/l	--	--	140	140	176	173	127
Chromium, dissolved	mg/l	0.05	--	<0.005	<0.0050	< 0.002	0.01	< 0.002
Cobalt, dissolved	mg/l	--	--	0.0063	0.0064	0.0079	0.0068	0.01
Copper, dissolved	mg/l	--	1	0.006	0.0047	0.005	0.005	0.005
Iron, dissolved	mg/l	--	0.3	<0.1	<0.1	0.017	0.056	0.008

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 20-May-2015	G29-97 18-Aug-2015	G29-97 16-June-2016	G29-97 22-Aug-2016	G29-97 02-May-2017
				29	29-97	29-97	29-97	29-97
Lead, dissolved	mg/l	0.01	--	<0.0005	<0.00050	< 0.00002	< 0.00002	< 0.00002
Magnesium, dissolved	mg/l	--	--	42	45	53.4	53.4	38.2
Manganese, dissolved	mg/l	--	0.05	4.5	4.5	5.36	4.61	3.66
Mercury	mg/l	--	--	--	<0.0001	< 0.00002	< 0.00002	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	< 0.00002
Molybdenum, dissolved	mg/l	--	--	<0.0005	<0.00050	0.0004	0.0004	0.0003
Nickel, dissolved	mg/l	--	--	0.007	0.0072	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	2	2.2	2.3	2.7	1.8
Silicon, dissolved	mg/l	--	--	5.8	5.9	6.62	7.29	6.66
Silver, dissolved	mg/l	--	--	<0.0001	<0.00010	< 0.00002	< 0.00002	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	25	37	47.9	52.4	30.9
Strontium, dissolved	mg/l	--	--	0.79	0.78	1.04	0.954	0.737
Sulfur, dissolved	mg/l	--	--	35	36	39.7	32.8	16.3
Thallium, dissolved	mg/l	--	--	<0.00005	<0.000050	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	<0.0050	< 0.005	< 0.005	< 0.005
Vanadium, dissolved	mg/l	--	--	0.0014	0.00094	0.0042	0.0054	0.0052
Zinc, dissolved	mg/l	--	5	<0.005	<0.0050	< 0.005	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	<0.0010	< 0.001	< 0.001	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1121	1226	1115	1206	864
Temperature (Field)	deg c	--	15	11.9	12.2	9.8	9.1	8.2
pH (Field)	-	--	--	6.84	6.94	6.8	6.6	6.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 21-Sep-2017 29-97	G29-97 01-May-2018 29-97	G29-97 21-Aug-2018 29-97		
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	296	464	487		
Ammonia, unionized (Field)	mg/l	--	--	--	--	--		
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01		
Bicarbonate	mg/l	--	--	--	--	--		
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	< 3		
Bromide	mg/l	--	--	--	--	--		
Carbonate (CO3)	mg/l	--	--	--	--	--		
Chemical Oxygen Demand	mg/l	--	--	101	99	124		
Chloride	mg/l	--	250	7.9	28.8	15.7		
Chloride, dissolved	mg/l	--	250	--	--	--		
Conductivity	µmho/c	--	--	676	1030	1040		
Dissolved Organic Carbon	mg/l	--	5	10.1	13.2	16.1		
Fluoride	mg/l	1.5	--	--	--	--		
Hardness, Calcium Carbonate	mg/l	--	80-100	357	545	556		
Nitrate as N	mg/l	10	--	2.65	0.12	0.77		
Nitrite as N	mg/l	1	--	< 0.05	< 0.05	< 0.05		
Nitrogen, Total Kjeldahl	mg/l	--	--	1.2	1.8	1.7		
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--		
Nitrogen, Organic	mg/l	--	--	--	--	--		
Phosphate	mg/l	--	--	--	--	--		
Phosphate, Ortho	mg/l	--	--	0.01	0.02	0.01		
Phosphorus	mg/l	--	--	5.02	12.3	16.5		
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--		
Sulphate	mg/l	--	500 (6)	19	53	41		
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--		
Total Dissolved Solids	mg/l	--	500	329	590	594		
Total Organic Carbon	mg/l	--	--	--	--	--		
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--		
Aluminum, dissolved	mg/l	0.1	--	0.06	0.08	0.07		
Barium, dissolved	mg/l	1	--	0.055	0.093	0.091		
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001		
Boron, dissolved	mg/l	5	--	0.085	0.074	0.075		
Cadmium, dissolved	mg/l	0.005	--	0.000034	0.000144	0.000179		
Calcium, dissolved	mg/l	--	--	95	149	153		
Chromium, dissolved	mg/l	0.05	--	< 0.002	< 0.001	< 0.001		
Cobalt, dissolved	mg/l	--	--	< 0.005	0.0055	0.0074		
Copper, dissolved	mg/l	--	1	< 0.002	0.0053	0.0067		
Iron, dissolved	mg/l	--	0.3	0.039	0.021	0.005		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G29-97 21-Sep-2017 29-97	G29-97 01-May-2018 29-97	G29-97 21-Aug-2018 29-97		
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.00002	< 0.00002		
Magnesium, dissolved	mg/l	--	--	29.1	42	42.3		
Manganese, dissolved	mg/l	--	0.05	2.38	3.52	3.83		
Mercury	mg/l	--	--	--	--	--		
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002		
Molybdenum, dissolved	mg/l	--	--	0.0003	0.0002	0.0004		
Nickel, dissolved	mg/l	--	--	< 0.01	0.01	0.01		
Potassium, dissolved	mg/l	--	--	2.1	2.3	2.5		
Silicon, dissolved	mg/l	--	--	7.1	7.69	6.82		
Silver, dissolved	mg/l	--	--	< 0.00002	< 0.0001	< 0.0001		
Sodium, dissolved	mg/l	--	200 (7)	29.6	33.2	43.3		
Strontium, dissolved	mg/l	--	--	0.535	0.914	0.876		
Sulfur, dissolved	mg/l	--	--	10	17.3	19		
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005		
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005		
Vanadium, dissolved	mg/l	--	--	0.0025	0.001	0.0014		
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	0.006		
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--	0.018		
Field Measurements								
Conductivity (Field)	uS/cm	--	--	551	748	633		
Temperature (Field)	deg c	--	15	9.3	8.2	9.2		
pH (Field)	-	--	--	6.9	6.6	6.6		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31A-98 11-Jun-1998	G31A-98 20-Aug-1998 (5)	G31A-98 25-May-1999	G31A-98 02-Jun-2000 (5)	G31A-98 18-Aug-2000 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	439	--	419	--	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.63	--	1.82	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	--	<1	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	18	--	22	--	--
Chloride	mg/l	--	250	73	--	65	--	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.1	--	6.5	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	64	--	13	--	--
Nitrate as N	mg/l	10	--	<0.1	--	0.12	--	--
Nitrite as N	mg/l	1	--	<0.1	--	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.82	--	1.82	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.19	--	<0.1	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.13	--	1.19	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	7	--	<3	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	590	--	600	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	1.67	--	<0.03	--	--
Barium, dissolved	mg/l	1	--	0.12	--	0.06	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.93	--	0.96	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	<0.005	--	--
Calcium, dissolved	mg/l	--	--	6	--	2	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	--	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	0.64	--	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.005	--	<0.005	--	--
Iron, dissolved	mg/l	--	0.3	2.01	--	0.17	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31A-98 11-Jun-1998	G31A-98 20-Aug-1998 (5)	G31A-98 25-May-1999	G31A-98 02-Jun-2000 (5)	G31A-98 18-Aug-2000 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	--	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	12	--	2	--	--
Manganese, dissolved	mg/l	--	0.05	0.04	--	<0.01	--	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	<0.0002	--	--
Molybdenum, dissolved	mg/l	--	--	<0.03	--	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Potassium, dissolved	mg/l	--	--	20	--	6	--	--
Silicon, dissolved	mg/l	--	--	4.1	--	3.5	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	174	--	239	--	--
Strontium, dissolved	mg/l	--	--	0.086	--	0.068	--	--
Sulfur, dissolved	mg/l	--	--	4	--	<3	--	--
Thallium, dissolved	mg/l	--	--	<0.2	--	<0.2	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	790	--	1000	--	--
Temperature (Field)	deg c	--	15	11.5	--	9	--	--
pH (Field)	-	--	--	6.2	--	9.2	--	--

Parameter	Unit	(2) (1) ODWQS(169 /03)-Health	(4) (3) ODWQS-AO	G31A-98 02-May-2017	G31A-98 21-Sep-2017	G31A-98 01-May-2018	G31A-98 21-Aug-2018	Dup. 21-Aug-2018 G45
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	434	432	427	408	411
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.87	0.7	0.65	0.55	0.56
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	66.7	74.6	88.9	87.7	87.8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10.2	15.8	13.9	8.4	9.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	15	11	11	10	10
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	1.58	1.42	0.91	0.93	0.95
Phosphorus	mg/l	--	--	12.4	11	9.36	23.3	23.6
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	577	562	634	594	598
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.885	1.05	1.01	0.902	0.904
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.844	0.035	0.033	0.039	0.035

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31A-98 02-May-2017	G31A-98 21-Sep-2017	G31A-98 01-May-2018	G31A-98 21-Aug-2018	Dup. 21-Aug-2018 G45
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.005	0.005	0.004	0.004
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	235	266	279	252	254
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	< 0.001	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1007	913	890	852	--
Temperature (Field)	deg c	--	15	8.2	9.4	8.9	9.2	--
pH (Field)	-	--	--	8.8	9.3	9.1	9.0	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	1%				
Ammonia, unionized (Field)	mg/l	--	--	--				
Ammonia Nitrogen	mg/l	--	--	2%				
Bicarbonate	mg/l	--	--	--				
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--				
Bromide	mg/l	--	--	--				
Carbonate (CO3)	mg/l	--	--	--				
Chemical Oxygen Demand	mg/l	--	--	--				
Chloride	mg/l	--	250	0%				
Chloride, dissolved	mg/l	--	250					
Conductivity	µmho/c	--	--	--				
Dissolved Organic Carbon	mg/l	--	5	9%				
Fluoride	mg/l	1.5	--	--				
Hardness, Calcium Carbonate	mg/l	--	80-100	0%				
Nitrate as N	mg/l	10	--	--				
Nitrite as N	mg/l	1	--	--				
Nitrogen, Total Kjeldahl	mg/l	--	--	--				
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--				
Nitrogen, Organic	mg/l	--	--	--				
Phosphate	mg/l	--	--	--				
Phosphate, Ortho	mg/l	--	--	2%				
Phosphorus	mg/l	--	--	1%				
Phosphorus (dissolved reactive)	mg/l	--	--	--				
Sulphate	mg/l	--	500 (6)	--				
Sulphate, dissolved	mg/l	--	500 (6)	--				
Total Dissolved Solids	mg/l	--	500	1%				
Total Organic Carbon	mg/l	--	--	--				
Metals								
Aluminum, total	mg/l	0.1	--	--				
Aluminum, dissolved	mg/l	0.1	--	--				
Barium, dissolved	mg/l	1	--	--				
Beryllium, dissolved	mg/l	--	--	--				
Boron, dissolved	mg/l	5	--	0%				
Cadmium, dissolved	mg/l	0.005	--	--				
Calcium, dissolved	mg/l	--	--	--				
Chromium, dissolved	mg/l	0.05	--	--				
Cobalt, dissolved	mg/l	--	--	--				
Copper, dissolved	mg/l	--	1	--				
Iron, dissolved	mg/l	--	0.3	11%				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	RPD				
Lead, dissolved	mg/l	0.01	--	--				
Magnesium, dissolved	mg/l	--	--	--				
Manganese, dissolved	mg/l	--	0.05	0%				
Mercury	mg/l	--	--	--				
Mercury, dissolved	mg/l	0.001	--	--				
Molybdenum, dissolved	mg/l	--	--	--				
Nickel, dissolved	mg/l	--	--	--				
Potassium, dissolved	mg/l	--	--	--				
Silicon, dissolved	mg/l	--	--	--				
Silver, dissolved	mg/l	--	--	--				
Sodium, dissolved	mg/l	--	200 (7)	1%				
Strontium, dissolved	mg/l	--	--	--				
Sulfur, dissolved	mg/l	--	--	--				
Thallium, dissolved	mg/l	--	--	--				
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	--				
Vanadium, dissolved	mg/l	--	--	--				
Zinc, dissolved	mg/l	--	5	--				
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--				
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--				
Temperature (Field)	deg c	--	15	--				
pH (Field)	-	--	--	--				

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G36-01 28-May-2001	G36-01 08-Aug-2001	G36-01 04-Apr-2002	G36-01 07-Aug-2002	G36-01 14-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	77	67	39	52	30
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.08	0.08	0.04	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	16	20	4	14	4
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.1	2.8	2.4	2.9	1.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	159	142	44	91	49
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.88	0.5	0.48	0.74	0.48
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	0.02	0.02	0.04
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	324	240	85	167	92
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.06	0.04	<0.05	<0.02	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	42	37	11	25	13
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	0.11	0.12	0.01	0.3	0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 28-May-2001	G36-01 08-Aug-2001	G36-01 04-Apr-2002	G36-01 07-Aug-2002	G36-01 14-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	13	12	4	7	4
Manganese, dissolved	mg/l	--	0.05	2.66	2.61	0.58	1.56	0.44
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	12	13	8	9	9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	300	475	520	610	90
Temperature (Field)	deg c	--	15	9.5	12.5	5	17	7
pH (Field)	-	--	--	6.5	7.1	6.4	6.6	7.7

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G36-01 27-Aug-2003	G36-01 26-May-2004	G36-01 29-Aug-2004	G36-01 27-May-2005	G36-01 25-Aug-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	28	34	45	29	61
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.05	<0.03	<0.02	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	3	7.6	20.5	197	323
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.8	2.1	2.3	1.1	1.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	59	113.1	204	293	456
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.5	<0.1	<0.1	0.29	0.19
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	0.017	0.004	0.04	0.08
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	116	88	316	499	825
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	0.02	0.01	0.02	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	17	--	--	81	130
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.01	0.05	<0.01	<0.01	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 27-Aug-2003	G36-01 26-May-2004	G36-01 29-Aug-2004	G36-01 27-May-2005	G36-01 25-Aug-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	4	--	--	22	32
Manganese, dissolved	mg/l	--	0.05	0.326	0.451	1.01	0.36	0.82
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	10	6.4	13	18	47
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	120	98	190	767	1010
Temperature (Field)	deg c	--	15	15	8	15	8	19.3
pH (Field)	-	--	--	7.4	7.73	7.5	7.4	6.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 31-May-2006	G36-01 07-Sep-2006	G36-01 28-May-2007	G36-01 28-Aug-2007	G36-01 02-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	64	160	93	98	53
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.03	0.14	<0.02	0.08
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	272	114	29	191	60
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	2.6	7.1	4.7	4.9	3.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	477	206	70	335	67
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.16	0.2	0.29	0.21	0.24
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.04	0.02	0.06	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	904	696	281	825	252
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.01	0.02	0.02	0.03	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	120	61	18	93	17
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	0.07	<0.03	0.04

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 31-May-2006	G36-01 07-Sep-2006	G36-01 28-May-2007	G36-01 28-Aug-2007	G36-01 02-May-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	43	13	6	25	6
Manganese, dissolved	mg/l	--	0.05	0.36	0.38	0.19	1.2	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	63	136	44	123	35
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1050	1100	375	1150	310
Temperature (Field)	deg c	--	15	11	14	8.5	14.7	7.5
pH (Field)	-	--	--	6.4	6.8	8.3	7.1	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 07-Aug-2008	G36-01 14-Apr-2009 G-36-01	G36-01 14-Aug-2009 36-01	G36-01 31-May-2010 M-8	G36-01 11-Aug-2010 C-5
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	150	89	112	84	98
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	<0.05	<0.05	<0.05	0.08
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	75	53	67	26	25
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	3.8	2.8	3.5	5.3	4.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	155	94	190	190	210
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.18	0.29	0.093	0.11	0.076
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	<0.01	<0.01	0.02	<0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	484	277	425	350	414
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.03	<0.02	0.03	0.04	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	44	--	--	--	--
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.03	<0.02	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 07-Aug-2008	G36-01 14-Apr-2009 G-36-01	G36-01 14-Aug-2009 36-01	G36-01 31-May-2010 M-8	G36-01 11-Aug-2010 C-5
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.75	0.05	1.10	1.34	2.21
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	77	34.4	53.4	34.0	54.6
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	600	370	576	520	564
Temperature (Field)	deg c	--	15	16	4	15.4	9.9	17.4
pH (Field)	-	--	--	6.9	7.4	6.14	6.70	6.28

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G36-01 28-Apr-2011 R-5	G36-01 23-Aug-2011 G36-01	G36-01 04-Jun-2012 36-01	G36-01 29-Aug-2012 36-01	G36-01 23-Apr-2013 R-7
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	66	143	93	130	64
Ammonia, unionized (Field)	mg/l	--	--	--	<0.02	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	<0.05	<0.050	<0.050	0.12
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	19	32	26	37	6
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.0	10.0	5.2	5.2	3.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	55	140	130	160	66
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.23	0.08	0.11	0.10	0.15
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	0.02	0.013	<0.010	0.011
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	156	362	230	296	148
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	0.03	0.02	0.03	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	--	--	--	--	<0.02
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.02	<0.02	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 28-Apr-2011 R-5	G36-01 23-Aug-2011 G36-01	G36-01 04-Jun-2012 36-01	G36-01 29-Aug-2012 36-01	G36-01 23-Apr-2013 R-7
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.07	1.71	0.96	2.15	0.06
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	27.9	41.2	21.2	43.4	17.4
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	246	435	336	535	212
Temperature (Field)	deg c	--	15	5.2	13.9	9.6	14.4	5.5
pH (Field)	-	--	--	7.89	6.43	6.86	6.68	7.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 06-Sep-2013 36-01	G36-01 29-Nov-2013 36-01	G36-01 12-May-2014 36-01	G36-01 26-Aug-2014 36-01	G36-01 20-May-2015 36-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	110	--	100	130	94
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.062	--	0.050	0.055	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	14	--	27	15	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	8
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.0	--	7.8	5.8	5.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	100	--	140	110	80
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	<0.010	0.012	<0.010
Phosphorus	mg/l	--	--	0.092	--	0.19	0.12	<0.20 (19)
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	218	--	234	210	148
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	--	<0.02	0.03	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--					
Cobalt, dissolved	mg/l	--	--	<0.02	<0.00050	<0.00050	<0.02	<0.00050
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.02	--	<0.02	<0.02	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 06-Sep-2013 36-01	G36-01 29-Nov-2013 36-01	G36-01 12-May-2014 36-01	G36-01 26-Aug-2014 36-01	G36-01 20-May-2015 36-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.62	--	0.12	0.65	<0.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	29.9	--	20	28	8.1
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	334	300	359	366	361
Temperature (Field)	deg c	--	15	13.4	6.8	13.1	14.3	12.6
pH (Field)	-	--	--	6.00	6.63	6.96	6.93	8.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 18-Aug-2015 36-01	G36-01 16-June-2016 36-01	G36-01 22-Aug-2016 36-01	G36-01 02-May-2017 36-01	G36-01 21-Sep-2017 36-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	110	165	179	282	320
Ammonia, unionized (Field)	mg/l	--	--	--			--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	< 0.01	< 0.01	0.02	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	27.7	24.3	48.2	33
Chloride, dissolved	mg/l	--	250	7.0			--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	4.6	17.5	17.6	27.2	24.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	212	235	422	394
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	0.01	0.01	0.01	0.01
Phosphorus	mg/l	--	--	0.14	0.05	0.03	0.06	0.05
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	162	347	366	475	421
Total Organic Carbon	mg/l	--	--				--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	0.064	0.056	0.106	0.125
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--		--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.00050	0.0003	0.0003	< 0.005	< 0.005
Copper, dissolved	mg/l	--	1		--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	0.006	0.006	0.006	0.006

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 18-Aug-2015 36-01	G36-01 16-June-2016 36-01	G36-01 22-Aug-2016 36-01	G36-01 02-May-2017 36-01	G36-01 21-Sep-2017 36-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	0.525	0.843	1.13	4.01
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	9.9	32.9	31.2	35.1	44.5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	401	518	586	897	702
Temperature (Field)	deg c	--	15	13.4	8.9	11.5	6	13.3
pH (Field)	-	--	--	7.00	6.8	6.6	6.8	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 01-May-2018 36-01	G36-01 21-Aug-2018 36-01			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	231	225			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	0.02	< 0.01			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	42.4	37.8			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	26.4	15.7			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	443	254			
Nitrate as N	mg/l	10	--	--	--			
Nitrite as N	mg/l	1	--	--	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--			
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01			
Phosphorus	mg/l	--	--	0.16	0.06			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	--	--			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	507	371			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	0.069	0.058			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	0.0013	0.001			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	0.009	0.005			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G36-01 01-May-2018 36-01	G36-01 21-Aug-2018 36-01			
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	4.68	1.99			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	31.3	41.1			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur, dissolved	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenolics, Total Recoverable	mg/l	--	--	--	--			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	758	523			
Temperature (Field)	deg c	--	15	4	13.6			
pH (Field)	-	--	--	7.3	6.9			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 28-May-2001	G37-01 08-Aug-2001	G37-01 04-Apr-2002	G37-01 07-Aug-2002	G37-01 13-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	29	23	23	18	25
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.03	<0.02	0.03	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	55	68	51	54	110
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.6	0.8	1.1	0.5	0.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	111	111	98	104	123
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.77	0.27	0.28	0.37	0.45
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	<0.01	0.05	0.07
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	264	244	205	226	233
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.01	<0.05	<0.02	<0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	28	28	26	27	31
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	0.02	0.02	0.03	0.03	<0.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 28-May-2001	G37-01 08-Aug-2001	G37-01 04-Apr-2002	G37-01 07-Aug-2002	G37-01 13-May-2003
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	10	10	8	9	11
Manganese, dissolved	mg/l	--	0.05	0.08	0.02	0.01	0.009	0.007
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	14	16	12	12	15
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	250	465	510	550	490
Temperature (Field)	deg c	--	15	9.5	11	5	16	7
pH (Field)	-	--	--	6.2	7.2	6.4	6.6	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 27-Aug-2003	G37-01 26-May-2004	G37-01 29-Aug-2004	G37-01 27-May-2005	G37-01 25-Aug-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	21	11	11	18	15
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.03	<0.03	<0.02	0.04
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	75	73.1	72.9	104	145
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	0.9	1.4	1.2	<0.5	0.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	130	121.5	123.7	177	215
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.58	<0.1	<0.1	0.24	0.15
Phosphorus (dissolved reactive)	mg/l	--	--	0.07	<0.003	0.002	0.06	0.11
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	257	332	254	301	388
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.05	<0.01	<0.01	<0.01	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	34	--	--	46	58
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.01	<0.01	0.01	<0.01	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 27-Aug-2003	G37-01 26-May-2004	G37-01 29-Aug-2004	G37-01 27-May-2005	G37-01 25-Aug-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	11	--	--	15	17
Manganese, dissolved	mg/l	--	0.05	0.012	0.013	0.016	0.02	0.02
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	20	15.5	15.3	17	20
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	460	281	510	463	165
Temperature (Field)	deg c	--	15	13	8.3	15	8	17.5
pH (Field)	-	--	--	6.8	7.02	6.9	6.8	6.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 31-May-2006	G37-01 07-Sep-2006	G37-01 28-May-2007	G37-01 28-Aug-2007	G37-01 02-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	15	13	15	32	13
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	0.04	0.05	<0.02	<0.02
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	197	275	183	612	170
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	<0.5	1	1	1.2	1.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	291	408	287	836	268
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.3	0.17	0.15	0.26	0.22
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.05	0.07	0.09	<0.01
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	529	728	529	42	495
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.01	<0.01	0.01	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	77	109	77	231	71
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.03	<0.03	0.04	<0.03	<0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 31-May-2006	G37-01 07-Sep-2006	G37-01 28-May-2007	G37-01 28-Aug-2007	G37-01 02-May-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	24	33	23	63	22
Manganese, dissolved	mg/l	--	0.05	0.02	0.04	0.03	0.09	0.03
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	19	24	22	42	26
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	550	510	750	1575	500
Temperature (Field)	deg c	--	15	11	14	9	12.7	8.5
pH (Field)	-	--	--	6	6.8	7.7	6.8	5.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 07-Aug-2008	G37-01 15-Apr-2009 G-37-01	G37-01 14-Aug-2009 37-01	G37-01 15-Sep-2009 G-2	G37-01 31-May-2010 M-9
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	12	24	36	--	14
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.02	<0.05	<0.05	--	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	250	80	150	140	220
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.2	1.3	0.8	--	0.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	308	170	230	--	310
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.07	0.091	0.064	--	0.06
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	<0.01	<0.01	--	<0.01
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	644	315	465	425	630
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.01	<0.02	<0.02	--	0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	82	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.03	<0.02	<0.02	--	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 07-Aug-2008	G37-01 15-Apr-2009 G-37-01	G37-01 14-Aug-2009 37-01	G37-01 15-Sep-2009 G-2	G37-01 31-May-2010 M-9
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	25	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.02	0.03	--	0.04
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	32	25.0	37.1	--	47.5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	800	490	651	800	966
Temperature (Field)	deg c	--	15	14	6	13.5	11.0	11.9
pH (Field)	-	--	--	5.8	7.1	5.46	7.3	6.26

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 24-Jun-2010 37-01	G37-01 11-Aug-2010 C-6	G37-01 09-Sep-2010 37-01	G37-01 28-Apr-2011 R-4	G37-01 27-May-2011 37-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	15	--	9	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	<0.05	--	<0.05	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	190	190	210	610	270
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	0.9	--	0.9	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	240	--	770	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.038	--	0.070	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	--	<0.01	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	520	514	564	1280	722
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	<0.02	--	<0.02	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	--	<0.02	--	<0.02	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 24-Jun-2010 37-01	G37-01 11-Aug-2010 C-6	G37-01 09-Sep-2010 37-01	G37-01 28-Apr-2011 R-4	G37-01 27-May-2011 37-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	0.03	--	0.11	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	63.0	--	88.4	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	770	--	1889	--
Temperature (Field)	deg c	--	15	--	16.7	--	7.5	--
pH (Field)	-	--	--	--	6.32	--	6.12	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 23-Aug-2011 G37-01	G37-01 07-Sep-2011 37-01	G37-01 04-Jun-2012 37-01	G37-01 04-Jul-2012 37-01	G37-01 29-Aug-2012 37-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	10	--	12	--	14
Ammonia, unionized (Field)	mg/l	--	--	<0.02	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.3 (19)	--	<0.050	--	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	500	90	190	240	310
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.0	--	0.95	--	0.90
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	620	--	220	--	300
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.055	--	0.067	--	0.066
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	--	<0.010	--	<0.010
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	1300	518	650	714	918
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	--	0.03	--	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.02	--	<0.02	--	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 23-Aug-2011 G37-01	G37-01 07-Sep-2011 37-01	G37-01 04-Jun-2012 37-01	G37-01 04-Jul-2012 37-01	G37-01 29-Aug-2012 37-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.09	--	0.03	--	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	121	62.2	84.9	--	118
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1821	--	815	--	1310
Temperature (Field)	deg c	--	15	12.6	--	9.4	--	13.5
pH (Field)	-	--	--	5.13	--	5.46	--	5.67

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 05-Oct-2012 37-01	G37-01 23-Apr-2013 R-8	G37-01 28-May-2013 37-01	G37-01 06-Sep-2013 37-01	G37-01 15-Oct-2013 37-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	21	--	23	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.050	--	<0.050	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	300	220	240	170	190
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	1.1	--	1.5	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	240	--	140	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	<0.010	--
Phosphorus	mg/l	--	--	--	0.10	--	0.10	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.010	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	832	662	726	574	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.02	--	<0.02	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	--	<0.02	--	<0.02	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 05-Oct-2012 37-01	G37-01 23-Apr-2013 R-8	G37-01 28-May-2013 37-01	G37-01 06-Sep-2013 37-01	G37-01 15-Oct-2013 37-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	0.04	--	0.02	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	122	100	--	92.1	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	964	--	7.63	834
Temperature (Field)	deg c	--	15	--	8.4	--	12.7	12.5
pH (Field)	-	--	--	--	6.97	--	5.48	6.84

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 12-May-2014 37-01	G37-01 06-Jun-2014 MW 37	G37-01 26-Aug-2014 37-01	G37-01 23-Sep-2014 G-37	G37-01 20-May-2015 37
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	20	--	15	--	14
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	--	0.058	--	0.12
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	200	200	170	160	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	300
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	1.3	--	0.93	--	1.0
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	190	--	120	--	220
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	<0.010	--	<0.010
Phosphorus	mg/l	--	--	0.083	--	0.14	--	0.093
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	610	694	482	506	894
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	<0.02	--	<0.02	--	<0.02
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.00050	--	<0.02	--	<0.00050
Copper, dissolved	mg/l	--	1					
Iron, dissolved	mg/l	--	0.3	<0.02	--	<0.02	--	<0.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 12-May-2014 37-01	G37-01 06-Jun-2014 MW 37	G37-01 26-Aug-2014 37-01	G37-01 23-Sep-2014 G-37	G37-01 20-May-2015 37
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	--	0.02	--	0.05
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	94	--	95	--	120
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--					
Field Measurements								
Conductivity (Field)	uS/cm	--	--	857	--	783	--	901
Temperature (Field)	deg c	--	15	13.1	--	12.8	--	12.1
pH (Field)	-	--	--	6.40	--	6.82	--	6.51

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 17-Jun-2015 37	G37-01 18-Aug-2015 37-01	G37-01 30-Sep-2015 G37-01	G37-01 16-June-2016 37-01	G37-01 22-Aug-2016 G37-01
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	10	--	22	25
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	<0.050	--	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	271	398
Chloride, dissolved	mg/l	--	250	280	300	350	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	0.95	--	0.5	0.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	260	--	210	304
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	<0.010	--	< 0.01	< 0.01
Phosphorus	mg/l	--	--	--	0.097	--	0.18	0.08
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	--	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	852	980	936	775	1057
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	<0.02	--	0.01	0.013
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	<0.00050	--	0.0003	0.0004
Copper, dissolved	mg/l	--	1				--	--
Iron, dissolved	mg/l	--	0.3	--	<0.02	--	< 0.005	< 0.005

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 17-Jun-2015 37	G37-01 18-Aug-2015 37-01	G37-01 30-Sep-2015 G37-01	G37-01 16-June-2016 37-01	G37-01 22-Aug-2016 G37-01
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	0.05	--	0.043	0.059
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	120	160	160	138	178
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--				--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	909	1010	904	1124	1625
Temperature (Field)	deg c	--	15	12.6	12.9	11.9	9.7	9.9
pH (Field)	-	--	--	6.60	6.61	6.75	6.5	5.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 02-May-2017 37-01	G37-01 20-Sept-2017 37-01	G37-01 01-May-2018 37-01	G37-01 21-Aug-2018 37-01	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	30	25	32	30	
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	
Bicarbonate	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3	< 3	< 3	
Bromide	mg/l	--	--	--	--	--	--	
Carbonate (CO3)	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	< 5	6	69	11	
Chloride	mg/l	--	250	212	176	138	335	
Chloride, dissolved	mg/l	--	250	--	--	--	--	
Conductivity	µmho/c	--	--	--	798	667	1220	
Dissolved Organic Carbon	mg/l	--	5	0.4	0.8	1.8	0.6	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	80-100	188	138	103	182	
Nitrate as N	mg/l	10	--	6.86	6.83	4.94	4.2	
Nitrite as N	mg/l	1	--	0.1	< 0.05	< 0.05	< 0.05	
Nitrogen, Total Kjeldahl	mg/l	--	--	0.24	0.2	0.3	0.3	
Nitrogen, Nitrate-Nitrite	mg/l	--	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphate, Ortho	mg/l	--	--	< 0.01	0.01	0.03	< 0.01	
Phosphorus	mg/l	--	--	0.07	0.15	0.19	0.07	
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	--	55	40	48	41	
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	469	458	343	623	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	
Aluminum, dissolved	mg/l	0.1	--	0.02	0.03	0.03	0.04	
Barium, dissolved	mg/l	1	--	0.103	0.083	0.057	0.106	
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001	
Boron, dissolved	mg/l	5	--	0.009	0.01	0.009	0.008	
Cadmium, dissolved	mg/l	0.005	--	0.000101	0.000078	0.000057	0.000137	
Calcium, dissolved	mg/l	--	--	46.9	34.6	26.3	45.2	
Chromium, dissolved	mg/l	0.05	--	0.003	0.057	0.004	0.001	
Cobalt, dissolved	mg/l	--	--	< 0.005	< 0.005	0.0001	0.0003	
Copper, dissolved	mg/l	--	1	< 0.002	< 0.002	0.0007	0.0009	
Iron, dissolved	mg/l	--	0.3	< 0.005	0.01	0.005	< 0.005	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G37-01 02-May-2017 37-01	G37-01 20-Sept-2017 37-01	G37-01 01-May-2018 37-01	G37-01 21-Aug-2018 37-01	
Lead, dissolved	mg/l	0.01	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002	
Magnesium, dissolved	mg/l	--	--	17.3	12.6	9.14	16.7	
Manganese, dissolved	mg/l	--	0.05	0.035	0.029	0.019	0.033	
Mercury	mg/l	--	--	--	--	--	--	
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002	
Molybdenum, dissolved	mg/l	--	--	0.0006	< 0.0001	< 0.0001	< 0.0001	
Nickel, dissolved	mg/l	--	--	< 0.01	0.04	< 0.01	< 0.01	
Potassium, dissolved	mg/l	--	--	0.9	1.1	0.7	1.1	
Silicon, dissolved	mg/l	--	--	5.82	6.25	5.3	4.24	
Silver, dissolved	mg/l	--	--	0.00004	< 0.00002	< 0.0001	< 0.0001	
Sodium, dissolved	mg/l	--	200 (7)	119	124	101	166	
Strontium, dissolved	mg/l	--	--	0.59	0.429	0.322	0.545	
Sulfur, dissolved	mg/l	--	--	20.3	16.2	14.1	13	
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005	
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005	< 0.005	< 0.005	
Vanadium, dissolved	mg/l	--	--	0.0024	< 0.0001	< 0.0001	0.0001	
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005	< 0.005	0.008	
Phenols				--				
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	< 0.001	--	0.002	
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1066	751	588	897	
Temperature (Field)	deg c	--	15	7.8	11.0	6.5	10.0	
pH (Field)	-	--	--	6.1	5.9	7.1	7.1	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 27-Aug-2003	G38-03 26-May-2004	G38-03 29-Aug-2004	G38-03 27-May-2005	G38-03 25-Aug-2005
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	738	226	502	291	551
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.08	0.06	0.13	0.03	0.12
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	45	25.5	19.8	24	35
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	36.7	12.1	1.9	8.2	21.8
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	711	336.9	472	355	517
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	3.01	0.1	<0.1	0.6	0.41
Phosphorus (dissolved reactive)	mg/l	--	--	0.1	0.009	0.006	0.07	0.18
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	956	334	658	431	728
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.11	0.06	0.1	0.06	0.14
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	217	--	--	111	161
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.44	0.19	0.21	0.07	0.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 27-Aug-2003	G38-03 26-May-2004	G38-03 29-Aug-2004	G38-03 27-May-2005	G38-03 25-Aug-2005
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	41	--	--	19	28
Manganese, dissolved	mg/l	--	0.05	10.4	2.5	7.76	1.38	7.52
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	63	27.5	47.3	29	55
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	140	411	180	663	600
Temperature (Field)	deg c	--	15	12	8.7	14	9	19.5
pH (Field)	-	--	--	7.1	6.99	7	7.2	6.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 31-May-2006	G38-03 07-Sep-2006	G38-03 28-May-2007	G38-03 28-Aug-2007	G38-03 02-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	490	347	569	570	345
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.05	0.12	0.11	0.09	0.03
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	31	12	22	31	8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	14.2	12.4	20	23.5	7.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	448	282	518	549	348
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.33	0.17	0.73	0.35	0.6
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.07	0.1	0.17	0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	644	458	702	748	441
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	0.05	0.11	0.09	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	143	90	168	182	118
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.12	<0.03	0.6	1.61	0.36

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 31-May-2006	G38-03 07-Sep-2006	G38-03 28-May-2007	G38-03 28-Aug-2007	G38-03 02-May-2008
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	22	14	24	23	13
Manganese, dissolved	mg/l	--	0.05	4.98	4.72	9.76	12.6	1.41
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	40	34	33	34	14
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	800	660	850	1025	445
Temperature (Field)	deg c	--	15	13	16	9.9	15	7
pH (Field)	-	--	--	6.7	7	7.2	7.2	6.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 07-Aug-2008	G38-03 14-Apr-2009 G-38-08	G38-03 13-Aug-2009 38-03	G38-03 31-May-2010 M-10	G38-03 11-Aug-2010 C-4
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	421	228	250	304	284
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.05	<0.05	0.06	0.09	0.08
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	17	150	16	14	7
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	15.6	6.9	10.4	11.9	9.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	326	390	230	290	320
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.3	0.55	0.29	0.28	0.086
Phosphorus (dissolved reactive)	mg/l	--	--	0.09	0.02	0.04	0.02	0.01
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)					
Total Dissolved Solids	mg/l	--	500	536	600	362	380	390
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.1	0.04	0.03	0.04	0.05
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	106	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.67	0.36	<0.02	0.28	0.03

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 07-Aug-2008	G38-03 14-Apr-2009 G-38-08	G38-03 13-Aug-2009 38-03	G38-03 31-May-2010 M-10	G38-03 11-Aug-2010 C-4
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	15	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	6.61	0.90	2.79	3.69	3.64
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	32	29.9	18.4	21.7	16.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	825	800	578	551	577
Temperature (Field)	deg c	--	15	17	4	14.7	10.1	16.2
pH (Field)	-	--	--	6.9	7.4	6.75	6.85	6.25

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 29-Apr-2011 R-13	G38-03 23-Aug-2011 G38-03	G38-03 04-Jun-2012 38-03	G38-03 29-Aug-2012 38-03	G38-03 23-Apr-2013 R-5
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	175	424	310	460	290
Ammonia, unionized (Field)	mg/l	--	--	--	<0.02	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.05	0.05	<0.050	0.16	0.10
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	27	43	43	85	45
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	5.7	10.2	8.1	15	9.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	220	500	370	550	380
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.5	0.27	0.34	0.29	0.17
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	0.01	0.012	<0.010	<0.010
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)			--	--	--
Total Dissolved Solids	mg/l	--	500	274	654	478	780	462
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.02	0.07	0.04	0.06	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	<0.02
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	<0.02	0.05	<0.02	5.98	2.10

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 29-Apr-2011 R-13	G38-03 23-Aug-2011 G38-03	G38-03 04-Jun-2012 38-03	G38-03 29-Aug-2012 38-03	G38-03 23-Apr-2013 R-5
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	4.64	0.85	8.87	1.38
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	11.2	17.2	18.7	25.2	18.6
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	467	838	705	1161	949
Temperature (Field)	deg c	--	15	5.9	15.8	10.1	13.5	4.9
pH (Field)	-	--	--	8.05	6.61	6.87	6.63	6.96

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 06-Sep-2013 38-03	G38-03 29-Nov-2013 38-03	G38-03 12-May-2014 38-03	G38-03 26-Aug-2014 38-03	G38-03 20-May-2015 38-03
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	350	--	310	370	300
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	--	0.090	0.13	0.080
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	22	--	29	25	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	29
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	13	--	7.0	13	8.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	340	--	220	350	380
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.040	--	<0.010	0.065	<0.010
Phosphorus	mg/l	--	--	0.19	--	0.30	0.60	0.54
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	464	--	376	428	544
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.04	--	0.03	0.05	0.04
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.02	0.0030	<0.00050	<0.02	0.0044
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.03	--	0.38	1.6	9.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 06-Sep-2013 38-03	G38-03 29-Nov-2013 38-03	G38-03 12-May-2014 38-03	G38-03 26-Aug-2014 38-03	G38-03 20-May-2015 38-03
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	1.59	--	0.31	3.0	2.8
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	28.6	--	20	27	27
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	700	856	603	795	608
Temperature (Field)	deg c	--	15	14.0	3.7	12.1	14.2	11.9
pH (Field)	-	--	--	6.72	7.03	6.96	7.59	7.04

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 18-Aug-2015 38-03	G38-03 16-June-2016 38-03	G38-03 22-Aug-2016 38-03	G38-03 02-May-2017 38-03	G38-03 21-Sep-2017 38-03
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	280	383	476	233	453
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.18	0.15	0.19	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	23.9	30.6	16.9	20.1
Chloride, dissolved	mg/l	--	250	28	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	10	9.3	13.3	7.6	17.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	380	436	576	304	491
Nitrate as N	mg/l	10		--	--	--	--	--
Nitrite as N	mg/l	1		--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--		--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--	--	--	--
Nitrogen, Organic	mg/l	--		--	--	--	--	--
Phosphate	mg/l	--		--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.033	< 0.01	0.01	0.01	0.01
Phosphorus	mg/l	--	--	0.37	1.55	0.81	0.56	0.79
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	494	564	714	362	509
Total Organic Carbon	mg/l			--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.05	0.057	0.11	0.052	0.148
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0025	0.0057	0.0074	0.006	0.006
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	8.6	35.7	48.4	29.4	46.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 18-Aug-2015 38-03	G38-03 16-June-2016 38-03	G38-03 22-Aug-2016 38-03	G38-03 02-May-2017 38-03	G38-03 21-Sep-2017 38-03
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	3.1	5.7	7.23	3.63	5.9
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	23	30	35.8	21.6	35.9
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	701	876	1132	626	790
Temperature (Field)	deg c	--	15	12.8	9.8	12.3	6.3	13.2
pH (Field)	-	--	--	7.01	6.8	6.6	6.6	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 01-May-2018 38-03	G38-03 21-Aug-2018 38-03	G38-03	G38-03	G38-03
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	310	355			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	0.03	0.27			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	18.2	17.9			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	9.3	11.9			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	407	387			
Nitrate as N	mg/l	10		--	--			
Nitrite as N	mg/l	1		--	--			
Nitrogen, Total Kjeldahl	mg/l	--		--	--			
Nitrogen, Nitrate-Nitrite	mg/l	--		--	--			
Nitrogen, Organic	mg/l	--		--	--			
Phosphate	mg/l	--		--	--			
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01			
Phosphorus	mg/l	--	--	0.6	0.66			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	--	--			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	507	470			
Total Organic Carbon	mg/l			--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	0.091	0.112			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	0.0051	0.0055			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	45.1	36.3			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G38-03 01-May-2018 38-03	G38-03 21-Aug-2018 38-03	G38-03	G38-03	G38-03
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	4.95	3.99			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	25.1	24.8			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur, dissolved	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	--			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	685	613			
Temperature (Field)	deg c	--	15	5	13.1			
pH (Field)	-	--	--	6.6	6.6			

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G39-07 29-May-2007	G39-07 28-Aug-2007	G39-07 30-Apr-2008	G39-07 06-Aug-2008	G39-07 14-Apr-2009 G-39-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	292	264	150	208	160
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	1.38	2.64	0.59	1.59	0.35
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	5	<1	3	<2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	50	51	22	47	43
Chloride	mg/l	--	250	69	65	34	65	39
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	23.7	27	11.3	20.6	9.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	275	230	148	221	160
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	7.09	4.31	1.16	2.46	2.2
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.6	1.07	0.21	0.07	0.22
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	0.05	0.02	0.02	<0.01
Sulphate	mg/l	--	500 [6]	3	6	28	8	33
Sulphate, dissolved	mg/l	--	500 [6]	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	483	475	289	320	295
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.09	0.14	0.04	0.03	0.023
Barium, dissolved	mg/l	1	--	0.06	0.06	0.02	0.04	0.018
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.0005
Boron, dissolved	mg/l	5	--	0.67	0.74	0.52	0.63	0.46
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	64	59	36	54	36
Chromium, dissolved	mg/l	0.05	--	0.002	0.005	0.003	0.001	<0.005
Cobalt, dissolved	mg/l	--	--	0.0012	0.0018	0.0005	0.0005	<0.0005
Copper, dissolved	mg/l	--	1	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, dissolved	mg/l	--	0.3	0.09	0.15	0.07	0.13	0.1

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 29-May-2007	G39-07 28-Aug-2007	G39-07 30-Apr-2008	G39-07 06-Aug-2008	G39-07 14-Apr-2009 G-39-07
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.001	<0.0005
Magnesium, dissolved	mg/l	--	--	28	20	14	21	17
Manganese, dissolved	mg/l	--	0.05	0.41	0.44	0.19	0.31	0.19
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0015 (21)
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	0.005	0.006	<0.005	<0.005	0.002
Potassium, dissolved	mg/l	--	--	11	11	5	8	4.7
Silicon, dissolved	mg/l	--	--	2.8	3.4	1.8	2.8	1.3
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	51	46	34	48	36
Strontium, dissolved	mg/l	--	--	0.326	0.314	0.128	0.241	0.16
Sulfur, dissolved	mg/l	--	--	1	2	9	3	9.6
Thallium, dissolved	mg/l	--	--	0.0004	<0.0001	<0.0001	<0.0001	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	0.01	<0.01	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	0.006	0.014	0.005	0.008	0.002
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	<0.001	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	440	600	340	550	445
Temperature (Field)	deg c	--	15	14.3	15.2	5.5	21	4
pH (Field)	-	--	--	7.7	7.8	7.2	7.2	7.5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 17-Aug-2009 39-07	G39-07 15-Sep-2009 G-1	G39-07 27-May-2010 T-4	G39-07 24-Jun-2010 39-07	G39-07 12-Aug-2010 C-15
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	192	--	265	--	241
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.92	--	0.55	--	0.64
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	59	--	--	--	--
Chloride	mg/l	--	250	85	--	92	--	100
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21.7	19.9	19.1	19.2	18.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210	--	260	--	210
Nitrate as N	mg/l	10	--	0.8	--	--	--	--
Nitrite as N	mg/l	1	--	<0.01	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	2.0	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.16	--	1.1	--	1.2
Phosphorus (dissolved reactive)	mg/l	--	--	0.01	--	0.03	--	<0.01
Sulphate	mg/l	--	500 (6)	25	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	435	440	534	520	480
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.036	--	--	--	--
Barium, dissolved	mg/l	1	--	0.033	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.0005	--	--	--	--
Boron, dissolved	mg/l	5	--	0.72	--	0.74	--	0.74
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	--	--	--
Calcium, dissolved	mg/l	--	--	50	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	<0.005	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.0005	--	--	--	--
Copper, dissolved	mg/l	--	1	<0.001	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.2	--	1.67	1.3	2.37

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 17-Aug-2009 39-07	G39-07 15-Sep-2009 G-1	G39-07 27-May-2010 T-4	G39-07 24-Jun-2010 39-07	G39-07 12-Aug-2010 C-15
Lead, dissolved	mg/l	0.01	--	<0.0005	--	--	--	--
Magnesium, dissolved	mg/l	--	--	21	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.24	--	0.35	0.37	0.31
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.001	--	--	--	--
Nickel, dissolved	mg/l	--	--	0.004	--	--	--	--
Potassium, dissolved	mg/l	--	--	8.3	--	--	--	--
Silicon, dissolved	mg/l	--	--	1.8	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.0001	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	60	--	71.9	--	72.7
Strontium, dissolved	mg/l	--	--	0.26	--	--	--	--
Sulfur, dissolved	mg/l	--	--	8.1	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.00005	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	--	--	--
Vanadium, dissolved	mg/l	--	--	0.004	--	--	--	--
Zinc, dissolved	mg/l	--	5	<0.005	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	640	700	859	--	699
Temperature (Field)	deg c	--	15	23.3	12.5	17.8	--	21.6
pH (Field)	-	--	--	6.62	7.5	7.37	--	7.02

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 09-Sep-2010 39-07	G39-07 29-Apr-2011 R-8	G39-07 27-May-2011 39-07	G39-07 24-Aug-2011 G 39-07	G39-07 05-Jun-2012 39-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	252	--	221	270
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	<0.02	--
Ammonia Nitrogen	mg/l	--	--	--	0.65	--	1.2	0.24
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	78	--	87	89
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	18.1	14.0	15.7	19.6	19
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	190	--	200	280
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	1.8	--	0.5	0.30
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	--	<0.01	<0.010
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	470	478	478	426	512
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	0.60	--	0.68	0.82
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.38	3.12	1.62	0.72	0.62

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 09-Sep-2010 39-07	G39-07 29-Apr-2011 R-8	G39-07 27-May-2011 39-07	G39-07 24-Aug-2011 G 39-07	G39-07 05-Jun-2012 39-07
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.29	0.28	0.29	0.21	0.31
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	59.0	--	56.8	69.2
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	679	--	626	772
Temperature (Field)	deg c	--	15	--	8.8	--	21.0	13.7
pH (Field)	-	--	--	--	7.01	--	7.27	7.28

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 29-Aug-2012 39-07	G39-07 23-Apr-2013 R-15	G39-07 06-Sep-2013 G39-07	G39-07 12-May-2014 (15) G39-07	G39-07 27-Aug-2014 39-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	200	150	230	--	300
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.72	0.47	1.1	--	1.8
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	100	42	100	--	100
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21	11	23	--	21
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210	130	220	--	270
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	<0.010	--	<0.010
Phosphorus	mg/l	--	--	0.33	2.2	0.63	--	1.1
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	<0.010	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	484	368	522	--	548
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.81	0.60	0.66	--	0.71
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.57	1.41	0.58	--	3.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 29-Aug-2012 39-07	G39-07 23-Apr-2013 R-15	G39-07 06-Sep-2013 G39-07	G39-07 12-May-2014 (15) G39-07	G39-07 27-Aug-2014 39-07
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.25	0.17	0.28	--	0.48
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	67.2	46.8	66.6	--	72
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	746	463	717	--	860
Temperature (Field)	deg c	--	15	20.9	7.8	19.1	--	20.1
pH (Field)	-	--	--	7.3	7.98	7.19	--	7.78

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 20-May-2015	G39-07 19-Aug-2015	G39-07 17-June-2016	G39-07 22-Aug-2016	G39-07 02-May-2017
				39	39-07	39-07	39-07	39-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	270	280	362	282	144
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.77	1.2	0.23	1.73	0.42
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	98.3	108	17.8
Chloride, dissolved	mg/l	--	250	98	100	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	16	19	15.6	15.4	13.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	250	260	308	293	105
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	<0.010	0.01	0.01	0.04
Phosphorus	mg/l	--	--	1.0	0.65	3.68	0.34	0.86
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	548	508	624	651	202
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.97	0.93	0.786	1.42	0.711
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	0.0004	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	3.6	3.1	0.763	0.401	0.53

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 20-May-2015	G39-07 19-Aug-2015	G39-07 17-June-2016	G39-07 22-Aug-2016	G39-07 02-May-2017
				39	39-07	39-07	39-07	39-07
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.63	0.54	0.397	0.396	0.162
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	77	81	81.9	92.9	40.5
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	541	509	877	1036	392
Temperature (Field)	deg c	--	15	9.9	10.6	13.5	18.1	8.6
pH (Field)	-	--	--	7.31	7.38	7.3	7.5	7.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 21-Sep-2017 39-07	G39-07 01-May-2018 39-07	G39-07 21-Aug-2018 39-07		
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	285	205	334		
Ammonia, unionized (Field)	mg/l	--	--	--	--	--		
Ammonia Nitrogen	mg/l	--	--	0.35	0.32	1.9		
Bicarbonate	mg/l	--	--	--	--	--		
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--		
Bromide	mg/l	--	--	--	--	--		
Carbonate (CO3)	mg/l	--	--	--	--	--		
Chemical Oxygen Demand	mg/l	--	--	--	--	--		
Chloride	mg/l	--	250	74.1	48.8	93.4		
Chloride, dissolved	mg/l	--	250	--	--	--		
Conductivity	µmho/c	--	--	--	--	--		
Dissolved Organic Carbon	mg/l	--	5	18.2	13.8	21		
Fluoride	mg/l	1.5	--	--	--	--		
Hardness, Calcium Carbonate	mg/l	--	80-100	255	195	272		
Nitrate as N	mg/l	10	--	--	--	--		
Nitrite as N	mg/l	1	--	--	--	--		
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--		
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--		
Nitrogen, Organic	mg/l	--	--	--	--	--		
Phosphate	mg/l	--	--	--	--	--		
Phosphate, Ortho	mg/l	--	--	0.02	< 0.01	< 0.01		
Phosphorus	mg/l	--	--	0.57	0.32	0.73		
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--		
Sulphate	mg/l	--	500 (6)	--	--	--		
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--		
Total Dissolved Solids	mg/l	--	500	409	319	493		
Total Organic Carbon	mg/l	--	--	--	--	--		
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--		
Aluminum, dissolved	mg/l	0.1	--	--	--	--		
Barium, dissolved	mg/l	1	--	--	--	--		
Beryllium, dissolved	mg/l	--	--	--	--	--		
Boron, dissolved	mg/l	5	--	0.778	0.721	0.973		
Cadmium, dissolved	mg/l	0.005	--	--	--	--		
Calcium, dissolved	mg/l	--	--	--	--	--		
Chromium, dissolved	mg/l	0.05	--	--	--	--		
Cobalt, dissolved	mg/l	--	--	--	--	--		
Copper, dissolved	mg/l	--	1	--	--	--		
Iron, dissolved	mg/l	--	0.3	3.83	0.325	4.13		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G39-07 21-Sep-2017 39-07	G39-07 01-May-2018 39-07	G39-07 21-Aug-2018 39-07		
Lead, dissolved	mg/l	0.01	--	--	--	--		
Magnesium, dissolved	mg/l	--	--	--	--	--		
Manganese, dissolved	mg/l	--	0.05	0.472	0.222	0.41		
Mercury	mg/l	--	--	--	--	--		
Mercury, dissolved	mg/l	0.001	--	--	--	--		
Molybdenum, dissolved	mg/l	--	--	--	--	--		
Nickel, dissolved	mg/l	--	--	--	--	--		
Potassium, dissolved	mg/l	--	--	--	--	--		
Silicon, dissolved	mg/l	--	--	--	--	--		
Silver, dissolved	mg/l	--	--	--	--	--		
Sodium, dissolved	mg/l	--	200 (7)	78.5	64.3	77.4		
Strontium, dissolved	mg/l	--	--	--	--	--		
Sulfur, dissolved	mg/l	--	--	--	--	--		
Thallium, dissolved	mg/l	--	--	--	--	--		
Tin, dissolved	mg/l	--	--	--	--	--		
Titanium, dissolved	mg/l	--	--	--	--	--		
Vanadium, dissolved	mg/l	--	--	--	--	--		
Zinc, dissolved	mg/l	--	5	--	--	--		
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--		
Field Measurements								
Conductivity (Field)	uS/cm	--	--	670	467	678		
Temperature (Field)	deg c	--	15	18	5.4	20.7		
pH (Field)	-	--	--	7.2	7.3	6.9		

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 29-May-2007	G40-07 28-Aug-2007	G40-07 30-Apr-2008	G40-07 06-Aug-2008	G40-07 14-Apr-2009 G-40-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	148	209	131	197	147
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.09	0.11	0.12	0.06	<0.05
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	2	2	<1	1	<2
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	28	33	32	35	43
Chloride	mg/l	--	250	53	70	51	72	43
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	16.7	18.1	12.6	16.4	15.0
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	160	204	174	195	170
Nitrate as N	mg/l	10	--	<0.1	0.19	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.01
Nitrogen, Total Kjeldahl	mg/l	--	--	1.15	1.36	0.77	0.93	1.9
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	<0.1
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	1.08	0.85	0.15	0.1	0.096
Phosphorus (dissolved reactive)	mg/l	--	--	0.03	0.03	0.02	0.01	<0.01
Sulphate	mg/l	--	500 (6)	9	4	27	10	23
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	298	416	301	406	300
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.15	0.05	0.04	0.04	0.047
Barium, dissolved	mg/l	1	--	0.02	0.04	0.02	0.04	0.024
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	<0.0005
Boron, dissolved	mg/l	5	--	0.27	0.51	0.34	0.55	0.40
Cadmium, dissolved	mg/l	0.005	--	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium, dissolved	mg/l	--	--	36	47	40	45	38
Chromium, dissolved	mg/l	0.05	--	0.002	0.004	0.004	0.002	<0.005
Cobalt, dissolved	mg/l	--	--	0.005	0.0025	0.0013	0.0016	0.0012
Copper, dissolved	mg/l	--	1	0.004	<0.001	0.002	<0.001	0.003
Iron, dissolved	mg/l	--	0.3	0.19	2.43	0.58	0.83	0.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 29-May-2007	G40-07 28-Aug-2007	G40-07 30-Apr-2008	G40-07 06-Aug-2008	G40-07 14-Apr-2009 G-40-07
Lead, dissolved	mg/l	0.01	--	<0.001	<0.001	<0.001	<0.001	<0.0005
Magnesium, dissolved	mg/l	--	--	17	21	18	20	18
Manganese, dissolved	mg/l	--	0.05	0.18	0.25	0.14	0.16	0.13
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.005	<0.005	<0.001
Nickel, dissolved	mg/l	--	--	0.01	0.008	<0.005	0.007	0.004
Potassium, dissolved	mg/l	--	--	3	4	2	4	2.5
Silicon, dissolved	mg/l	--	--	4.2	5.5	4.1	4.5	4.0
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	32	42	34	48	37
Strontium, dissolved	mg/l	--	--	0.195	0.287	0.219	0.22	0.20
Sulfur, dissolved	mg/l	--	--	3	1.3	9	3	7.2
Thallium, dissolved	mg/l	--	--	0.0004	<0.0001	<0.0001	<0.0001	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.005
Vanadium, dissolved	mg/l	--	--	0.003	0.011	0.005	0.007	0.002
Zinc, dissolved	mg/l	--	5	0.03	<0.01	<0.01	<0.01	<0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	0.002	<0.001	<0.001	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	260	300	360	490	440
Temperature (Field)	deg c	--	15	10.1	12.7	3	18	3
pH (Field)	-	--	--	8	7.8	6.7	6.9	7.8

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 17-Aug-2009 40-07	G40-07 27-May-2010 T-5	G40-07 24-Jun-2010 40-07	G40-07 12-Aug-2010 C-14	G40-07 09-Sep-2010 40-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	229	208	--	231	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.09	<0.05	--	0.14	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	45	--	--	--	--
Chloride	mg/l	--	250	85	90	--	100	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	18.5	13.6	16.0	16.5	16.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	220	240	--	240	--
Nitrate as N	mg/l	10	--	<0.1	--	--	--	--
Nitrite as N	mg/l	1	--	<0.01	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.3	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.077	0.09	--	0.12	--
Phosphorus (dissolved reactive)	mg/l	--	--	<0.05 (22)	0.01	--	0.01	--
Sulphate	mg/l	--	500 (6)	<5 (22)	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	445	460	480	494	484
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.028	--	--	--	--
Barium, dissolved	mg/l	1	--	0.037	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.0005	--	--	--	--
Boron, dissolved	mg/l	5	--	0.69	0.57	--	0.76	--
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	--	--	--
Calcium, dissolved	mg/l	--	--	50	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	<0.005	--	--	--	--
Cobalt, dissolved	mg/l	--	--	0.0016	--	--	--	--
Copper, dissolved	mg/l	--	1	0.001	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.1	1.04	--	3.39	4.11

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 17-Aug-2009 40-07	G40-07 27-May-2010 T-5	G40-07 24-Jun-2010 40-07	G40-07 12-Aug-2010 C-14	G40-07 09-Sep-2010 40-07
Lead, dissolved	mg/l	0.01	--	<0.0005	--	--	--	--
Magnesium, dissolved	mg/l	--	--	22	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.22	0.32	0.31	0.32	0.37
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.001	--	--	--	--
Nickel, dissolved	mg/l	--	--	0.006	--	--	--	--
Potassium, dissolved	mg/l	--	--	4.9	--	--	--	--
Silicon, dissolved	mg/l	--	--	4.1	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.0001	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	55	54.6	--	65.7	--
Strontium, dissolved	mg/l	--	--	0.29	--	--	--	--
Sulfur, dissolved	mg/l	--	--	2.3	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.00005	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	--	--	--
Vanadium, dissolved	mg/l	--	--	0.003	--	--	--	--
Zinc, dissolved	mg/l	--	5	0.006	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	609	735	--	686	--
Temperature (Field)	deg c	--	15	18.6	12.4	--	18.1	--
pH (Field)	-	--	--	6.54	6.90	--	6.84	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 29-Apr-2011 R-7	G40-07 27-May-2011 40-07	G40-07 24-Aug-2011 G 40-07	G40-07 05-Jun-2012 40-07	G40-07 29-Aug-2012 40-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	159	--	211	210	260
Ammonia, unionized (Field)	mg/l	--	--	--	--	<0.02	--	--
Ammonia Nitrogen	mg/l	--	--	0.06	--	0.06	<0.050	0.075
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	46	--	93	80	99
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	17.4	16.3	16.8	22	19
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	160	--	210	230	230
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.2	--	0.2	0.11	0.073
Phosphorus (dissolved reactive)	mg/l	--	--	<0.01	--	0.01	<0.010	<0.010
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	304	--	432	416	432
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.44	--	0.75	0.64	0.82
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.83	--	3.31	2.06	1.71

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 29-Apr-2011 R-7	G40-07 27-May-2011 40-07	G40-07 24-Aug-2011 G 40-07	G40-07 05-Jun-2012 40-07	G40-07 29-Aug-2012 40-07
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.34	0.33	0.38	0.39	0.43
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	46.1	--	62.6	58.8	76.6
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	532	--	631	660	816
Temperature (Field)	deg c	--	15	7.3	--	19.0	14.7	18.6
pH (Field)	-	--	--	7.38	--	6.82	6.88	6.77

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 23-Apr-2013 R-16	G40-07 06-Sep-2013 G40-07	G40-07 12-May-2014 40-07	G40-07 26-Aug-2014 40-07	G40-07 20-May-2015 40-07
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	180	260	210	300	290
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.076	0.11	0.081	0.11	<0.050
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	45	100	66	110	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	100
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	18	23	22	21	18
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	160	240	200	270	290
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	<0.010	<0.010	<0.010	<0.010
Phosphorus	mg/l	--	--	0.13	0.079	0.16	0.10	0.14
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	308	482	334	546	536
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.62	0.84	0.69	0.82	0.82
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.42	1.72	1.3	2.3	2.4

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 23-Apr-2013 R-16	G40-07 06-Sep-2013 G40-07	G40-07 12-May-2014 40-07	G40-07 26-Aug-2014 40-07	G40-07 20-May-2015 40-07
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.21	0.36	0.48	0.59	0.78
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	53.9	73.6	56	81	79
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	542	738	615	874	601
Temperature (Field)	deg c	--	15	5.0	17.1	11.2	16.3	10.4
pH (Field)	-	--	--	7.52	6.93	7.19	7.17	7.21

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 19-Aug-2015 40-07	G40-07 17-June-2016 40-07	G40-07 23-Aug-2016 40-07	G40-07 23-Aug-2016 DUP	RPD
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	320	308	338	341	2%
Ammonia, unionized (Field)	mg/l	--	--	--		--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.050	0.01	< 0.01	< 0.01	NC
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	94.4	109	110	2%
Chloride, dissolved	mg/l	--	250	110		--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21	14.4	14.1	13.6	7%
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	280	253	291	292	1%
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	0.03	0.01	0.02	NC
Phosphorus	mg/l	--	--	0.14	3.76	0.38	0.38	0%
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	536	549	634	636	1%
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.98	0.713	1.19	1.19	0%
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	0.001	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.5	2.3	2.02	1.99	3%

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 19-Aug-2015 40-07	G40-07 17-June-2016 40-07	G40-07 23-Aug-2016 40-07	G40-07 23-Aug-2016 DUP	RPD
Lead, dissolved	mg/l	0.01	--	--	0.606	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.73	--	0.699	0.703	1%
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	89	81	97.6	97.2	1%
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--		--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	584		993	--	--
Temperature (Field)	deg c	--	15	12.2		15.1	--	--
pH (Field)	-	--	--	7.3		6.9	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 02-May-2017 40-07	G40-07 21-Sep-2017 40-07	G40-07 01-May-2018 40-07	G40-07 01-May-2018 DUP (G44)	RPD
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	192	272	203	205	2%
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	NC
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	45.6	77.6	56.6	57.4	3%
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	21	19.4	18.3	18.3	0%
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	167	272	202	200	2%
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.02	0.02	0.01	0.06	NC
Phosphorus	mg/l	--	--	0.34	0.19	0.25	0.25	0%
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	295	416	321	323	1%
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.654	0.896	0.557	0.562	2%
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.89	1.96	1.74	1.68	7%

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 02-May-2017 40-07	G40-07 21-Sep-2017 40-07	G40-07 01-May-2018 40-07	G40-07 01-May-2018 DUP (G44)	RPD
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.245	0.523	0.493	0.483	4%
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	58.1	84.8	57.9	58.5	2%
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	548	689	496	--	--
Temperature (Field)	deg c	--	15	6.2	14.4	3.5	--	--
pH (Field)	-	--	--	6.9	6.9	6.9	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 21-Aug-2018 40-07				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	296				
Ammonia, unionized (Field)	mg/l	--	--	--				
Ammonia Nitrogen	mg/l	--	--	< 0.01				
Bicarbonate	mg/l	--	--	--				
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--				
Bromide	mg/l	--	--	--				
Carbonate (CO3)	mg/l	--	--	--				
Chemical Oxygen Demand	mg/l	--	--	--				
Chloride	mg/l	--	250	95.1				
Chloride, dissolved	mg/l	--	250	--				
Conductivity	µmho/c	--	--	--				
Dissolved Organic Carbon	mg/l	--	5	20.4				
Fluoride	mg/l	1.5	--	--				
Hardness, Calcium Carbonate	mg/l	--	80-100	262				
Nitrate as N	mg/l	10	--	--				
Nitrite as N	mg/l	1	--	--				
Nitrogen, Total Kjeldahl	mg/l	--	--	--				
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--				
Nitrogen, Organic	mg/l	--	--	--				
Phosphate	mg/l	--	--	--				
Phosphate, Ortho	mg/l	--	--	0.01				
Phosphorus	mg/l	--	--	0.15				
Phosphorus (dissolved reactive)	mg/l	--	--	--				
Sulphate	mg/l	--	500 (6)	--				
Sulphate, dissolved	mg/l	--	500 (6)	--				
Total Dissolved Solids	mg/l	--	500	462				
Total Organic Carbon	mg/l	--	--	--				
Metals								
Aluminum, total	mg/l	0.1	--	--				
Aluminum, dissolved	mg/l	0.1	--	--				
Barium, dissolved	mg/l	1	--	--				
Beryllium, dissolved	mg/l	--	--	--				
Boron, dissolved	mg/l	5	--	0.878				
Cadmium, dissolved	mg/l	0.005	--	--				
Calcium, dissolved	mg/l	--	--	--				
Chromium, dissolved	mg/l	0.05	--	--				
Cobalt, dissolved	mg/l	--	--	--				
Copper, dissolved	mg/l	--	1	--				
Iron, dissolved	mg/l	--	0.3	1.83				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G40-07 21-Aug-2018 40-07				
Lead, dissolved	mg/l	0.01	--	--				
Magnesium, dissolved	mg/l	--	--	--				
Manganese, dissolved	mg/l	--	0.05	0.657				
Mercury	mg/l	--	--	--				
Mercury, dissolved	mg/l	0.001	--	--				
Molybdenum, dissolved	mg/l	--	--	--				
Nickel, dissolved	mg/l	--	--	--				
Potassium, dissolved	mg/l	--	--	--				
Silicon, dissolved	mg/l	--	--	--				
Silver, dissolved	mg/l	--	--	--				
Sodium, dissolved	mg/l	--	200 (7)	89.9				
Strontium, dissolved	mg/l	--	--	--				
Sulfur, dissolved	mg/l	--	--	--				
Thallium, dissolved	mg/l	--	--	--				
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	--				
Vanadium, dissolved	mg/l	--	--	--				
Zinc, dissolved	mg/l	--	5	--				
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--				
Field Measurements								
Conductivity (Field)	uS/cm	--	--	607				
Temperature (Field)	deg c	--	15	16.4				
pH (Field)	-	--	--	6.9				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 27-May-2010 T-9	G42-10 24-Jun-2010 42-10	G42-10 12-Aug-2010 C-16	G42-10 09-Sep-2010 42-10	G42-10 02-May-2011 S-6
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	576	--	562	--	448
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	2.1	--	2.6	--	1.5
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	6	--	5	--	3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	120	--	97	--	92
Chloride	mg/l	--	250	100	--	110	--	110
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	48.8	18.2	19.5	21.4	17.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	210	--	230	--	250
Nitrate as N	mg/l	10	--	<0.1	--	<0.1	--	0.2
Nitrite as N	mg/l	1	--	<0.01	--	<0.01	--	0.08
Nitrogen, Total Kjeldahl	mg/l	--	--	7	--	5	--	5
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	--	<0.1	--	0.3
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.5	--	0.4	--	0.45
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	--	0.01	--	<0.01
Sulphate	mg/l	--	500 (6)	14	--	<1	--	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	844	820	854	820	706
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.021	--	0.055	--	0.029
Barium, dissolved	mg/l	1	--	0.022	--	0.026	--	0.039
Beryllium, dissolved	mg/l	--	--	<0.0005	--	<0.0005	--	<0.0005
Boron, dissolved	mg/l	5	--	0.79	--	0.70	--	0.50
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	<0.0001	--	<0.0001
Calcium, dissolved	mg/l	--	--	39	--	45	--	51
Chromium, dissolved	mg/l	0.05	--	<0.005	--	<0.005	--	<0.005
Cobalt, dissolved	mg/l	--	--	0.0051	--	0.0033	--	0.0017
Copper, dissolved	mg/l	--	1	0.002	--	0.001	--	0.002
Iron, dissolved	mg/l	--	0.3	1.5	--	7.1	4.61	16

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 27-May-2010 T-9	G42-10 24-Jun-2010 42-10	G42-10 12-Aug-2010 C-16	G42-10 09-Sep-2010 42-10	G42-10 02-May-2011 S-6
Lead, dissolved	mg/l	0.01	--	<0.0005	--	<0.0005	--	<0.0005
Magnesium, dissolved	mg/l	--	--	26	--	28	--	29
Manganese, dissolved	mg/l	--	0.05	0.42	0.58	0.48	0.42	0.63
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	<0.0001	--	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.028	--	0.015	--	0.004
Nickel, dissolved	mg/l	--	--	0.009	--	0.008	--	0.005
Potassium, dissolved	mg/l	--	--	8.3	--	8.1	--	6.4
Silicon, dissolved	mg/l	--	--	9.9	--	11	--	8.9
Silver, dissolved	mg/l	--	--	<0.0001	--	<0.0001	--	<0.0001
Sodium, dissolved	mg/l	--	200 (7)	250	190	230	229	200
Strontium, dissolved	mg/l	--	--	0.22	--	0.24	--	0.25
Sulfur, dissolved	mg/l	--	--	4.4	--	1.8	--	1.1
Thallium, dissolved	mg/l	--	--	<0.00005	--	<0.00005	--	<0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	<0.005	--	<0.005
Vanadium, dissolved	mg/l	--	--	0.002	--	0.003	--	0.002
Zinc, dissolved	mg/l	--	5	0.054	--	0.013	--	0.013
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--	<0.001	--	<0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1376	--	1209	--	1128
Temperature (Field)	deg c	--	15	13.8	--	15.4	--	5.7
pH (Field)	-	--	--	7.26	--	7.00	--	7.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 27-May-2011 42-10	G42-10 25-Aug-2011 (23) G43-10	G42-10 07-Sep-2011 42-10	G42-10 05-Jun-2012 (18) 42-10	G42-10 04-Jul-2012 42-10
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	568	--	390	--
Ammonia, unionized (Field)	mg/l	--	--	--	<0.02	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	2.2	--	1.1	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	4	--	4.0	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	73	--	120	--
Chloride	mg/l	--	250	--	110	--	100	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	22.3	19.0	18.0	38	31
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	220	--	230	--
Nitrate as N	mg/l	10	--	--	<0.1	--	<0.10	--
Nitrite as N	mg/l	1	--	--	0.06	--	0.12	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	4	--	3.2	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	<0.1	--	0.21	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	0.22	--	0.20	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	0.02	--	0.030	--
Sulphate	mg/l	--	500 (6)	--	<1	--	34	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	774	1000	968	740	704
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.012	--	0.11	--
Barium, dissolved	mg/l	1	--	--	0.031	--	0.035	--
Beryllium, dissolved	mg/l	--	--	--	<0.0005	--	<0.00050	--
Boron, dissolved	mg/l	5	--	--	0.71	--	0.51	--
Cadmium, dissolved	mg/l	0.005	--	--	<0.0001	--	<0.00010	--
Calcium, dissolved	mg/l	--	--	--	43	--	48	--
Chromium, dissolved	mg/l	0.05	--	--	<0.005	--	<0.0050	--
Cobalt, dissolved	mg/l	--	--	--	0.0013	--	0.0021	--
Copper, dissolved	mg/l	--	1	--	0.001	--	0.0018	--
Iron, dissolved	mg/l	--	0.3	12.1	2.5	--	8.4	1.98

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 27-May-2011 42-10	G42-10 25-Aug-2011 (23) G43-10	G42-10 07-Sep-2011 42-10	G42-10 05-Jun-2012 (18) 42-10	G42-10 04-Jul-2012 42-10
Lead, dissolved	mg/l	0.01	--	--	<0.0005	--	<0.00050	--
Magnesium, dissolved	mg/l	--	--	--	28	--	27	--
Manganese, dissolved	mg/l	--	0.05	0.58	0.46	0.43	0.6	0.47
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	--	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	--	0.0044	--	0.0017	--
Nickel, dissolved	mg/l	--	--	--	0.004	--	0.0056	--
Potassium, dissolved	mg/l	--	--	--	7.5	--	6.6	--
Silicon, dissolved	mg/l	--	--	--	11	--	9.1	--
Silver, dissolved	mg/l	--	--	--	<0.0001	--	<0.00010	--
Sodium, dissolved	mg/l	--	200 (7)	192	230	--	200	139
Strontium, dissolved	mg/l	--	--	--	0.22	--	0.24	--
Sulfur, dissolved	mg/l	--	--	--	2.0	--	12	--
Thallium, dissolved	mg/l	--	--	--	<0.00005	--	0.000080	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.005	--	0.0083	--
Vanadium, dissolved	mg/l	--	--	--	0.0008	--	0.0029	--
Zinc, dissolved	mg/l	--	5	--	0.014	--	0.0098	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.001	--	<0.0010	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	659	--	1061	--
Temperature (Field)	deg c	--	15	--	18.3	--	12.2	--
pH (Field)	-	--	--	--	6.79	--	6.77	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 29-Aug-2012 42-10	G42-10 05-Oct-2012 42-10	G42-10 23-Apr-2013 S-5	G42-10 28-May-2013 42-10	G42-10 06-Sep-2013 G42-10
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	490	--	300	--	410
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	2.5	--	0.84	--	1.9
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4.0	--	<2.0	--	<2.0
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	70	--	75	--	91
Chloride	mg/l	--	250	100	--	230	320	220
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	25	21	19	20	24
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	230	--	350	--	340
Nitrate as N	mg/l	10	--	<0.10	--	0.50	--	<0.10
Nitrite as N	mg/l	1	--	0.031	--	0.097	--	0.081
Nitrogen, Total Kjeldahl	mg/l	--	--	3.3	--	3.3	--	3.8
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	--	0.60	--	0.11
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	0.016
Phosphorus	mg/l	--	--	0.16	--	0.17	<0.1	0.27
Phosphorus (dissolved reactive)	mg/l	--	--	<0.010	--	0.013	--	--
Sulphate	mg/l	--	500 (6)	29	--	34	--	18
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	826	750	766	810	870
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.025	--	0.1	0.22	0.064
Barium, dissolved	mg/l	1	--	0.033	--	0.07	0.11	0.076
Beryllium, dissolved	mg/l	--	--	<0.00050	--	<0.00050	<0.0005	<0.00050
Boron, dissolved	mg/l	5	--	0.55	--	0.21	0.14	0.38
Cadmium, dissolved	mg/l	0.005	--	<0.00010	--	0.00012	0.0003	<0.00010
Calcium, dissolved	mg/l	--	--	48	--	79	82	75
Chromium, dissolved	mg/l	0.05	--	<0.0050	--	<0.0050	<0.005	<0.0050
Cobalt, dissolved	mg/l	--	--	0.0016	--	0.0017	0.0044	0.0025
Copper, dissolved	mg/l	--	1	0.0031	--	0.0053	0.005	0.0014
Iron, dissolved	mg/l	--	0.3	0.45	--	1.7	1.5	4.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 29-Aug-2012 42-10	G42-10 05-Oct-2012 42-10	G42-10 23-Apr-2013 S-5	G42-10 28-May-2013 42-10	G42-10 06-Sep-2013 G42-10
Lead, dissolved	mg/l	0.01	--	<0.00050	--	<0.00050	<0.0005	0.00051
Magnesium, dissolved	mg/l	--	--	26	--	38	39	38
Manganese, dissolved	mg/l	--	0.05	0.67	0.30	0.56	0.68	1
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	<0.0001	--	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.0018	--	<0.00050	0.0005	0.0013
Nickel, dissolved	mg/l	--	--	0.0048	--	0.0041	0.006	0.0059
Potassium, dissolved	mg/l	--	--	7.1	--	4	2.1	6.9
Silicon, dissolved	mg/l	--	--	9.5	--	4.7	3.4	7.8
Silver, dissolved	mg/l	--	--	<0.00010	--	<0.00010	<0.0001	<0.00010
Sodium, dissolved	mg/l	--	200 (7)	180	142	160	170	180
Strontium, dissolved	mg/l	--	--	0.22	--	0.35	0.44	0.35
Sulfur, dissolved	mg/l	--	--	8.0	--	12.1	--	5.1
Thallium, dissolved	mg/l	--	--	<0.000050	--	<0.000050	<0.00005	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.0050	--	<0.0050	0.007	<0.0050
Vanadium, dissolved	mg/l	--	--	0.0012	--	0.0017	0.0029	0.0022
Zinc, dissolved	mg/l	--	5	0.02	--	0.016	0.021	0.013
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	--	<0.0010	--	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1252	--	843	--	1407
Temperature (Field)	deg c	--	15	27.4	--	4.9	--	13.4
pH (Field)	-	--	--	7.06	--	7.77	--	7.25

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 15-Oct-2013 42-10	G42-10 12-May-2014 42-10	G42-10 06-Jun-2014 MW 42	G42-10 26-Aug-2014 (24) 43-11	G42-10 23-Sep-2014 G-42
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	330	--	250	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.99	--	0.84	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	<2.0	--	<2.0	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	66	--	110	--
Chloride	mg/l	--	250	210	180	210	220	240
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	20	20	23	29	32
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	260	--	300	--
Nitrate as N	mg/l	10	--	--	<0.10	--	<0.50	--
Nitrite as N	mg/l	1	--	--	0.029	--	0.061	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	2.9	--	4.2	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	<0.10	--	<0.50	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	0.028	--	0.020	--
Phosphorus	mg/l	--	--	--	0.17	--	0.23	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	19	--	13	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	818	782	706	772	784
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.041	--	0.14	--
Barium, dissolved	mg/l	1	--	--	0.073	--	0.065	--
Beryllium, dissolved	mg/l	--	--	--	<0.0005	--	<0.00050	--
Boron, dissolved	mg/l	5	--	--	0.36	--	0.28	--
Cadmium, dissolved	mg/l	0.005	--	--	<0.0001	--	0.00012	--
Calcium, dissolved	mg/l	--	--	--	55	--	64	--
Chromium, dissolved	mg/l	0.05	--	--	<0.005	--	<0.0050	--
Cobalt, dissolved	mg/l	--	--	--	0.0013	--	0.0024	--
Copper, dissolved	mg/l	--	1	--	0.002	--	0.0045	--
Iron, dissolved	mg/l	--	0.3	0.3	3.1	2.9	4.7	2.2

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 15-Oct-2013 42-10	G42-10 12-May-2014 42-10	G42-10 06-Jun-2014 MW 42	G42-10 26-Aug-2014 (24) 43-11	G42-10 23-Sep-2014 G-42
Lead, dissolved	mg/l	0.01	--	--	<0.0005	--	<0.00050	--
Magnesium, dissolved	mg/l	--	--	--	31	--	34	--
Manganese, dissolved	mg/l	--	0.05	0.45	0.69	0.68	0.81	0.51
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	--	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	--	<0.0005	--	0.0011	--
Nickel, dissolved	mg/l	--	--	--	0.004	--	0.0080	--
Potassium, dissolved	mg/l	--	--	--	5.4	--	5.6	--
Silicon, dissolved	mg/l	--	--	--	6.6	--	7.1	--
Silver, dissolved	mg/l	--	--	--	<0.0001	--	<0.00010	--
Sodium, dissolved	mg/l	--	200 (7)	170	150	140	150	140
Strontium, dissolved	mg/l	--	--	--	0.26	--	0.3	--
Sulfur, dissolved	mg/l	--	--	--	5.3	--	4.3	--
Thallium, dissolved	mg/l	--	--	--	<0.00005	--	<0.000050	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.005	--	0.0053	--
Vanadium, dissolved	mg/l	--	--	--	0.0017	--	0.0026	--
Zinc, dissolved	mg/l	--	5	--	0.008	--	0.012	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.0010	--	<0.0010	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1293	1212	--	1232	--
Temperature (Field)	deg c	--	15	12.2	9.4	--	14.9	--
pH (Field)	-	--	--	6.99	6.82	--	7.86	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 20-May-2015 (25) 42	G42-10 17-Jun-2015 42	G42-10 18-Aug-2015 (25) 42-10	G42-10 30-Sep-2015 G42-10	G42-10 16-June-2016 G42-10
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	190	--	280	--	326
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.85	--	1.3	--	1.44
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<2.0	--	3.0	--	4
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	100	--	120	--	106
Chloride	mg/l	--	250	--	--	--	--	--
Chloride, dissolved	mg/l	--	250	150	150	160	140	141
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	30	40	38	47	9.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	320	--	220	--	250
Nitrate as N	mg/l	10	--	<0.50	--	<0.50	--	0.1
Nitrite as N	mg/l	1	--	<0.050	--	0.085	--	< 0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	2.5	--	2.9	--	3.3
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.50	--	<0.50	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	0.027	--	0.04
Phosphorus	mg/l	--	--	0.18	--	0.35	--	1.48
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	4	--	<1.0	--	5
Total Dissolved Solids	mg/l	--	500	640	486	756	692	651
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.054	--	0.23	--	0.17
Barium, dissolved	mg/l	1	--	0.044	--	0.044	--	0.028
Beryllium, dissolved	mg/l	--	--	<0.0005	--	<0.00050	--	< 0.0001
Boron, dissolved	mg/l	5	--	0.36	--	0.17	--	0.208
Cadmium, dissolved	mg/l	0.005	--	0.0002	--	<0.00010	--	< 0.00002
Calcium, dissolved	mg/l	--	--	67	--	48	--	54.9
Chromium, dissolved	mg/l	0.05	--	<0.005	--	<0.0050	--	0.003
Cobalt, dissolved	mg/l	--	--	0.0018	--	0.0023	--	0.0019
Copper, dissolved	mg/l	--	1	0.001	--	0.0029	--	< 0.002
Iron, dissolved	mg/l	--	0.3	7.6	1.2	2.3	1.5	5.53

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 20-May-2015 (25) 42	G42-10 17-Jun-2015 42	G42-10 18-Aug-2015 (25) 42-10	G42-10 30-Sep-2015 G42-10	G42-10 16-June-2016 G42-10
Lead, dissolved	mg/l	0.01	--	<0.0005	--	<0.00050	--	0.00021
Magnesium, dissolved	mg/l	--	--	37	--	25	--	27.5
Manganese, dissolved	mg/l	--	0.05	0.97	0.48	0.49	0.22	0.856
Mercury	mg/l	--	--	--	--	<0.0001	--	< 0.00002
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	0.0007	--	<0.00050	--	0.0008
Nickel, dissolved	mg/l	--	--	0.005	--	0.0090	--	< 0.01
Potassium, dissolved	mg/l	--	--	7.1	--	3.7	--	5.5
Silicon, dissolved	mg/l	--	--	9	--	5.4	--	7.47
Silver, dissolved	mg/l	--	--	<0.0001	--	<0.00010	--	0.00002
Sodium, dissolved	mg/l	--	200 (7)	160	110	130	130	125
Strontium, dissolved	mg/l	--	--	0.3	--	0.22	--	0.249
Sulfur, dissolved	mg/l	--	--	4.4	--	3.1	--	3
Thallium, dissolved	mg/l	--	--	<0.00005	--	<0.000050	--	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	0.0095	--	0.006
Vanadium, dissolved	mg/l	--	--	0.0021	--	0.0024	--	0.0049
Zinc, dissolved	mg/l	--	5	0.016	--	<0.0050	--	0.009
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	--	<0.0010	--	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1304	1417	784	1384	949
Temperature (Field)	deg c	--	15	9.2	9.8	11.3	10.1	8.7
pH (Field)	-	--	--	6.91	6.89	6.95	6.85	6.8

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G42-10 23-Aug-2016 G42-11	G42-10 02-May-2017 G42-11	G42-10 21-Sep-2017 G42-11	G42-10 01-May-2018 G42-11	G42-10 21-Aug-2018 G42-11
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	333	69	313	203	307
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	1.29	0.21	1.78	0.7	1.72
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	< 3	4	< 3	< 3
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	124	200	125	213	605
Chloride	mg/l	--	250	--	266	296	231	226
Chloride, dissolved	mg/l	--	250	121	--	--	--	--
Conductivity	µmho/c	--	--	--	--	1630	1170	1290
Dissolved Organic Carbon	mg/l	--	5	27.4	10.2	30.9	26.6	20.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	231	165	406	261	289
Nitrate as N	mg/l	10	--	0.3	0.86	< 0.05	0.12	< 0.05
Nitrite as N	mg/l	1	--	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	3.6	3.75	4.2	3.2	4.5
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.1	0.08	0.07	0.04	0.01
Phosphorus	mg/l	--	--	0.29	0.54	0.18	0.32	0.24
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	17	5	8	8
Sulphate, dissolved	mg/l	--	500 [6]	13	--	--	--	--
Total Dissolved Solids	mg/l	--	500	677	543	977	614	698
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.09	0.29	0.17	0.22	0.1
Barium, dissolved	mg/l	1	--	0.027	0.048	0.068	0.05	0.043
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	0.325	0.069	0.327	0.162	0.298
Cadmium, dissolved	mg/l	0.005	--	0.00002	0.000048	< 0.000014	0.000022	< 0.000015
Calcium, dissolved	mg/l	--	--	49.8	36.6	89.4	54.6	63
Chromium, dissolved	mg/l	0.05	--	< 0.002	0.002	0.002	0.002	0.002
Cobalt, dissolved	mg/l	--	--	0.0014	0.001	< 0.005	0.0016	0.0014
Copper, dissolved	mg/l	--	1	0.007	0.005	< 0.002	0.0025	0.0011
Iron, dissolved	mg/l	--	0.3	2.76	0.534	7	2.78	5

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G42-10 23-Aug-2016 G42-11	G42-10 02-May-2017 G42-11	G42-10 21-Sep-2017 G42-11	G42-10 01-May-2018 G42-11	G42-10 21-Aug-2018 G42-11
Lead, dissolved	mg/l	0.01	--	0.00065	0.00017	0.00013	0.00051	0.00026
Magnesium, dissolved	mg/l	--	--	25.9	17.9	44.5	30.2	32.1
Manganese, dissolved	mg/l	--	0.05	0.628	0.211	0.891	0.824	0.772
Mercury	mg/l	--	--	< 0.00002	--		--	--
Mercury, dissolved	mg/l	0.001	--	--	0.00012	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	0.0016	0.0006	0.0006	0.0005	0.0008
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	6.2	1.2	8	4.5	7
Silicon, dissolved	mg/l	--	--	8.26	3.25	8.83	5.5	8.44
Silver, dissolved	mg/l	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.0001	< 0.0001
Sodium, dissolved	mg/l	--	200 (7)	149	162	242	160	170
Strontium, dissolved	mg/l	--	--	0.228	0.205	0.417	0.257	0.267
Sulfur, dissolved	mg/l	--	--	4.8	6.6	3.2	3.5	5.3
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	< 0.005	0.007	0.007	0.006	0.006
Vanadium, dissolved	mg/l	--	--	0.0042	0.0024	0.0046	0.0022	0.0034
Zinc, dissolved	mg/l	--	5	0.03	0.007	< 0.005	0.013	0.011
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	< 0.001	< 0.001	--	0.012
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1010	1234	1520	917	897
Temperature (Field)	deg c	--	15	10.6	6.1	12	4	11.8
pH (Field)	-	--	--	6.8	6.8	6.7	6.8	6.9

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 25-Aug-2011 (23) G42-10	G43-11 07-Sep-2011 43-11	G43-11 05-Jun-2012 (18) 43-11	G43-11 04-Jul-2012 43-11	G43-11 29-Aug-2012 43-11
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	402	--	420	--	430
Ammonia, unionized (Field)	mg/l	--	--	<0.02	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	4.0	--	4.2	--	5.4
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	--	10	--	10
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	360	--	300	--	300
Chloride	mg/l	--	250	17	--	18	--	19
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	32.4	32	40	34	38
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	170	--	190	--	190
Nitrate as N	mg/l	10	--	<0.1	--	<0.10	--	<0.10
Nitrite as N	mg/l	1	--	0.14	--	<0.010	--	0.015
Nitrogen, Total Kjeldahl	mg/l	--	--	15	--	15	--	29
Nitrogen, Nitrate-Nitrite	mg/l	10	--	0.2	--	<0.10	--	<0.10
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	7.8	--	6.2	--	9.2
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	--	0.066	--	0.021
Sulphate	mg/l	--	500 (6)	<1	--	<1	--	<1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	520	596	630	680	530
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.071	--	0.053	--	0.056
Barium, dissolved	mg/l	1	--	0.050	--	0.032	--	0.025
Beryllium, dissolved	mg/l	--	--	<0.0005	--	<0.00050	--	<0.00050
Boron, dissolved	mg/l	5	--	0.39	--	0.5	--	0.53
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	<0.00010	--	<0.00010
Calcium, dissolved	mg/l	--	--	43	--	44	--	47
Chromium, dissolved	mg/l	0.05	--	<0.005	--	<0.0050	--	<0.0050
Cobalt, dissolved	mg/l	--	--	0.0018	--	0.00058	--	0.00052
Copper, dissolved	mg/l	--	1	0.002	--	0.0012	--	0.0047
Iron, dissolved	mg/l	--	0.3	0.8	1.93	1.1	--	0.3

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 25-Aug-2011 (23) G42-10	G43-11 07-Sep-2011 43-11	G43-11 05-Jun-2012 (18) 43-11	G43-11 04-Jul-2012 43-11	G43-11 29-Aug-2012 43-11
Lead, dissolved	mg/l	0.01	--	<0.0005	--	<0.00050	--	<0.00050
Magnesium, dissolved	mg/l	--	--	16	--	19	--	17
Manganese, dissolved	mg/l	--	0.05	0.26	0.25	0.19	--	0.17
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	<0.0001	--	<0.0001
Molybdenum, dissolved	mg/l	--	--	0.0018	--	0.00056	--	<0.00050
Nickel, dissolved	mg/l	--	--	0.006	--	0.0020	--	0.0034
Potassium, dissolved	mg/l	--	--	6.1	--	8.8	--	7.9
Silicon, dissolved	mg/l	--	--	9.3	--	11	--	11
Silver, dissolved	mg/l	--	--	<0.0001	--	<0.00010	--	0.00011
Sodium, dissolved	mg/l	--	200 (7)	100	139	150	113	130
Strontium, dissolved	mg/l	--	--	0.19	--	0.22	--	0.2
Sulfur, dissolved	mg/l	--	--	1.2	--	<5	--	0.8
Thallium, dissolved	mg/l	--	--	<0.00005	--	<0.000050	--	<0.000050
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	<0.0050	--	<0.0050
Vanadium, dissolved	mg/l	--	--	0.0034	--	0.0029	--	0.0028
Zinc, dissolved	mg/l	--	5	0.006	--	0.0055	--	0.0070
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.002	--	<0.0010	--	<0.0010
Field Measurements								
Conductivity (Field)	uS/cm	--	--	1152	--	857	--	800
Temperature (Field)	deg c	--	15	15.7	--	16.7	--	18.0
pH (Field)	-	--	--	7.00	--	7.42	--	7.16

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 05-Oct-2012 43-11	G43-11 23-Apr-2013 S-4	G43-11 28-May-2013 43-11	G43-11 06-Sep-2013 G43-11	G43-11 15-Oct-2013 43-10
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	540	--	410	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	5.9	--	3.9	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	11	--	2.0	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	150	--	260	--
Chloride	mg/l	--	250	--	25	--	20	--
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	30	23	27	33	31
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	210	--	180	--
Nitrate as N	mg/l	10	--	--	<0.10	--	<0.10	--
Nitrite as N	mg/l	1	--	--	<0.010	--	0.023	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	18	--	13	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	<0.10	--	<0.10	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	<0.010	--
Phosphorus	mg/l	--	--	--	12	0.36	6.7	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	0.053	--	--	--
Sulphate	mg/l	--	500 (6)	--	<1	--	<1	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	652	670	622	634	700
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.021	0.075	0.037	--
Barium, dissolved	mg/l	1	--	--	0.019	0.02	0.028	--
Beryllium, dissolved	mg/l	--	--	--	<0.00050	<0.0005	<0.00050	--
Boron, dissolved	mg/l	5	--	--	0.64	0.44	0.5	--
Cadmium, dissolved	mg/l	0.005	--	--	<0.00010	<0.0001	<0.00010	--
Calcium, dissolved	mg/l	--	--	--	50	39	46	--
Chromium, dissolved	mg/l	0.05	--	--	<0.0050	<0.005	<0.0050	--
Cobalt, dissolved	mg/l	--	--	--	0.00055	0.0006	0.00068	--
Copper, dissolved	mg/l	--	1	--	<0.0010	<0.001	0.0018	--
Iron, dissolved	mg/l	--	0.3	--	2.5	2.5	0.11	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 05-Oct-2012 43-11	G43-11 23-Apr-2013 S-4	G43-11 28-May-2013 43-11	G43-11 06-Sep-2013 G43-11	G43-11 15-Oct-2013 43-10
Lead, dissolved	mg/l	0.01	--	--	<0.00050	<0.0005	<0.00050	--
Magnesium, dissolved	mg/l	--	--	--	21	17	16	--
Manganese, dissolved	mg/l	--	0.05	--	0.21	0.17	0.17	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	--	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	--	<0.00050	<0.0005	<0.00050	--
Nickel, dissolved	mg/l	--	--	--	0.0012	0.003	0.0031	--
Potassium, dissolved	mg/l	--	--	--	9.6	7.3	7.3	--
Silicon, dissolved	mg/l	--	--	--	12	10	10	--
Silver, dissolved	mg/l	--	--	--	<0.00010	<0.0001	<0.00010	--
Sodium, dissolved	mg/l	--	200 (7)	168	210	140	110	122
Strontium, dissolved	mg/l	--	--	--	0.21	0.19	0.19	--
Sulfur, dissolved	mg/l	--	--	--	0.8	--	1.6	--
Thallium, dissolved	mg/l	--	--	--	<0.000050	<0.00005	<0.000050	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.0050	<0.005	<0.0050	--
Vanadium, dissolved	mg/l	--	--	--	0.0022	0.0020	0.0027	--
Zinc, dissolved	mg/l	--	5	--	<0.0050	0.011	0.0065	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.0010	--	<0.0010	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	809	--	699	666
Temperature (Field)	deg c	--	15	--	5.9	--	13.6	12.4
pH (Field)	-	--	--	--	7.79	--	7.18	7.05

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 12-May-2014 43-11	G43-11 06-Jun-2014 MW 43	G43-11 26-Aug-2014 (9) G43-11	G43-11 20-May-2015 43	G43-11 17-Jun-2015 43
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	550	--	--	490	--
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	3.8	--	--	5.7	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	13	--	--	12	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	350	--	--	1100	--
Chloride	mg/l	--	250	28	--	--	--	--
Chloride, dissolved	mg/l	--	250	--	--	--	26	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	25	27	--	24	29
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	180	--	--	200	--
Nitrate as N	mg/l	10	--	<0.10	--	--	<0.10	--
Nitrite as N	mg/l	1	--	<0.010	--	--	0.030	--
Nitrogen, Total Kjeldahl	mg/l	--	--	15	--	--	9.0	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.10	--	--	<0.10	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	<0.010	--	--	0.075	--
Phosphorus	mg/l	--	--	9.6	--	--	14	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	<1	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	2	--
Total Dissolved Solids	mg/l	--	500	598	736	--	930	760
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	0.024	--	--	0.032	--
Barium, dissolved	mg/l	1	--	0.022	--	--	0.024	--
Beryllium, dissolved	mg/l	--	--	<0.0005	--	--	<0.0005	--
Boron, dissolved	mg/l	5	--	0.62	--	--	0.48	--
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	--	<0.0001	--
Calcium, dissolved	mg/l	--	--	44	--	--	50	--
Chromium, dissolved	mg/l	0.05	--	<0.005	--	--	<0.005	--
Cobalt, dissolved	mg/l	--	--	0.0007	--	--	<0.0005	--
Copper, dissolved	mg/l	--	1	<0.001	--	--	<0.001	--
Iron, dissolved	mg/l	--	0.3	2.5	2.5	--	2.2	3.0

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 12-May-2014 43-11	G43-11 06-Jun-2014 MW 43	G43-11 26-Aug-2014 (9) G43-11	G43-11 20-May-2015 43	G43-11 17-Jun-2015 43
Lead, dissolved	mg/l	0.01	--	<0.0005	--	--	<0.0005	--
Magnesium, dissolved	mg/l	--	--	18	--	--	19	--
Manganese, dissolved	mg/l	--	0.05	0.26	0.17	--	0.15	--
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	--	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	<0.0005	--	--	<0.0005	--
Nickel, dissolved	mg/l	--	--	0.003	--	--	0.002	--
Potassium, dissolved	mg/l	--	--	8.6	--	--	8.4	--
Silicon, dissolved	mg/l	--	--	13	--	--	12	--
Silver, dissolved	mg/l	--	--	<0.0001	--	--	<0.0001	--
Sodium, dissolved	mg/l	--	200 (7)	160	120	--	140	140
Strontium, dissolved	mg/l	--	--	0.2	--	--	0.21	--
Sulfur, dissolved	mg/l	--	--	1.1	--	--	2.2	--
Thallium, dissolved	mg/l	--	--	<0.00005	--	--	<0.00005	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.005	--	--	<0.005	--
Vanadium, dissolved	mg/l	--	--	0.0042	--	--	0.0032	--
Zinc, dissolved	mg/l	--	5	<0.005	--	--	<0.005	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.0010	--	--	<0.0010	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	692	--	--	771	804
Temperature (Field)	deg c	--	15	10.6	--	--	9.8	9.9
pH (Field)	-	--	--	6.93	--	--	6.91	7.01

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 18-Aug-2015 (9) G43-11	G43-11 16-June-2016 43-11	G43-11 23-Aug-2016 43-11	G43-11 01-May-2017 43-11	G43-11 20-Sep-2017 43-11
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	--	334	314	207	250
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	3.19	2.39	1.58	1.96
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	14	6	< 3	6
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	476	382	255	455
Chloride	mg/l	--	250	--	17	15.2	23.5	29.3
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	625
Dissolved Organic Carbon	mg/l	--	5	--	35.8	28.7	18.8	58.4
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	--	151	164	150	200
Nitrate as N	mg/l	10	--	--	0.3	0.2	0.16	0.1
Nitrite as N	mg/l	1	--	--	0.2	< 0.1	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	3.3	12.9	4.96	4.2
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	0.01	0.14	0.32	0.2
Phosphorus	mg/l	--	--	--	17	5.07	1.57	2.65
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	29	8
Sulphate, dissolved	mg/l	--	500 (6)	--	3	12	--	--
Total Dissolved Solids	mg/l	--	500	--	429	436	282	317
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	0.15	0.09	0.23	0.19
Barium, dissolved	mg/l	1	--	--	0.027	0.024	0.021	0.039
Beryllium, dissolved	mg/l	--	--	--	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Boron, dissolved	mg/l	5	--	--	0.301	0.532	0.303	0.442
Cadmium, dissolved	mg/l	0.005	--	--	< 0.00002	< 0.00002	< 0.000014	< 0.000014
Calcium, dissolved	mg/l	--	--	--	35.3	41.3	36.9	48.3
Chromium, dissolved	mg/l	0.05	--	--	< 0.002	< 0.002	0.002	0.002
Cobalt, dissolved	mg/l	--	--	--	0.0005	0.0003	< 0.005	< 0.005
Copper, dissolved	mg/l	--	1	--	< 0.002	0.002	< 0.002	< 0.002
Iron, dissolved	mg/l	--	0.3	--	0.699	0.272	2.7	2.61

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 18-Aug-2015 (9) G43-11	G43-11 16-June-2016 43-11	G43-11 23-Aug-2016 43-11	G43-11 01-May-2017 43-11	G43-11 20-Sep-2017 43-11
Lead, dissolved	mg/l	0.01	--	--	0.00003	0.00008	< 0.00002	0.00009
Magnesium, dissolved	mg/l	--	--	--	15.4	14.8	14.1	19.2
Manganese, dissolved	mg/l	--	0.05	--	0.128	0.153	0.22	0.25
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	0.0002	0.0005	0.0003	0.0002
Nickel, dissolved	mg/l	--	--	--	< 0.01	< 0.01	< 0.01	< 0.01
Potassium, dissolved	mg/l	--	--	--	7.3	6.3	3.4	6.2
Silicon, dissolved	mg/l	--	--	--	8.11	9.04	5.57	8.38
Silver, dissolved	mg/l	--	--	--	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	--	76.6	92.2	46	72.6
Strontium, dissolved	mg/l	--	--	--	0.187	0.18	0.172	0.235
Sulfur, dissolved	mg/l	--	--	--	1.3	4.5	11.6	3.9
Thallium, dissolved	mg/l	--	--	--	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	< 0.005	< 0.005	0.006	0.005
Vanadium, dissolved	mg/l	--	--	--	0.0031	0.0042	0.0048	0.004
Zinc, dissolved	mg/l	--	5	--	< 0.005	< 0.005	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	774	685	592	532
Temperature (Field)	deg c	--	15	--	11	8.5	5.8	11
pH (Field)	-	--	--	--	7.5	6.7	6.8	6.7

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 01-May-2018 G43-11	G43-11 21-Aug-2018 G43-11			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	30-500	255	336			
Ammonia, unionized (Field)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	2.03	2.35			
Bicarbonate	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	< 3	< 3			
Bromide	mg/l	--	--	--	--			
Carbonate (CO3)	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	370	1110			
Chloride	mg/l	--	250	41.4	35.8			
Chloride, dissolved	mg/l	--	250	--	--			
Conductivity	µmho/c	--	--	635	727			
Dissolved Organic Carbon	mg/l	--	5	49.1	42			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	80-100	191	177			
Nitrate as N	mg/l	10	--	< 0.05	0.14			
Nitrite as N	mg/l	1	--	< 0.05	< 0.05			
Nitrogen, Total Kjeldahl	mg/l	--	--	12.6	28.4			
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphate, Ortho	mg/l	--	--	0.33	0.03			
Phosphorus	mg/l	--	--	4.72	28.5			
Phosphorus (dissolved reactive)	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	1	2			
Sulphate, dissolved	mg/l	--	500 (6)	--	--			
Total Dissolved Solids	mg/l	--	500	346	410			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, total	mg/l	0.1	--	--	--			
Aluminum, dissolved	mg/l	0.1	--	0.17	0.07			
Barium, dissolved	mg/l	1	--	0.036	0.028			
Beryllium, dissolved	mg/l	--	--	< 0.0001	< 0.0001			
Boron, dissolved	mg/l	5	--	0.294	0.419			
Cadmium, dissolved	mg/l	0.005	--	< 0.000015	< 0.000015			
Calcium, dissolved	mg/l	--	--	46.5	42.8			
Chromium, dissolved	mg/l	0.05	--	0.002	0.001			
Cobalt, dissolved	mg/l	--	--	0.001	0.0006			
Copper, dissolved	mg/l	--	1	0.0006	0.0005			
Iron, dissolved	mg/l	--	0.3	3.19	1.53			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G43-11 01-May-2018 G43-11	G43-11 21-Aug-2018 G43-11			
Lead, dissolved	mg/l	0.01	--	0.00009	0.00011			
Magnesium, dissolved	mg/l	--	--	18.3	17.1			
Manganese, dissolved	mg/l	--	0.05	0.257	0.172			
Mercury	mg/l	--	--	--	--			
Mercury, dissolved	mg/l	0.001	--	< 0.00002	< 0.00002			
Molybdenum, dissolved	mg/l	--	--	0.0002	0.0003			
Nickel, dissolved	mg/l	--	--	< 0.01	< 0.01			
Potassium, dissolved	mg/l	--	--	4.7	7.4			
Silicon, dissolved	mg/l	--	--	7.58	8.51			
Silver, dissolved	mg/l	--	--	< 0.0001	< 0.0001			
Sodium, dissolved	mg/l	--	200 (7)	77.6	98.6			
Strontium, dissolved	mg/l	--	--	0.231	0.198			
Sulfur, dissolved	mg/l	--	--	1.6	1.6			
Thallium, dissolved	mg/l	--	--	< 0.00005	< 0.00005			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	< 0.005	< 0.005			
Vanadium, dissolved	mg/l	--	--	0.0021	0.0019			
Zinc, dissolved	mg/l	--	5	< 0.005	< 0.005			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	< 0.001	0.012			
Field Measurements								
Conductivity (Field)	uS/cm	--	--	543	611			
Temperature (Field)	deg c	--	15	5.7	10.1			
pH (Field)	-	--	--	6.6	7.4			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31B-98 11-Jun-1998	G31B-98 20-Aug-1998 (5)	G31B-98 02-Jun-2000 (5)	G31B-98 18-Aug-2000 (5)	G31B-98 02-May-2017
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	496	--	--	--	395
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	1.78	--	--	--	0.55
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	31	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	<3	--	--	--	--
Chloride	mg/l	--	250	72	--	--	--	74.8
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	6.7	--	--	--	8.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	308	--	--	--	10
Nitrate as N	mg/l	10	--	0.6	--	--	--	--
Nitrite as N	mg/l	1	--	<0.1	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.78	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	--	--	--	--	0.75
Phosphorus	mg/l	--	--	1.18	--	--	--	2.42
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	42	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	612	--	--	--	554
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	80.3	--	--	--	--
Barium, dissolved	mg/l	1	--	-- (20)	--	--	--	--
Beryllium, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Boron, dissolved	mg/l	5	--	-- (20)	--	--	--	0.874
Cadmium, dissolved	mg/l	0.005	--	-- (20)	--	--	--	--
Calcium, dissolved	mg/l	--	--	36	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	-- (20)	--	--	--	--
Cobalt, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Copper, dissolved	mg/l	--	1	-- (20)	--	--	--	--
Iron, dissolved	mg/l	--	0.3	-- (20)	--	--	--	0.393

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31B-98 11-Jun-1998	G31B-98 20-Aug-1998 (5)	G31B-98 02-Jun-2000 (5)	G31B-98 18-Aug-2000 (5)	G31B-98 02-May-2017
Lead, dissolved	mg/l	0.01	--	**0.024**	--	--	--	--
Magnesium, dissolved	mg/l	--	--	53	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	-- (20)	--	--	--	0.019
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Nickel, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Potassium, dissolved	mg/l	--	--	118	--	--	--	--
Silicon, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Silver, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	197	--	--	--	233
Strontium, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Sulfur, dissolved	mg/l	--	--	14	--	--	--	--
Thallium, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Tin, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Titanium, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Vanadium, dissolved	mg/l	--	--	-- (20)	--	--	--	--
Zinc, dissolved	mg/l	--	5	-- (20)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	800	--	--	--	1014
Temperature (Field)	deg c	--	15	10	--	--	--	8.4
pH (Field)	-	--	--	7.1	--	--	--	8.6

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31B-98 02-May-2017 DUP G41	RPD	G31B-98 21-Sep-17	G31B-98 21-Sep-17 DUP G45	RPD
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	401	2%	395	400	1%
Ammonia, unionized (Field)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	0.62	12%	0.45	0.46	2%
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	75.6	1%	80.6	81.4	1%
Chloride, dissolved	mg/l	--	250	--	--	--	--	--
Conductivity	µmho/c	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	8.6	4%	8	7.6	5%
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	4	86%	9	9	0%
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	0.72	4%	0.73	0.7	4%
Phosphorus	mg/l	--	--	2.27	6%	1.15	1.11	4%
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	557	1%	568	568	0%
Total Organic Carbon	mg/l	--	--	--	--	--		--
Metals								
Aluminum, total	mg/l	0.1	--	--	--	--	--	--
Aluminum, dissolved	mg/l	0.1	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.877	0%	1.04	1.04	0%
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.016	184%	0.025	0.026	4%

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G31B-98 02-May-2017 DUP G41	RPD	G31B-98 21-Sep-17	G31B-98 21-Sep-17 DUP G45	RPD
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.004	130%	0.004	0.004	0%
Mercury	mg/l	--	--	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	235	1%	264	263	0%
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur, dissolved	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--
Field Measurements								
Conductivity (Field)	uS/cm	--	--	--	--	918	--	--
Temperature (Field)	deg c	--	15	--	--	9.0	--	--
pH (Field)	-	--	--	--	--	9.3	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P1-90 01-Nov-1990	P1-90 08-Aug-1991 (8)
General Chemistry					
Alkalinity (Total as CaCO3)	mg/l	--	--	152	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--
Bicarbonate	mg/l	--	--	185	--
Carbonate (CO3)	mg/l	--	--	<1	--
Chemical Oxygen Demand	mg/l	--	--	12	--
Chloride	mg/l	--	250	43	--
Conductivity (Field)	uS/cm	--	--	629	--
Dissolved Organic Carbon	mg/l	--	5	6	--
Hardness, Calcium Carbonate	mg/l	--	--	192	--
Nitrate as N	mg/l	10	--	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.19	--
Nitrogen, Organic	mg/l	--	--	0.19	--
pH (Field)	-	--	--	7.37	--
Phosphorus	mg/l	--	--	0.19	--
Sulphate	mg/l	--	500 (6)	61	--
Total Dissolved Solids	mg/l	--	500	284	--
Metals					
Calcium, dissolved	mg/l	--	--	47	--
Copper, dissolved	mg/l	--	1	<0.05	--
Iron, dissolved	mg/l	--	0.3	1.23	--
Lead, dissolved	mg/l	0.01	--	<0.05	--
Magnesium, dissolved	mg/l	--	--	18	--
Manganese, dissolved	mg/l	--	0.05	0.37	--
Mercury, dissolved	mg/l	0.001	--	<0.1	--
Nickel, dissolved	mg/l	--	--	<0.05	--
Potassium, dissolved	mg/l	--	--	2	--
Sodium, dissolved	mg/l	--	200 (7)	40	--
Zinc, dissolved	mg/l	--	5	<0.05	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 01-Nov-1990	P3-90 08-Aug-1991	P3-90 04-Dec-1991	P3-90 29-Apr-1992	P3-90 08-Sep-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	155	--	250	500	250
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	<0.1	<0.1
Bicarbonate	mg/l	--	--	189	--	305	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	15	4
Bromide	mg/l	--	--	--	--	--	<0.5	0.8
Carbonate (CO3)	mg/l	--	--	<1	--	<1	--	--
Chemical Oxygen Demand	mg/l	--	--	16	--	469	88	25
Chloride	mg/l	--	250	38	45	84	199	83
Conductivity (Field)	uS/cm	--	--	575	627	732	2150	800
Dissolved Organic Carbon	mg/l	--	5	5.4	--	11.3	--	--
Fluoride	mg/l	1.5	--	--	--	--	0.06	0.07
Hardness, Calcium Carbonate	mg/l	--	--	175	--	295	709	346
Nitrate as N	mg/l	10	--	<0.1	--	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	--	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.1	--	1.59	1.56	0.44
Nitrogen, Organic	mg/l	--	--	<0.1	--	--	1.56	0.44
pH (Field)	-	--	--	7.76	--	6.41	6.2	6.1
Phosphate	mg/l	--	--	0.83	<0.1	--	0.25	0.3
Phosphorus	mg/l	--	--	--	--	1.92	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	51	31	71	11	25
Temperature (Field)	deg c	--	15	--	--	--	7	8
Total Dissolved Solids	mg/l	--	500	225	452	416	910	440
Total Organic Carbon	mg/l	--	--	--	--	--	37	10
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	<0.03	<0.03
Barium, dissolved	mg/l	1	--	--	--	--	0.08	0.03
Beryllium, dissolved	mg/l	--	--	--	--	--	0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	--	0.21	0.13
Cadmium, dissolved	mg/l	0.005	--	--	--	--	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	47	--	62	154	81
Chromium, dissolved	mg/l	0.05	--	--	--	--	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	--	<0.01	0.03
Copper, dissolved	mg/l	--	1	<0.05	--	0.07	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	9.29	0.12	14.95	25.92	9.31

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 01-Nov-1990	P3-90 08-Aug-1991	P3-90 04-Dec-1991	P3-90 29-Apr-1992	P3-90 08-Sep-1992
Lead, dissolved	mg/l	0.01	--	<0.05	--	<0.05	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	14	--	34	79	35
Manganese, dissolved	mg/l	--	0.05	2.89	3.15	4.82	11.11	6.66
Mercury, dissolved	mg/l	0.001	--	<0.1	--	**0.11**	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.05	--	0.09	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	--	4	3	2
Silicon, dissolved	mg/l	--	--	--	--	--	11.2	10.6
Silver, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	30	7	27	40	28
Strontium, dissolved	mg/l	--	--	--	--	--	1.31	0.12
Sulfur	mg/l	--	--	--	--	--	11	9
Thallium, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	--	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	--	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	--	0.02	<0.01
Zinc, dissolved	mg/l	--	5	<0.05	--	0.27	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	<0.002	<0.002

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 27-Nov-1992	P3-90 05-May-1993 (5)	P3-90 10-Nov-1993 (5)	P3-90 03-Jun-1994 (5)	P3-90 09-Sep-1994 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	298	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	--	--	--	--
Bromide	mg/l	--	--	1.6	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	37	--	--	--	--
Chloride	mg/l	--	250	93	--	--	--	--
Conductivity (Field)	uS/cm	--	--	775	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	0.07	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	314	--	--	--	--
Nitrate as N	mg/l	10	--	<0.1	--	--	--	--
Nitrite as N	mg/l	1	--	<0.1	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.49	--	--	--	--
Nitrogen, Organic	mg/l	--	--	0.49	--	--	--	--
pH (Field)	-	--	--	5.8	--	--	--	--
Phosphate	mg/l	--	--	0.15	--	--	--	--
Phosphorus	mg/l	--	--	<0.1	--	--	--	--
Sulphate	mg/l	--	500 (6)	26	--	--	--	--
Temperature (Field)	deg c	--	15	9	--	--	--	--
Total Dissolved Solids	mg/l	--	500	550	--	--	--	--
Total Organic Carbon	mg/l	--	--	13	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.29	--	--	--	--
Barium, dissolved	mg/l	1	--	0.16	--	--	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Boron, dissolved	mg/l	5	--	0.14	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	--	--	--	--
Calcium, dissolved	mg/l	--	--	70	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	0.03	--	--	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	--	--	--	--
Copper, dissolved	mg/l	--	1	<0.01	--	--	--	--
Iron, dissolved	mg/l	--	0.3	8.06	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 27-Nov-1992	P3-90 05-May-1993 (5)	P3-90 10-Nov-1993 (5)	P3-90 03-Jun-1994 (5)	P3-90 09-Sep-1994 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	--	--	--	--
Magnesium, dissolved	mg/l	--	--	34	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	3.19	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	--	--	--	--
Nickel, dissolved	mg/l	--	--	0.02	--	--	--	--
Potassium, dissolved	mg/l	--	--	7	--	--	--	--
Silicon, dissolved	mg/l	--	--	8.7	--	--	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	55	--	--	--	--
Strontium, dissolved	mg/l	--	--	0.49	--	--	--	--
Sulfur	mg/l	--	--	11	--	--	--	--
Thallium, dissolved	mg/l	--	--	<0.05	--	--	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	--	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 24-Nov-1994 (5)	P3-90 04-Jun-1995 (5)	P3-90 11-Sep-1995 (5)	P3-90 07-Nov-1995 (5)	P3-90 17-Jul-1996 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 24-Nov-1994 (5)	P3-90 04-Jun-1995 (5)	P3-90 11-Sep-1995 (5)	P3-90 07-Nov-1995 (5)	P3-90 17-Jul-1996 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 22-Nov-1996 (5)	P3-90 10-Jun-1997 (5)	P3-90 09-Sep-1997 (5)	P3-90 11-Jun-1998 (5)	P3-90 20-Aug-1998 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	P3-90 22-Nov-1996 [5]	P3-90 10-Jun-1997 [5]	P3-90 09-Sep-1997 [5]	P3-90 11-Jun-1998 [5]	P3-90 20-Aug-1998 [5]
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 [7]	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 25-May-1999 (5)	P3-90 31-Aug-1999 (5)			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P3-90 25-May-1999 (5)	P3-90 31-Aug-1999 (5)			
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 09-Aug-1991	P5A-91 04-Dec-1991	P5A-91 01-May-1992	P5A-91 07-Sep-1992	P5A-91 28-Nov-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	154	244	258	136	206
Ammonia Nitrogen	mg/l	--	--	0.36	--	<0.1	<0.1	<0.1
Bicarbonate	mg/l	--	--	188	297	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	5	1	2
Bromide	mg/l	--	--	--	--	1.1	0.8	1.2
Carbonate (CO3)	mg/l	--	--	<1	<1	--	--	--
Chemical Oxygen Demand	mg/l	--	--	84	470	27	10	22
Chloride	mg/l	--	250	65	76	93	68	86
Conductivity (Field)	uS/cm	--	--	547	636	954	550	600
Dissolved Organic Carbon	mg/l	--	5	6.5	9.7	--	--	--
Fluoride	mg/l	1.5	--	--	--	0.07	0.09	0.07
Hardness, Calcium Carbonate	mg/l	--	--	363	250	298	190	268
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	8.8	0.75	0.44	0.21	0.31
Nitrogen, Organic	mg/l	--	--	8.44	--	0.44	0.21	0.31
pH (Field)	-	--	--	7.2	6.65	6.4	6.6	6.4
Phosphate	mg/l	--	--	--	--	0.24	0.24	0.25
Phosphorus	mg/l	--	--	3.71	3.36	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	11	12	11	10	<3
Temperature (Field)	deg c	--	15	--	--	10	8	8
Total Dissolved Solids	mg/l	--	500	432	388	480	320	410
Total Organic Carbon	mg/l	--	--	--	--	8.6	7.4	9.8
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	0.1	0.32	0.08
Barium, dissolved	mg/l	1	--	--	--	0.04	0.03	0.04
Beryllium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	0.16	0.21	0.17
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	85	59	78	48	71
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	0.03	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	0.02	<0.01
Copper, dissolved	mg/l	--	1	0.13	<0.05	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.13	6.6	0.22	0.66	0.53

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 09-Aug-1991	P5A-91 04-Dec-1991	P5A-91 01-May-1992	P5A-91 07-Sep-1992	P5A-91 28-Nov-1992
Lead, dissolved	mg/l	0.01	--	**0.07**	<0.05	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	36	25	25	17	22
Manganese, dissolved	mg/l	--	0.05	0.62	1.69	2.55	1.81	1.98
Mercury, dissolved	mg/l	0.001	--	<0.1	<0.1	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	0.08	<0.05	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	8	5	2	2	2
Silicon, dissolved	mg/l	--	--	--	--	8.8	11.3	8.6
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	16	23	34	28	29
Strontium, dissolved	mg/l	--	--	--	--	0.52	0.42	0.51
Sulfur	mg/l	--	--	--	--	7	4	7
Thallium, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.18	0.13	<0.01	0.16	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.002	<0.002	0.005

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 05-May-1993 (5)	P5A-91 10-Nov-1993 (5)	P5A-91 03-Jun-1994 (5)	P5A-91 09-Sep-1994 (5)	P5A-91 24-Nov-1994 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 05-May-1993 (5)	P5A-91 10-Nov-1993 (5)	P5A-91 03-Jun-1994 (5)	P5A-91 09-Sep-1994 (5)	P5A-91 24-Nov-1994 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 04-Jun-1995 (5)	P5A-91 11-Sep-1995 (5)	P5A-91 07-Nov-1995 (5)	P5A-91 17-Jul-1996 (5)	P5A-91 22-Nov-1996 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 04-Jun-1995 (5)	P5A-91 11-Sep-1995 (5)	P5A-91 07-Nov-1995 (5)	P5A-91 17-Jul-1996 (5)	P5A-91 22-Nov-1996 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 10-Jun-1997 (5)	P5A-91 09-Sep-1997 (5)	P5A-91 11-Jun-1998 (5)	P5A-91 20-Aug-1998 (5)	P5A-91 25-May-1999 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 10-Jun-1997 (5)	P5A-91 09-Sep-1997 (5)	P5A-91 11-Jun-1998 (5)	P5A-91 20-Aug-1998 (5)	P5A-91 25-May-1999 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 31-Aug-1999 (5)				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P5A-91 31-Aug-1999 (5)				
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 09-Aug-1991	P7-91 04-Dec-1991	P7-91 29-Apr-1992	P7-91 08-Sep-1992	P7-91 27-Nov-1992
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	44	96	36	44	32
Ammonia Nitrogen	mg/l	--	--	0.76	--	0.12	<0.1	<0.1
Bicarbonate	mg/l	--	--	54	117	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	<1	<1	<1
Bromide	mg/l	--	--	--	--	0.6	0.8	<0.5
Carbonate (CO3)	mg/l	--	--	<1	<1	--	--	--
Chemical Oxygen Demand	mg/l	--	--	76	188	<3	<3	8
Chloride	mg/l	--	250	4	2	<1	2	2
Conductivity (Field)	uS/cm	--	--	186	165	138	140	90
Dissolved Organic Carbon	mg/l	--	5	4.4	3.3	--	--	--
Fluoride	mg/l	1.5	--	--	--	0.07	0.1	0.08
Hardness, Calcium Carbonate	mg/l	--	--	184	258	37	49	36
Nitrate as N	mg/l	10	--	<0.1	<0.1	0.58	0.1	0.46
Nitrite as N	mg/l	1	--	--	--	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	4.4	1.4	0.12	<0.1	<0.1
Nitrogen, Organic	mg/l	--	--	3.64	--	0	<0.1	<0.1
pH (Field)	-	--	--	6.5	6.23	7	6.2	6.4
Phosphate	mg/l	--	--	--	--	0.28	0.28	0.3
Phosphorus	mg/l	--	--	3.64	3.84	0.38	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	40	32	18	16	12
Temperature (Field)	deg c	--	15	--	--	5	8	8
Total Dissolved Solids	mg/l	--	500	144	116	80	70	60
Total Organic Carbon	mg/l	--	--	--	--	2	2.8	2
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	<0.03	0.13	0.14
Barium, dissolved	mg/l	1	--	--	--	0.01	0.01	0.02
Beryllium, dissolved	mg/l	--	--	--	--	0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	--	--	<0.01	<0.01	0.01
Cadmium, dissolved	mg/l	0.005	--	--	--	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	32	49	10	13	11
Chromium, dissolved	mg/l	0.05	--	--	--	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	0.11	<0.05	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.4	26.25	0.33	0.16	0.12

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 09-Aug-1991	P7-91 04-Dec-1991	P7-91 29-Apr-1992	P7-91 08-Sep-1992	P7-91 27-Nov-1992
Lead, dissolved	mg/l	0.01	--	**0.11**	<0.05	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	25	33	3	4	2
Manganese, dissolved	mg/l	--	0.05	<0.05	0.4	0.07	0.11	0.05
Mercury, dissolved	mg/l	0.001	--	<0.1	<0.1	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	0.17	0.1	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	5	6	2	3	1
Silicon, dissolved	mg/l	--	--	--	--	5.5	7	4.8
Silver, dissolved	mg/l	--	--	--	--	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	8	35	6	6	4
Strontium, dissolved	mg/l	--	--	--	--	0.04	0.11	0.12
Sulfur	mg/l	--	--	--	--	10	5	7
Thallium, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	--	--	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	--	--	0.02	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	--	--	0.03	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.36	0.08	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	<0.002	<0.002	<0.002

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 05-May-1993 (5)	P7-91 10-Nov-1993 (5)	P7-91 03-Jun-1994 (5)	P7-91 09-Sep-1994 (5)	P7-91 24-Nov-1994 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 05-May-1993 (5)	P7-91 10-Nov-1993 (5)	P7-91 03-Jun-1994 (5)	P7-91 09-Sep-1994 (5)	P7-91 24-Nov-1994 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 04-Jun-1995 (5)	P7-91 11-Sep-1995 (5)	P7-91 07-Nov-1995 (5)	P7-91 17-Jul-1996 (5)	P7-91 22-Nov-1996 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 04-Jun-1995 (5)	P7-91 11-Sep-1995 (5)	P7-91 07-Nov-1995 (5)	P7-91 17-Jul-1996 (5)	P7-91 22-Nov-1996 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 10-Jun-1997 (5)	P7-91 09-Sep-1997 (5)	P7-91 11-Jun-1998 (5)	P7-91 20-Aug-1998 (5)	P7-91 25-May-1999 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 10-Jun-1997 (5)	P7-91 09-Sep-1997 (5)	P7-91 11-Jun-1998 (5)	P7-91 20-Aug-1998 (5)	P7-91 25-May-1999 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 31-Aug-1999 (5)				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Bicarbonate	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	P7-91 31-Aug-1999 (5)				
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 01-May-1992	G8A-92 08-Sep-1992	G8A-92 27-Nov-1992	G8A-92 05-May-1993 (5)	G8A-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	550	620	660	--	--
Ammonia Nitrogen	mg/l	--	--	<0.1	0.33	0.36	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	14	5	9	--	--
Bromide	mg/l	--	--	<0.5	<0.5	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	83	83	67	--	--
Chloride	mg/l	--	250	57	44	43	--	--
Conductivity (Field)	uS/cm	--	--	1439	1400	1250	--	--
Fluoride	mg/l	1.5	--	1.1	1.35	1.5	--	--
Hardness, Calcium Carbonate	mg/l	--	--	65	41	41	--	--
Nitrate as N	mg/l	10	--	<0.1	0.36	0.12	--	--
Nitrite as N	mg/l	1	--	<0.1	0.2	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.11	1.73	2.1	--	--
Nitrogen, Organic	mg/l	--	--	1.11	1.4	1.74	--	--
pH (Field)	-	--	--	7.6	7.9	7.5	--	--
Phosphate	mg/l	--	--	0.91	0.38	1.8	--	--
Phosphorus	mg/l	--	--	0.3	<0.1	<0.1	--	--
Sulphate	mg/l	--	500 (6)	57	94	69	--	--
Temperature (Field)	deg c	--	15	9	7	8	--	--
Total Dissolved Solids	mg/l	--	500	710	810	830	--	--
Total Organic Carbon	mg/l	--	--	28	33	35	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	1.66	4.22	3.84	--	--
Barium, dissolved	mg/l	1	--	0.02	<0.01	<0.01	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.56	0.67	0.42	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	13	10	10	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	0.03	<0.01	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	1.13	2.8	3.07	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 01-May-1992	G8A-92 08-Sep-1992	G8A-92 27-Nov-1992	G8A-92 05-May-1993 (5)	G8A-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	8	4	4	--	--
Manganese, dissolved	mg/l	--	0.05	0.07	0.04	0.07	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	9	11	9	--	--
Silicon, dissolved	mg/l	--	--	8.7	15.7	12	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	274	333	326	--	--
Strontium, dissolved	mg/l	--	--	0.05	0.05	<0.01	--	--
Sulfur	mg/l	--	--	15	34	24	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	0.1	<0.01	0.18	--	--
Vanadium, dissolved	mg/l	--	--	0.02	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 03-Jun-1994 (5)	G8A-92 09-Sep-1994 (5)	G8A-92 24-Nov-1994 (5)	G8A-92 04-Jun-1995 (5)	G8A-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 03-Jun-1994 (5)	G8A-92 09-Sep-1994 (5)	G8A-92 24-Nov-1994 (5)	G8A-92 04-Jun-1995 (5)	G8A-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 07-Nov-1995 (5)	G8A-92 17-Jul-1996 (5)	G8A-92 22-Nov-1996 (5)	G8A-92 10-Jun-1997 (5)	G8A-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 07-Nov-1995 (5)	G8A-92 17-Jul-1996 (5)	G8A-92 22-Nov-1996 (5)	G8A-92 10-Jun-1997 (5)	G8A-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 11-Jun-1998 (5)	G8A-92 20-Aug-1998 (5)	G8A-92 25-May-1999 (5)	G8A-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8A-92 11-Jun-1998 (5)	G8A-92 20-Aug-1998 (5)	G8A-92 25-May-1999 (5)	G8A-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 01-May-1992 (9)	G8B-92 08-Sep-1992	G8B-92 27-Nov-1992	G8B-92 05-May-1993 (5)	G8B-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	306	300	--	--
Ammonia Nitrogen	mg/l	--	--	--	0.65	0.44	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	<1	1	--	--
Bromide	mg/l	--	--	--	0.6	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	--	30	21	--	--
Chloride	mg/l	--	250	--	45	33	--	--
Conductivity (Field)	uS/cm	--	--	--	800	725	--	--
Fluoride	mg/l	1.5	--	--	0.61	0.57	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	72	92	--	--
Nitrate as N	mg/l	10	--	--	0.19	0.31	--	--
Nitrite as N	mg/l	1	--	--	0.16	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	0.87	0.8	--	--
Nitrogen, Organic	mg/l	--	--	--	0.22	0.36	--	--
pH (Field)	-	--	--	--	7.6	7.4	--	--
Phosphate	mg/l	--	--	--	0.13	0.27	--	--
Phosphorus	mg/l	--	--	--	<0.1	<0.1	--	--
Sulphate	mg/l	--	500 (6)	--	62	52	--	--
Temperature (Field)	deg c	--	15	--	8	9	--	--
Total Dissolved Solids	mg/l	--	500	--	470	420	--	--
Total Organic Carbon	mg/l	--	--	--	12	9.4	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	2.11	0.14	--	--
Barium, dissolved	mg/l	1	--	--	<0.01	0.03	--	--
Beryllium, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	--	0.34	0.2	--	--
Cadmium, dissolved	mg/l	0.005	--	--	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	--	14	17	--	--
Chromium, dissolved	mg/l	0.05	--	--	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	--	0.03	<0.01	--	--
Copper, dissolved	mg/l	--	1	--	<0.01	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	--	0.98	0.06	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 01-May-1992 (9)	G8B-92 08-Sep-1992	G8B-92 27-Nov-1992	G8B-92 05-May-1993 (5)	G8B-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	--	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	--	9	12	--	--
Manganese, dissolved	mg/l	--	0.05	--	0.02	0.02	--	--
Molybdenum, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	--	6	7	--	--
Silicon, dissolved	mg/l	--	--	--	11	4	--	--
Silver, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	164	132	--	--
Strontium, dissolved	mg/l	--	--	--	0.12	<0.01	--	--
Sulfur	mg/l	--	--	--	23	19	--	--
Thallium, dissolved	mg/l	--	--	--	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	--	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	--	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	--	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.002	<0.002	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G8B-92 03-Jun-1994 [5]	G8B-92 09-Sep-1994 [5]	G8B-92 24-Nov-1994 [5]	G8B-92 04-Jun-1995 [5]	G8B-92 11-Sep-1995 [5]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 03-Jun-1994 (5)	G8B-92 09-Sep-1994 (5)	G8B-92 24-Nov-1994 (5)	G8B-92 04-Jun-1995 (5)	G8B-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 07-Nov-1995 (5)	G8B-92 17-Jul-1996 (5)	G8B-92 22-Nov-1996 (5)	G8B-92 10-Jun-1997 (5)	G8B-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 07-Nov-1995 (5)	G8B-92 17-Jul-1996 (5)	G8B-92 22-Nov-1996 (5)	G8B-92 10-Jun-1997 (5)	G8B-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 11-Jun-1998 (5)	G8B-92 20-Aug-1998 (5)	G8B-92 25-May-1999 (5)	G8B-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G8B-92 11-Jun-1998 (5)	G8B-92 20-Aug-1998 (5)	G8B-92 25-May-1999 (5)	G8B-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 01-May-1992	G9A-92 07-Sep-1992	G9A-92 27-Nov-1992	G9A-92 05-May-1993 (5)	G9A-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	580	550	616	--	--
Ammonia Nitrogen	mg/l	--	--	0.47	0.63	1.13	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	9	4	3	--	--
Bromide	mg/l	--	--	<0.5	<0.5	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	72	75	14	--	--
Chloride	mg/l	--	250	45	43	45	--	--
Conductivity (Field)	uS/cm	--	--	1589	1200	1100	--	--
Fluoride	mg/l	1.5	--	1.25	**1.65**	**1.95**	--	--
Hardness, Calcium Carbonate	mg/l	--	--	47	65	36	--	--
Nitrate as N	mg/l	10	--	<0.1	0.32	0.17	--	--
Nitrite as N	mg/l	1	--	<0.1	0.15	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.48	2.08	2	--	--
Nitrogen, Organic	mg/l	--	--	1.01	1.45	0.87	--	--
pH (Field)	-	--	--	7.5	7.3	7.7	--	--
Phosphate	mg/l	--	--	2	4.6	7.6	--	--
Phosphorus	mg/l	--	--	0.5	<0.1	<0.1	--	--
Sulphate	mg/l	--	500 (6)	43	30	41	--	--
Temperature (Field)	deg c	--	15	8	7	8	--	--
Total Dissolved Solids	mg/l	--	500	710	720	710	--	--
Total Organic Carbon	mg/l	--	--	27	28	28	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	1.96	4.75	1.55	--	--
Barium, dissolved	mg/l	1	--	0.04	0.03	0.03	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.75	0.91	0.83	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	9	16	9	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	0.01	0.05	0.02	--	--
Iron, dissolved	mg/l	--	0.3	1.38	4.01	1.48	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 01-May-1992	G9A-92 07-Sep-1992	G9A-92 27-Nov-1992	G9A-92 05-May-1993 (5)	G9A-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	0.004	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	6	6	4	--	--
Manganese, dissolved	mg/l	--	0.05	0.07	0.09	0.07	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	0.02	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	10	22	14	--	--
Silicon, dissolved	mg/l	--	--	10.4	18.2	10.7	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	310	285	308	--	--
Strontium, dissolved	mg/l	--	--	0.12	0.07	0.11	--	--
Sulfur	mg/l	--	--	16	9	13	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	0.12	<0.01	0.1	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.035	0.008	0.002	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G9A-92 03-Jun-1994 [5]	G9A-92 09-Sep-1994 [5]	G9A-92 24-Nov-1994 [5]	G9A-92 04-Jun-1995 [5]	G9A-92 11-Sep-1995 [5]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 03-Jun-1994 (5)	G9A-92 09-Sep-1994 (5)	G9A-92 24-Nov-1994 (5)	G9A-92 04-Jun-1995 (5)	G9A-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 07-Nov-1995 (5)	G9A-92 16-Jul-1996 (5)	G9A-92 22-Nov-1996 (5)	G9A-92 10-Jun-1997 (5)	G9A-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 07-Nov-1995 (5)	G9A-92 16-Jul-1996 (5)	G9A-92 22-Nov-1996 (5)	G9A-92 10-Jun-1997 (5)	G9A-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 11-Jun-1998 (5)	G9A-92 20-Aug-1998 (5)	G9A-92 25-May-1999 (5)	G9A-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9A-92 11-Jun-1998 (5)	G9A-92 20-Aug-1998 (5)	G9A-92 25-May-1999 (5)	G9A-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 01-May-1992	G9B-92 07-Sep-1992	G9B-92 27-Nov-1992	G9B-92 05-May-1993 (5)	G9B-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	266	244	252	--	--
Ammonia Nitrogen	mg/l	--	--	0.2	0.32	0.58	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	3	<1	2	--	--
Bromide	mg/l	--	--	<0.5	0.5	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	11	15	18	--	--
Chloride	mg/l	--	250	14	17	16	--	--
Conductivity (Field)	uS/cm	--	--	739	575	490	--	--
Fluoride	mg/l	1.5	--	0.75	0.61	0.65	--	--
Hardness, Calcium Carbonate	mg/l	--	--	63	77	87	--	--
Nitrate as N	mg/l	10	--	<0.1	0.11	0.71	--	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.46	0.46	0.58	--	--
Nitrogen, Organic	mg/l	--	--	0.26	0.14	0	--	--
pH (Field)	-	--	--	7.6	7.7	7.4	--	--
Phosphate	mg/l	--	--	0.48	0.36	0.48	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Sulphate	mg/l	--	500 (6)	10	8	12	--	--
Temperature (Field)	deg c	--	15	7	8	8	--	--
Total Dissolved Solids	mg/l	--	500	340	320	340	--	--
Total Organic Carbon	mg/l	--	--	6.2	6.3	5.7	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.48	0.8	0.49	--	--
Barium, dissolved	mg/l	1	--	0.03	0.03	0.04	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.32	0.29	0.26	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	12	16	20	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	0.28	0.64	0.36	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 01-May-1992	G9B-92 07-Sep-1992	G9B-92 27-Nov-1992	G9B-92 05-May-1993 (5)	G9B-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	8	9	9	--	--
Manganese, dissolved	mg/l	--	0.05	0.03	0.03	0.04	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	6	7	8	--	--
Silicon, dissolved	mg/l	--	--	6.3	8.8	8.1	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	95	96	87	--	--
Strontium, dissolved	mg/l	--	--	0.05	0.11	0.16	--	--
Sulfur	mg/l	--	--	4	4	6	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	0.04	<0.01	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	0.02	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 03-Jun-1994 (5)	G9B-92 09-Sep-1994 (5)	G9B-92 24-Nov-1994 (5)	G9B-92 04-Jun-1995 (5)	G9B-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 03-Jun-1994 (5)	G9B-92 09-Sep-1994 (5)	G9B-92 24-Nov-1994 (5)	G9B-92 04-Jun-1995 (5)	G9B-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 07-Nov-1995 (5)	G9B-92 17-Jul-1996 (5)	G9B-92 22-Nov-1996 (5)	G9B-92 10-Jun-1997 (5)	G9B-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 07-Nov-1995 (5)	G9B-92 17-Jul-1996 (5)	G9B-92 22-Nov-1996 (5)	G9B-92 10-Jun-1997 (5)	G9B-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 11-Jun-1998 (5)	G9B-92 20-Aug-1998 (5)	G9B-92 25-May-1999 (5)	G9B-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9B-92 11-Jun-1998 (5)	G9B-92 20-Aug-1998 (5)	G9B-92 25-May-1999 (5)	G9B-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 01-May-1992	G9C-92 07-Sep-1992	G9C-92 27-Nov-1992	G9C-92 05-May-1993	G9C-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	264	344	104	342	381
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	4	<1	--	--
Bromide	mg/l	--	--	1	1.8	1.8	--	--
Chemical Oxygen Demand	mg/l	--	--	25	30	13	36	45
Chloride	mg/l	--	250	57	89	22	108	137
Conductivity (Field)	uS/cm	--	--	966	950	350	920	1050
Dissolved Organic Carbon	mg/l	--	5	--	--	--	17	14
Fluoride	mg/l	1.5	--	0.08	0.08	0.07	--	--
Hardness, Calcium Carbonate	mg/l	--	--	284	434	128	439	470
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.19	0.69	<0.1	--	--
Nitrogen, Organic	mg/l	--	--	0.19	0.69	<0.1	--	--
pH (Field)	-	--	--	6.4	6.2	6.1	6.3	6.5
Phosphate	mg/l	--	--	0.2	0.17	0.17	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	12	8	30	--	--
Temperature (Field)	deg c	--	15	5	8	8	6	8
Total Dissolved Solids	mg/l	--	500	420	570	170	590	810
Total Organic Carbon	mg/l	--	--	9.5	20	4.6	25	17
Metals								
Aluminum, dissolved	mg/l	--	--	0.1	<0.03	0.07	1.23	<0.03
Barium, dissolved	mg/l	1	--	0.06	0.08	0.03	0.11	0.09
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.21	0.32	0.07	0.19	0.26
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	61	98	30	105	116
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.23	0.25	0.59	0.53	0.36

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 01-May-1992	G9C-92 07-Sep-1992	G9C-92 27-Nov-1992	G9C-92 05-May-1993	G9C-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	<0.002	0.005	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	32	46	13	43	44
Manganese, dissolved	mg/l	--	0.05	0.77	1.66	0.38	1.47	1.57
Molybdenum, dissolved	mg/l	--	--	0.04	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	2	4	2	2
Silicon, dissolved	mg/l	--	--	5.7	8	6	1.8	5.1
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	39	45	12	36	51
Strontium, dissolved	mg/l	--	--	0.33	0.55	0.23	0.63	0.68
Sulfur	mg/l	--	--	6	5	12	6	6
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 03-Jun-1994	G9C-92 08-Sep-1994	G9C-92 24-Nov-1994 (5)	G9C-92 04-Jun-1995	G9C-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	369	471	--	261	517
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	35	55	--	28	70
Chloride	mg/l	--	250	128	149	--	92	158
Conductivity (Field)	uS/cm	--	--	850	1150	--	850	1500
Dissolved Organic Carbon	mg/l	--	5	17.3	22.4	--	13.6	26.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	442	632	--	323	519
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.4	6.4	--	6.5	6.6
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	7.5	14	--	10	13
Total Dissolved Solids	mg/l	--	500	680	790	--	488	868
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.87	0.63	--	0.98	0.78

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 03-Jun-1994	G9C-92 08-Sep-1994	G9C-92 24-Nov-1994 (5)	G9C-92 04-Jun-1995	G9C-92 11-Sep-1995
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	1.59	2.24	--	0.96	2.35
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	52	65	--	42	88
Strontium, dissolved	mg/l	--	--	0.72	0.951	--	0.53	1
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 07-Nov-1995 (5)	G9C-92 16-Jul-1996	G9C-92 21-Nov-1996	G9C-92 10-Jun-1997	G9C-92 11-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	395	433	482	509
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	55	50	104	74
Chloride	mg/l	--	250	--	109	114	114	115
Conductivity (Field)	uS/cm	--	--	--	1080	790	880	1100
Dissolved Organic Carbon	mg/l	--	5	--	21.4	21.6	24.5	28.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	407	464	478	486
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	6.7	6.2	7	6.8
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	9	5	4.5	13
Total Dissolved Solids	mg/l	--	500	--	636	672	752	804
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	132	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	0.46	0.83	0.23	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 07-Nov-1995 (5)	G9C-92 16-Jul-1996	G9C-92 21-Nov-1996	G9C-92 10-Jun-1997	G9C-92 11-Sep-1997
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	36	--
Manganese, dissolved	mg/l	--	0.05	--	1.63	1.4	2.75	2.07
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	68	76	78	106
Strontium, dissolved	mg/l	--	--	--	0.764	0.735	0.899	0.916
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 11-Jun-1998	G9C-92 20-Aug-1998	G9C-92 25-May-1999	G9C-92 31-Aug-1999	G9C-92 30-May-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	531	612	750	882	794
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	55	76	83	93	40
Chloride	mg/l	--	250	111	122	133	150	104
Conductivity (Field)	uS/cm	--	--	1020	1420	1400	1600	1300
Dissolved Organic Carbon	mg/l	--	5	25	26	27.7	40.6	18.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	531	510	669	864	755
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	7	6.8	6.71	6.33	7.6
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	10
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	10	11	6	15	7
Total Dissolved Solids	mg/l	--	500	768	832	972	1160	1040
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	<0.05
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	210
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.36	0.21	0.25	0.33	0.75

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 11-Jun-1998	G9C-92 20-Aug-1998	G9C-92 25-May-1999	G9C-92 31-Aug-1999	G9C-92 30-May-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	56
Manganese, dissolved	mg/l	--	0.05	2.82	3.68	3.39	4.57	3.92
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	98	97	112	142	106
Strontium, dissolved	mg/l	--	--	0.914	1.15	1.12	1.56	1.21
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 17-Aug-2000				
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	266				
Ammonia Nitrogen	mg/l	--	--	--				
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--				
Bromide	mg/l	--	--	--				
Chemical Oxygen Demand	mg/l	--	--	31				
Chloride	mg/l	--	250	33				
Conductivity (Field)	uS/cm	--	--	636				
Dissolved Organic Carbon	mg/l	--	5	10.8				
Fluoride	mg/l	1.5	--	--				
Hardness, Calcium Carbonate	mg/l	--	--	194				
Nitrate as N	mg/l	10	--	--				
Nitrite as N	mg/l	1	--	--				
Nitrogen, Total Kjeldahl	mg/l	--	--	--				
Nitrogen, Organic	mg/l	--	--	--				
pH (Field)	-	--	--	6.12				
Phosphate	mg/l	--	--	--				
Phosphorus	mg/l	--	--	0.18				
Sulphate	mg/l	--	500 (6)	--				
Temperature (Field)	deg c	--	15	12.7				
Total Dissolved Solids	mg/l	--	500	392				
Total Organic Carbon	mg/l	--	--	--				
Metals								
Aluminum, dissolved	mg/l	--	--	0.07				
Barium, dissolved	mg/l	1	--	--				
Beryllium, dissolved	mg/l	--	--	--				
Boron, dissolved	mg/l	5	--	--				
Cadmium, dissolved	mg/l	0.005	--	--				
Calcium, dissolved	mg/l	--	--	53				
Chromium, dissolved	mg/l	0.05	--	--				
Cobalt, dissolved	mg/l	--	--	--				
Copper, dissolved	mg/l	--	1	--				
Iron, dissolved	mg/l	--	0.3	0.24				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G9C-92 17-Aug-2000				
Lead, dissolved	mg/l	0.01	--	--				
Magnesium, dissolved	mg/l	--	--	15				
Manganese, dissolved	mg/l	--	0.05	0.76				
Molybdenum, dissolved	mg/l	--	--	--				
Nickel, dissolved	mg/l	--	--	--				
Potassium, dissolved	mg/l	--	--	--				
Silicon, dissolved	mg/l	--	--	--				
Silver, dissolved	mg/l	--	--	--				
Sodium, dissolved	mg/l	--	200 (7)	39				
Strontium, dissolved	mg/l	--	--	0.243				
Sulfur	mg/l	--	--	--				
Thallium, dissolved	mg/l	--	--	--				
Tin, dissolved	mg/l	--	--	--				
Titanium, dissolved	mg/l	--	--	--				
Vanadium, dissolved	mg/l	--	--	--				
Zinc, dissolved	mg/l	--	5	--				
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--				

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 01-May-1992	G10A-92 07-Sep-1992	G10A-92 27-Nov-1992	G10A-92 05-May-1993 (5)	G10A-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	550	554	590	--	--
Ammonia Nitrogen	mg/l	--	--	0.35	0.37	0.45	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	15	22	27	--	--
Bromide	mg/l	--	--	<0.5	<0.5	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	96	93	83	--	--
Chloride	mg/l	--	250	90	31	31	--	--
Conductivity (Field)	uS/cm	--	--	1854	1200	1050	--	--
Fluoride	mg/l	1.5	--	1.45	1.5	**2**	--	--
Hardness, Calcium Carbonate	mg/l	--	--	32	28	32	--	--
Nitrate as N	mg/l	10	--	<0.1	0.33	0.1	--	--
Nitrite as N	mg/l	1	--	<0.1	0.19	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.47	1.51	1.49	--	--
Nitrogen, Organic	mg/l	--	--	1.12	1.14	1.04	--	--
pH (Field)	-	--	--	6.8	8	7.5	--	--
Phosphate	mg/l	--	--	3.5	6.1	3.9	--	--
Phosphorus	mg/l	--	--	1	1.4	<0.1	--	--
Sulphate	mg/l	--	500 (6)	60	43	29	--	--
Temperature (Field)	deg c	--	15	8	7	9	--	--
Total Dissolved Solids	mg/l	--	500	780	750	830	--	--
Total Organic Carbon	mg/l	--	--	32	34	32	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	3.07	15.57	1.59	--	--
Barium, dissolved	mg/l	1	--	0.04	0.09	0.04	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.81	1.11	0.84	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	8	8	8	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	0.03	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.01	0.02	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	2.01	11.29	1.44	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 01-May-1992	G10A-92 07-Sep-1992	G10A-92 27-Nov-1992	G10A-92 05-May-1993 (5)	G10A-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	3	2	3	--	--
Manganese, dissolved	mg/l	--	0.05	0.07	0.15	0.07	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	8	22	13	--	--
Silicon, dissolved	mg/l	--	--	12	42.2	10.4	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	333	307	279	--	--
Strontium, dissolved	mg/l	--	--	0.04	0.08	0.11	--	--
Sulfur	mg/l	--	--	13	14	12	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	0.07	--	--
Vanadium, dissolved	mg/l	--	--	0.02	0.02	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.005	<0.002	<0.002	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 03-Jun-1994 (5)	G10A-92 09-Sep-1994 (5)	G10A-92 24-Nov-1994 (5)	G10A-92 04-Jun-1995 (5)	G10A-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 03-Jun-1994 (5)	G10A-92 09-Sep-1994 (5)	G10A-92 24-Nov-1994 (5)	G10A-92 04-Jun-1995 (5)	G10A-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 07-Nov-1995 (5)	G10A-92 17-Jul-1996 (5)	G10A-92 22-Nov-1996 (5)	G10A-92 10-Jun-1997 (5)	G10A-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 07-Nov-1995 (5)	G10A-92 17-Jul-1996 (5)	G10A-92 22-Nov-1996 (5)	G10A-92 10-Jun-1997 (5)	G10A-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 11-Jun-1998 (5)	G10A-92 20-Aug-1998 (5)	G10A-92 25-May-1999 (5)	G10A-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10A-92 11-Jun-1998 (5)	G10A-92 20-Aug-1998 (5)	G10A-92 25-May-1999 (5)	G10A-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 01-May-1992	G10B-92 07-Sep-1992	G10B-92 27-Nov-1992	G10B-92 05-May-1993 (5)	G10B-92 10-Nov-1993 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	221	230	220	--	--
Ammonia Nitrogen	mg/l	--	--	0.14	0.77	0.55	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	2	<1	--	--
Bromide	mg/l	--	--	<0.5	<0.5	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	27	15	24	--	--
Chloride	mg/l	--	250	11	5	4	--	--
Conductivity (Field)	uS/cm	--	--	874	750	675	--	--
Fluoride	mg/l	1.5	--	0.5	0.48	0.47	--	--
Hardness, Calcium Carbonate	mg/l	--	--	41	40	44	--	--
Nitrate as N	mg/l	10	--	<0.1	0.2	0.28	--	--
Nitrite as N	mg/l	1	--	<0.1	0.14	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.42	0.8	0.75	--	--
Nitrogen, Organic	mg/l	--	--	0.28	0.03	0.2	--	--
pH (Field)	-	--	--	7.4	7.5	8	--	--
Phosphate	mg/l	--	--	0.28	0.13	0.2	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Sulphate	mg/l	--	500 (6)	60	38	91	--	--
Temperature (Field)	deg c	--	15	7	8	8	--	--
Total Dissolved Solids	mg/l	--	500	340	380	429	--	--
Total Organic Carbon	mg/l	--	--	6.6	6.3	5.7	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.3	1.1	8.08	--	--
Barium, dissolved	mg/l	1	--	0.03	0.05	0.04	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.2	0.19	0.16	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	--	--
Calcium, dissolved	mg/l	--	--	10	11	11	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	--	--
Iron, dissolved	mg/l	--	0.3	0.22	0.62	2.71	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 01-May-1992	G10B-92 07-Sep-1992	G10B-92 27-Nov-1992	G10B-92 05-May-1993 (5)	G10B-92 10-Nov-1993 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	4	3	4	--	--
Manganese, dissolved	mg/l	--	0.05	0.05	0.04	0.04	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Potassium, dissolved	mg/l	--	--	4	6	6	--	--
Silicon, dissolved	mg/l	--	--	6	11	27.7	--	--
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	117	146	125	--	--
Strontium, dissolved	mg/l	--	--	0.07	0.16	0.16	--	--
Sulfur	mg/l	--	--	15	30	44	--	--
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	0.06	--	--
Vanadium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.006	<0.002	<0.002	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 03-Jun-1994 (5)	G10B-92 09-Sep-1994 (5)	G10B-92 24-Nov-1994 (5)	G10B-92 04-Jun-1995 (5)	G10B-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 03-Jun-1994 (5)	G10B-92 09-Sep-1994 (5)	G10B-92 24-Nov-1994 (5)	G10B-92 04-Jun-1995 (5)	G10B-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 07-Nov-1995 (5)	G10B-92 17-Jul-1996 (5)	G10B-92 22-Nov-1996 (5)	G10B-92 10-Jun-1997 (5)	G10B-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 07-Nov-1995 (5)	G10B-92 17-Jul-1996 (5)	G10B-92 22-Nov-1996 (5)	G10B-92 10-Jun-1997 (5)	G10B-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 11-Jun-1998 (5)	G10B-92 20-Aug-1998 (5)	G10B-92 25-May-1999 (5)	G10B-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10B-92 11-Jun-1998 (5)	G10B-92 20-Aug-1998 (5)	G10B-92 25-May-1999 (5)	G10B-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 01-May-1992	G10C-92 07-Sep-1992	G10C-92 27-Nov-1992	G10C-92 05-May-1993	G10C-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	38	96	88	67	113
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	1	<1	<1	--	--
Bromide	mg/l	--	--	<0.5	1.3	0.9	--	--
Chemical Oxygen Demand	mg/l	--	--	16	13	13	10	18
Chloride	mg/l	--	250	4	39	24	14	30
Conductivity (Field)	uS/cm	--	--	191	445	290	230	235
Dissolved Organic Carbon	mg/l	--	5	--	--	--	4.1	7
Fluoride	mg/l	1.5	--	0.12	0.07	0.09	--	--
Hardness, Calcium Carbonate	mg/l	--	--	43	160	112	70	121
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	0.13	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Nitrogen, Organic	mg/l	--	--	<0.1	<0.1	<0.1	--	--
pH (Field)	-	--	--	6.1	8	6.5	6.2	6.9
Phosphate	mg/l	--	--	0.17	0.15	0.18	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	16	45	26	--	--
Temperature (Field)	deg c	--	15	6	8	9	7	3.5
Total Dissolved Solids	mg/l	--	500	100	280	160	140	200
Total Organic Carbon	mg/l	--	--	2.7	4.5	5.1	4.6	7
Metals								
Aluminum, dissolved	mg/l	--	--	0.41	0.46	0.21	0.8	0.53
Barium, dissolved	mg/l	1	--	0.03	0.04	0.03	0.03	0.02
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.07	0.13	0.04	0.01	0.07
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	9	33	25	15	27
Chromium, dissolved	mg/l	0.05	--	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.31	1.87	0.67	1.26	0.68

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 01-May-1992	G10C-92 07-Sep-1992	G10C-92 27-Nov-1992	G10C-92 05-May-1993	G10C-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	0.004	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	5	19	12	8	13
Manganese, dissolved	mg/l	--	0.05	0.04	0.09	0.06	0.05	0.08
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	0.05	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	1	2	2	2	2
Silicon, dissolved	mg/l	--	--	3.6	8.4	4.6	1.4	3.7
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	10	27	18	21	20
Strontium, dissolved	mg/l	--	--	<0.01	0.2	0.16	<0.01	<0.01
Sulfur	mg/l	--	--	6	16	11	8	6
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	0.02	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	0.02	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 03-Jun-1994	G10C-92 08-Sep-1994	G10C-92 24-Nov-1994 (5)	G10C-92 04-Jun-1995	G10C-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	70	139	--	92	145
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	20	--	20	24
Chloride	mg/l	--	250	37	44	--	42	49
Conductivity (Field)	uS/cm	--	--	270	400	--	350	600
Dissolved Organic Carbon	mg/l	--	5	9.2	8.7	--	9.9	9.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	120	167	--	133	187
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.5	6.3	--	6.3	7
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	13.5	17	--	12	16
Total Dissolved Solids	mg/l	--	500	190	250	--	224	288
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.01	0.47	--	1.35	0.46

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 03-Jun-1994	G10C-92 08-Sep-1994	G10C-92 24-Nov-1994 (5)	G10C-92 04-Jun-1995	G10C-92 11-Sep-1995
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.06	0.07	--	0.08	0.12
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	11	18	--	26	31
Strontium, dissolved	mg/l	--	--	0.12	0.176	--	0.153	0.25
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 07-Nov-1995 (5)	G10C-92 17-Jul-1996 (8)			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	--	--			
Conductivity (Field)	uS/cm	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	--	--			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	--	--	--			
Nitrate as N	mg/l	10	--	--	--			
Nitrite as N	mg/l	1	--	--	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
pH (Field)	-	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphorus	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	--	--			
Temperature (Field)	deg c	--	15	--	--			
Total Dissolved Solids	mg/l	--	500	--	--			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, dissolved	mg/l	--	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	--	--			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	--	--			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	--	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G10C-92 07-Nov-1995 (5)	G10C-92 17-Jul-1996 (8)			
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	--	--			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--			

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G11-92 01-May-1992	G11-92 07-Sep-1992	G11-92 28-Nov-1992	G11-92 03-May-1993	G11-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	47	64	56	49	38
Ammonia Nitrogen	mg/l	--	--	0.1	0.14	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	--	--
Bromide	mg/l	--	--	<0.5	<0.5	1.1	--	--
Chemical Oxygen Demand	mg/l	--	--	16	38	16	16	28
Chloride	mg/l	--	250	13	13	14	13	17
Conductivity (Field)	uS/cm	--	--	305	200	170	220	170
Dissolved Organic Carbon	mg/l	--	5	--	--	--	4.9	10
Fluoride	mg/l	1.5	--	0.08	0.06	0.06	--	--
Hardness, Calcium Carbonate	mg/l	--	--	84	74	65	68	57
Nitrate as N	mg/l	10	--	1.05	0.47	<0.1	0.32	<0.1
Nitrite as N	mg/l	1	--	<0.1	0.14	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.13	0.19	0.24	--	--
Nitrogen, Organic	mg/l	--	--	0.03	0.05	0.24	--	--
pH (Field)	-	--	--	6.2	6.3	6.5	5.3	6.8
Phosphate	mg/l	--	--	0.27	0.14	0.17	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	32	23	15	--	--
Temperature (Field)	deg c	--	15	8	8	6	7	7
Total Dissolved Solids	mg/l	--	500	160	130	106	130	100
Total Organic Carbon	mg/l	--	--	5	5.5	6.3	5.8	10
Metals								
Aluminum, dissolved	mg/l	--	--	0.29	0.95	0.69	0.34	0.31
Barium, dissolved	mg/l	1	--	0.01	0.02	0.02	<0.01	0.01
Beryllium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	<0.01	0.1	0.05	0.04	0.08
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	19	18	16	19	13
Chromium, dissolved	mg/l	0.05	--	<0.01	0.04	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.26	0.61	0.49	0.24	0.34

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 01-May-1992	G11-92 07-Sep-1992	G11-92 28-Nov-1992	G11-92 03-May-1993	G11-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	<0.002	0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	9	7	6	5	6
Manganese, dissolved	mg/l	--	0.05	0.05	0.03	0.03	0.02	0.03
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	9	4	4	1
Silicon, dissolved	mg/l	--	--	2.5	4.5	3.8	2.2	1.9
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	13	15	14	15	12
Strontium, dissolved	mg/l	--	--	0.06	0.14	0.18	<0.01	<0.01
Sulfur	mg/l	--	--	11	6	9	11	7
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	0.13	<0.01	<0.01	0.02
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	0.006	<0.002	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 03-Jun-1994	G11-92 08-Sep-1994	G11-92 24-Nov-1994 (5)	G11-92 04-Jun-1995	G11-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	35	48	--	60	71
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	25	48	--	13	32
Chloride	mg/l	--	250	17	20	--	19	21
Conductivity (Field)	uS/cm	--	--	155	160	--	190	265
Dissolved Organic Carbon	mg/l	--	5	11.9	18.8	--	7.1	11.1
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	66	56	--	87	99
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.3	6.2	--	6.2	6.8
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	8.5	14	--	12	15
Total Dissolved Solids	mg/l	--	500	100	110	--	128	164
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.39	0.91	--	0.84	0.26

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 03-Jun-1994	G11-92 08-Sep-1994	G11-92 24-Nov-1994 (5)	G11-92 04-Jun-1995	G11-92 11-Sep-1995
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	0.03	--	0.04	0.05
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	4	5	--	11	14
Strontium, dissolved	mg/l	--	--	0.11	0.099	--	0.145	0.185
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 07-Nov-1995 (5)	G11-92 17-Jul-1996	G11-92 22-Nov-1996	G11-92 10-Jun-1997	G11-92 12-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	102	67	71	77
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	37	27	26	31
Chloride	mg/l	--	250	--	23	24	15	18
Conductivity (Field)	uS/cm	--	--	--	100	150	170	200
Dissolved Organic Carbon	mg/l	--	5	--	14.7	10.1	7.3	12.2
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	86	92	91	78
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	8	6.5	7.8	-- (11)
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	11	5	6	15
Total Dissolved Solids	mg/l	--	500	--	148	148	156	140
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	20	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	1.68	0.77	0.67	0.86

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 07-Nov-1995 (5)	G11-92 17-Jul-1996	G11-92 22-Nov-1996	G11-92 10-Jun-1997	G11-92 12-Sep-1997
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	10	--
Manganese, dissolved	mg/l	--	0.05	--	0.12	0.1	0.12	0.11
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	22	20	9	11
Strontium, dissolved	mg/l	--	--	--	0.132	0.123	0.141	0.135
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G11-92 06-Apr-1998	G11-92 11-Jun-1998	G11-92 20-Aug-1998	G11-92 23-Apr-1999	G11-92 25-May-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	60	73	91	71	88
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	21	10	22	92	37
Chloride	mg/l	--	250	21	18	20	20	17
Conductivity (Field)	uS/cm	--	--	230	180	200	265	250
Dissolved Organic Carbon	mg/l	--	5	8.1	7.7	9.6	16.3	10.5
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	137	94	93	111	135
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.5	6.6	6	6.65	6.5
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Temperature (Field)	deg c	--	15	5	13	16	9	11
Total Dissolved Solids	mg/l	--	500	164	128	152	168	196
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.7	0.9	2.01	5.4	0.94

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 06-Apr-1998	G11-92 11-Jun-1998	G11-92 20-Aug-1998	G11-92 23-Apr-1999	G11-92 25-May-1999
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.14	0.14	0.22	0.39	0.2
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	13	11	16	17	18
Strontium, dissolved	mg/l	--	--	0.133	0.13	0.146	0.114	0.133
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 25-Jun-1999	G11-92 29-Jul-1999	G11-92 31-Aug-1999	G11-92 01-Oct-1999	G11-92 27-Oct-1999
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	87	87	83	88	78
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	34	28	30	30	3
Chloride	mg/l	--	250	16	18	19	19	22
Conductivity (Field)	uS/cm	--	--	250	250	210	244	259
Dissolved Organic Carbon	mg/l	--	5	10	10.5	12	9.4	9.6
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	103	99	103	107	96
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.4	5.7	5.6	6.48	6.67
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	15	15	14	8	11
Total Dissolved Solids	mg/l	--	500	292	168	156	164	164
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	22
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	5.71	4.26	6.82	5.14	1.52

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 25-Jun-1999	G11-92 29-Jul-1999	G11-92 31-Aug-1999	G11-92 01-Oct-1999	G11-92 27-Oct-1999
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	10
Manganese, dissolved	mg/l	--	0.05	0.28	0.25	0.31	0.26	0.23
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	15	15	17	17	17
Strontium, dissolved	mg/l	--	--	0.134	0.132	0.141	0.147	0.157
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 29-Nov-1999	G11-92 21-Dec-1999	G11-92 28-Apr-2000	G11-92 31-May-2000	G11-92 29-Jun-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	68	65	57	68	91
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	13	33	25	40
Chloride	mg/l	--	250	26	24	19	16	15
Conductivity (Field)	uS/cm	--	--	268	180	315	270	280
Dissolved Organic Carbon	mg/l	--	5	8.9	8.4	9.2	9	9.3
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	109	105	100	103	91
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.61	6.72	6.28	7.01	5.8
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	0.82	1.12	0.23
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	7	6	8.6	9	14
Total Dissolved Solids	mg/l	--	500	164	180	192	160	192
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	0.39	0.62	0.5
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	24	24	22	23	20
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.97	2.2	3.9	<0.01	2.53

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 29-Nov-1999	G11-92 21-Dec-1999	G11-92 28-Apr-2000	G11-92 31-May-2000	G11-92 29-Jun-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	12	11	11	11	10
Manganese, dissolved	mg/l	--	0.05	0.24	0.25	0.39	<0.01	0.26
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	16	16	15	15	14
Strontium, dissolved	mg/l	--	--	0.161	0.173	0.121	0.371	0.144
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 27-Jul-2000	G11-92 18-Aug-2000	G11-92 27-Sep-2000	G11-92 30-Oct-2000	G11-92 01-Dec-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	108	117	81	89	69
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	23	28	27	23	18
Chloride	mg/l	--	250	21	18	19	19	24
Conductivity (Field)	uS/cm	--	--	228	203	229	198	320
Dissolved Organic Carbon	mg/l	--	5	10	9.5	10.5	8.8	7.9
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	90	96	87	87	98
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	5.54	7	6.41	6.43	6.5
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.23	0.06	0.12	0.69	0.41
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	16.4	18.2	13.5	10.4	4
Total Dissolved Solids	mg/l	--	500	256	200	128	148	196
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.33	0.37	0.54	0.23	0.16
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	21	22	20	20	21
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	1.83	3.01	1.91	1.57	2.45

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 27-Jul-2000	G11-92 18-Aug-2000	G11-92 27-Sep-2000	G11-92 30-Oct-2000	G11-92 01-Dec-2000
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	9	10	9	9	11
Manganese, dissolved	mg/l	--	0.05	0.19	0.25	0.21	0.2	0.27
Mercury, dissolved	mg/l	0.001	--	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	15	16	15	14	15
Strontium, dissolved	mg/l	--	--	0.132	0.132	0.123	0.12	0.129
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G11-92 21-Dec-2000	G11-92 28-May-2001	G11-92 08-Aug-2001 [9]	G11-92 04-Apr-2002	G11-92 06-Aug-2002 [10]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	80	82	--	17	--
Ammonia Nitrogen	mg/l	--	--	--	0.47	--	0.13	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	<1	--	3	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	24	18	--	38	--
Chloride	mg/l	--	250	19	27	--	9	--
Conductivity (Field)	uS/cm	--	--	25	200	--	320	--
Dissolved Organic Carbon	mg/l	--	5	4.8	6.3	--	15.9	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	87	90	--	119	--
Nitrate as N	mg/l	10	--	--	<0.1	--	4.65	--
Nitrite as N	mg/l	1	--	--	<0.1	--	<0.1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	0.56	--	0.95	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	7.5	7.1	--	6.4	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.3	0.04	--	0.72	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	<0.01	--
Sulphate	mg/l	--	500 [6]	--	16	--	75	--
Temperature (Field)	deg c	--	15	3	10	--	7	--
Total Dissolved Solids	mg/l	--	500	176	124	--	177	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.1	0.06	--	0.13	--
Barium, dissolved	mg/l	1	--	--	0.02	--	0.03	--
Beryllium, dissolved	mg/l	--	--	--	<0.002	--	<0.002	--
Boron, dissolved	mg/l	5	--	--	0.06	--	0.08	--
Cadmium, dissolved	mg/l	0.005	--	--	0.0002	--	0.0001	--
Calcium, dissolved	mg/l	--	--	20	21	--	31	--
Chromium, dissolved	mg/l	0.05	--	--	0.006	--	0.002	--
Cobalt, dissolved	mg/l	--	--	--	0.0007	--	0.0002	--
Copper, dissolved	mg/l	--	1	--	<0.001	--	0.005	--
Iron, dissolved	mg/l	--	0.3	2.57	1.65	--	0.19	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G11-92 21-Dec-2000	G11-92 28-May-2001	G11-92 08-Aug-2001 [9]	G11-92 04-Apr-2002	G11-92 06-Aug-2002 [10]
Lead, dissolved	mg/l	0.01	--	--	<0.001	--	<0.001	--
Magnesium, dissolved	mg/l	--	--	9	9	--	10	--
Manganese, dissolved	mg/l	--	0.05	0.25	0.25	--	0.11	--
Mercury, dissolved	mg/l	0.001	--	--	<0.0001	--	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	--	<0.01	--	<0.01	--
Nickel, dissolved	mg/l	--	--	--	<0.01	--	<0.01	--
Potassium, dissolved	mg/l	--	--	--	2	--	2	--
Silicon, dissolved	mg/l	--	--	--	2.19	--	2.64	--
Silver, dissolved	mg/l	--	--	--	0.0006	--	<0.0001	--
Sodium, dissolved	mg/l	--	200 [7]	12	14	--	5	--
Strontium, dissolved	mg/l	--	--	0.132	0.134	--	0.147	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	<0.001	--	<0.001	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	<0.01	--	<0.01	--
Vanadium, dissolved	mg/l	--	--	--	<0.001	--	0.005	--
Zinc, dissolved	mg/l	--	5	--	0.01	--	<0.01	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	<0.001	--	0.001	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G11-92 13-May-2003	G11-92 26-Aug-2003	G11-92 26-May-2004	G11-92 26-May-2005	G11-92 25-Aug-2005 [9]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	37	264	70	61	--
Ammonia Nitrogen	mg/l	--	--	0.24	0.19	<0.03	3.1	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	2	<0.5	21	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	42	44	40	620	--
Chloride	mg/l	--	250	8	11	26.9	36	--
Conductivity (Field)	uS/cm	--	--	170	190	235	253	--
Dissolved Organic Carbon	mg/l	--	5	17.8	14	16.9	31.2	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	71	317	108.8	62	--
Nitrate as N	mg/l	10	--	3.57	<0.1	0.3	<1	--
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.2	<1	--
Nitrogen, Total Kjeldahl	mg/l	--	--	2.89	0.77	0.82	11.6	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	7.5	7.3	7.72	7.5	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	0.84	1.45	<0.05	6.6	--
Phosphorus (dissolved reactive)	mg/l	--	--	0.04	0.03	0.149	0.03	--
Sulphate	mg/l	--	500 [6]	35	124	35.9	35	--
Temperature (Field)	deg c	--	15	7	11	9.5	9	--
Total Dissolved Solids	mg/l	--	500	142	498	184	164	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.07	<0.01	0.07	0.03	--
Barium, dissolved	mg/l	1	--	0.02	0.02	0.03	0.03	--
Beryllium, dissolved	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	--
Boron, dissolved	mg/l	5	--	0.05	<0.05	0.063	0.07	--
Cadmium, dissolved	mg/l	0.005	--	<0.0001	<0.0001	<0.0001	<0.0001	--
Calcium, dissolved	mg/l	--	--	17	71	25.2	15	--
Chromium, dissolved	mg/l	0.05	--	0.001	0.01	<0.005	<0.001	--
Cobalt, dissolved	mg/l	--	--	0.0004	0.0003	0.0001	0.0006	--
Copper, dissolved	mg/l	--	1	0.003	0.004	0.0027	0.009	--
Iron, dissolved	mg/l	--	0.3	3.43	0.41	0.07	1.25	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 13-May-2003	G11-92 26-Aug-2003	G11-92 26-May-2004	G11-92 26-May-2005	G11-92 25-Aug-2005 (9)
Lead, dissolved	mg/l	0.01	--	<0.001	0.001	<0.0005	<0.001	--
Magnesium, dissolved	mg/l	--	--	7	34	11.1	6	--
Manganese, dissolved	mg/l	--	0.05	0.211	0.128	0.16	0.24	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	<0.0001	<0.0001	<0.0001	--
Molybdenum, dissolved	mg/l	--	--	<0.005	<0.005	<0.001	<0.005	--
Nickel, dissolved	mg/l	--	--	<0.005	<0.005	<0.001	<0.005	--
Potassium, dissolved	mg/l	--	--	2	7	1.5	3	--
Silicon, dissolved	mg/l	--	--	2.4	3.1	2.01	2.6	--
Silver, dissolved	mg/l	--	--	<0.0001	<0.0001	<0.0001	<0.0001	--
Sodium, dissolved	mg/l	--	200 (7)	12	20	13.4	27	--
Strontium, dissolved	mg/l	--	--	0.114	0.309	0.16	0.15	--
Sulfur	mg/l	--	--	--	--	12.4	11.7	--
Thallium, dissolved	mg/l	--	--	<0.001	<0.001	<0.00005	<0.0001	--
Tin, dissolved	mg/l	--	--	--	--	<0.001	--	--
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.005	<0.01	--
Vanadium, dissolved	mg/l	--	--	0.006	0.004	0.0048	0.002	--
Zinc, dissolved	mg/l	--	5	0.008	<0.005	<0.005	0.03	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	<0.001	<0.001	<0.001	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G11-92 01-Jun-2006	G11-92 07-Sep-2006 [9]			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	169	--			
Ammonia Nitrogen	mg/l	--	--	0.54	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	5	--			
Bromide	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	96	--			
Chloride	mg/l	--	250	52	--			
Conductivity (Field)	uS/cm	--	--	410	--			
Dissolved Organic Carbon	mg/l	--	5	34.7	--			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	--	158	--			
Nitrate as N	mg/l	10	--	<0.1	--			
Nitrite as N	mg/l	1	--	<0.1	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	2.01	--			
Nitrogen, Organic	mg/l	--	--	--	--			
pH (Field)	-	--	--	6.8	--			
Phosphate	mg/l	--	--	--	--			
Phosphorus	mg/l	--	--	0.52	--			
Phosphorus (dissolved reactive)	mg/l	--	--	0.05	--			
Sulphate	mg/l	--	500 [6]	7	--			
Temperature (Field)	deg c	--	15	19	--			
Total Dissolved Solids	mg/l	--	500	332	--			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, dissolved	mg/l	--	--	0.06	--			
Barium, dissolved	mg/l	1	--	0.06	--			
Beryllium, dissolved	mg/l	--	--	<0.001	--			
Boron, dissolved	mg/l	5	--	0.2	--			
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--			
Calcium, dissolved	mg/l	--	--	37	--			
Chromium, dissolved	mg/l	0.05	--	0.002	--			
Cobalt, dissolved	mg/l	--	--	0.0013	--			
Copper, dissolved	mg/l	--	1	<0.001	--			
Iron, dissolved	mg/l	--	0.3	3.8	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G11-92 01-Jun-2006	G11-92 07-Sep-2006 (9)			
Lead, dissolved	mg/l	0.01	--	<0.001	--			
Magnesium, dissolved	mg/l	--	--	16	--			
Manganese, dissolved	mg/l	--	0.05	1.13	--			
Mercury, dissolved	mg/l	0.001	--	<0.0001	--			
Molybdenum, dissolved	mg/l	--	--	<0.005	--			
Nickel, dissolved	mg/l	--	--	0.005	--			
Potassium, dissolved	mg/l	--	--	6	--			
Silicon, dissolved	mg/l	--	--	2	--			
Silver, dissolved	mg/l	--	--	<0.0001	--			
Sodium, dissolved	mg/l	--	200 (7)	34	--			
Strontium, dissolved	mg/l	--	--	0.259	--			
Sulfur	mg/l	--	--	2.3	--			
Thallium, dissolved	mg/l	--	--	<0.0001	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	<0.01	--			
Vanadium, dissolved	mg/l	--	--	0.002	--			
Zinc, dissolved	mg/l	--	5	<0.01	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.001	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 30-Apr-1992	G14-92 07-Sep-1992	G14-92 27-Nov-1992	G14-92 05-May-1993	G14-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	268	488	16	54	254
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	2	1	<1	--	--
Bromide	mg/l	--	--	0.6	1.8	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	14	15	8	34	40
Chloride	mg/l	--	250	48	109	6	14	71
Conductivity (Field)	uS/cm	--	--	966	1300	120	500	900
Dissolved Organic Carbon	mg/l	--	5	--	--	--	12	14
Fluoride	mg/l	1.5	--	0.09	0.08	0.08	--	--
Hardness, Calcium Carbonate	mg/l	--	--	290	488	51	57	276
Nitrate as N	mg/l	10	--	0.41	0.92	<0.1	0.16	1.9
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.53	1.05	<0.1	--	--
Nitrogen, Organic	mg/l	--	--	0.53	1.05	<0.1	--	--
pH (Field)	-	--	--	6.4	6.4	6.2	5.9	6.7
Phosphate	mg/l	--	--	0.13	0.11	<0.1	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	25	20	44	--	--
Temperature (Field)	deg c	--	15	5	8	9	7	7.5
Total Dissolved Solids	mg/l	--	500	420	760	80	130	470
Total Organic Carbon	mg/l	--	--	18.5	27	4.2	14	15
Metals								
Aluminum, dissolved	mg/l	--	--	0.09	0.53	0.2	1.1	<0.03
Barium, dissolved	mg/l	1	--	0.09	0.18	0.02	0.11	0.03
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.13	0.28	0.01	0.09	0.08
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	65	95	14	13	66
Chromium, dissolved	mg/l	0.05	--	<0.01	0.03	0.01	<0.01	0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	0.01	<0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.1	0.4	0.15	0.04	0.15

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 30-Apr-1992	G14-92 07-Sep-1992	G14-92 27-Nov-1992	G14-92 05-May-1993	G14-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	31	61	4	6	27
Manganese, dissolved	mg/l	--	0.05	1.05	1.44	0.13	0.86	0.39
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	3	1	3	2
Silicon, dissolved	mg/l	--	--	3.6	6.6	7.1	1.3	4.2
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	44	89	7	19	57
Strontium, dissolved	mg/l	--	--	0.45	0.7	0.11	0.45	0.22
Sulfur	mg/l	--	--	10	11	14	10	13
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	0.01	<0.01	<0.01	<0.01	<0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.004	<0.002	<0.002	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G14-92 03-Jun-1994 [5]	G14-92 09-Sep-1994 [5]	G14-92 24-Nov-1994 [5]	G14-92 04-Jun-1995 [5]	G14-92 11-Sep-1995 [5]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 [6]	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 03-Jun-1994 (5)	G14-92 09-Sep-1994 (5)	G14-92 24-Nov-1994 (5)	G14-92 04-Jun-1995 (5)	G14-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 07-Nov-1995 (5)	G14-92 17-Jul-1996 (5)	G14-92 22-Nov-1996 (5)	G14-92 10-Jun-1997 (5)	G14-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 07-Nov-1995 (5)	G14-92 17-Jul-1996 (5)	G14-92 22-Nov-1996 (5)	G14-92 10-Jun-1997 (5)	G14-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 11-Jun-1998 (5)	G14-92 20-Aug-1998 (5)	G14-92 25-May-1999 (5)	G14-92 31-Aug-1999 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	
Bromide	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	
Chloride	mg/l	--	250	--	--	--	--	
Conductivity (Field)	uS/cm	--	--	--	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	
Nitrate as N	mg/l	10	--	--	--	--	--	
Nitrite as N	mg/l	1	--	--	--	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
pH (Field)	-	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphorus	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 (6)	--	--	--	--	
Temperature (Field)	deg c	--	15	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	--	--	--	--	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	
Barium, dissolved	mg/l	1	--	--	--	--	--	
Beryllium, dissolved	mg/l	--	--	--	--	--	--	
Boron, dissolved	mg/l	5	--	--	--	--	--	
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	
Calcium, dissolved	mg/l	--	--	--	--	--	--	
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	
Cobalt, dissolved	mg/l	--	--	--	--	--	--	
Copper, dissolved	mg/l	--	1	--	--	--	--	
Iron, dissolved	mg/l	--	0.3	--	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G14-92 11-Jun-1998 (5)	G14-92 20-Aug-1998 (5)	G14-92 25-May-1999 (5)	G14-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	
Magnesium, dissolved	mg/l	--	--	--	--	--	--	
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	
Nickel, dissolved	mg/l	--	--	--	--	--	--	
Potassium, dissolved	mg/l	--	--	--	--	--	--	
Silicon, dissolved	mg/l	--	--	--	--	--	--	
Silver, dissolved	mg/l	--	--	--	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	
Strontium, dissolved	mg/l	--	--	--	--	--	--	
Sulfur	mg/l	--	--	--	--	--	--	
Thallium, dissolved	mg/l	--	--	--	--	--	--	
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	--	--	--	--	
Vanadium, dissolved	mg/l	--	--	--	--	--	--	
Zinc, dissolved	mg/l	--	5	--	--	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 30-Apr-1992	G15-92 07-Sep-1992	G15-92 27-Nov-1992	G15-92 05-May-1993	G15-92 10-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	62	21	12	54	16
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	--	--
Bromide	mg/l	--	--	<0.5	0.9	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	11	65	8	21	5
Chloride	mg/l	--	250	60	23	11	59	47
Conductivity (Field)	uS/cm	--	--	587	160	90	390	230
Dissolved Organic Carbon	mg/l	--	5	--	--	--	6.4	2.4
Fluoride	mg/l	1.5	--	0.07	0.05	0.06	--	--
Hardness, Calcium Carbonate	mg/l	--	--	124	37	26	101	65
Nitrate as N	mg/l	10	--	0.64	0.12	<0.1	<0.1	1.16
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.12	<0.1	<0.1	--	--
Nitrogen, Organic	mg/l	--	--	0.12	<0.1	<0.1	--	--
pH (Field)	-	--	--	6	6.2	6.2	6	6.4
Phosphate	mg/l	--	--	0.1	0.21	0.39	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	30	13	15	--	--
Temperature (Field)	deg c	--	15	5	8	9	6	6.5
Total Dissolved Solids	mg/l	--	500	240	100	50	210	140
Total Organic Carbon	mg/l	--	--	6.7	3	2	7.7	2.6
Metals								
Aluminum, dissolved	mg/l	--	--	0.12	0.3	0.13	0.39	<0.03
Barium, dissolved	mg/l	1	--	0.09	0.03	0.03	0.15	0.07
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.11	0.1	0.03	0.05	0.05
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	30	10	7	24	16
Chromium, dissolved	mg/l	0.05	--	<0.01	0.02	0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	0.31	0.15	0.08	0.01	0.08

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 30-Apr-1992	G15-92 07-Sep-1992	G15-92 27-Nov-1992	G15-92 05-May-1993	G15-92 10-Nov-1993
Lead, dissolved	mg/l	0.01	--	<0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	12	3	2	10	6
Manganese, dissolved	mg/l	--	0.05	0.11	0.05	0.04	0.06	0.03
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	9	7	3	9	7
Silicon, dissolved	mg/l	--	--	2.9	5.7	4.9	1	3.6
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	28	13	7	19	13
Strontium, dissolved	mg/l	--	--	0.19	0.09	0.12	0.35	<0.01
Sulfur	mg/l	--	--	10	5	8	9	6
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.01	<0.01	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	0.01
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 03-Jun-1994 (5)	G15-92 09-Sep-1994 (5)	G15-92 24-Nov-1994 (5)	G15-92 04-Jun-1995 (5)	G15-92 11-Sep-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 03-Jun-1994 (5)	G15-92 09-Sep-1994 (5)	G15-92 24-Nov-1994 (5)	G15-92 04-Jun-1995 (5)	G15-92 11-Sep-1995 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 07-Nov-1995 (5)	G15-92 17-Jul-1996 (5)	G15-92 22-Nov-1996 (5)	G15-92 10-Jun-1997 (5)	G15-92 09-Sep-1997 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	--
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	--
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	--
Total Dissolved Solids	mg/l	--	500	--	--	--	--	--
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 07-Nov-1995 (5)	G15-92 17-Jul-1996 (5)	G15-92 22-Nov-1996 (5)	G15-92 10-Jun-1997 (5)	G15-92 09-Sep-1997 (5)
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	--
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G15-92 11-Jun-1998 [5]	G15-92 20-Aug-1998 [5]	G15-92 25-May-1999 [5]	G15-92 31-Aug-1999 [5]	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	
Bromide	mg/l	--	--	--	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	
Chloride	mg/l	--	250	--	--	--	--	
Conductivity (Field)	uS/cm	--	--	--	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	
Fluoride	mg/l	1.5	--	--	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	
Nitrate as N	mg/l	10	--	--	--	--	--	
Nitrite as N	mg/l	1	--	--	--	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	
Nitrogen, Organic	mg/l	--	--	--	--	--	--	
pH (Field)	-	--	--	--	--	--	--	
Phosphate	mg/l	--	--	--	--	--	--	
Phosphorus	mg/l	--	--	--	--	--	--	
Sulphate	mg/l	--	500 [6]	--	--	--	--	
Temperature (Field)	deg c	--	15	--	--	--	--	
Total Dissolved Solids	mg/l	--	500	--	--	--	--	
Total Organic Carbon	mg/l	--	--	--	--	--	--	
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	
Barium, dissolved	mg/l	1	--	--	--	--	--	
Beryllium, dissolved	mg/l	--	--	--	--	--	--	
Boron, dissolved	mg/l	5	--	--	--	--	--	
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	
Calcium, dissolved	mg/l	--	--	--	--	--	--	
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	
Cobalt, dissolved	mg/l	--	--	--	--	--	--	
Copper, dissolved	mg/l	--	1	--	--	--	--	
Iron, dissolved	mg/l	--	0.3	--	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G15-92 11-Jun-1998 (5)	G15-92 20-Aug-1998 (5)	G15-92 25-May-1999 (5)	G15-92 31-Aug-1999 (5)	
Lead, dissolved	mg/l	0.01	--	--	--	--	--	
Magnesium, dissolved	mg/l	--	--	--	--	--	--	
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	
Nickel, dissolved	mg/l	--	--	--	--	--	--	
Potassium, dissolved	mg/l	--	--	--	--	--	--	
Silicon, dissolved	mg/l	--	--	--	--	--	--	
Silver, dissolved	mg/l	--	--	--	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	
Strontium, dissolved	mg/l	--	--	--	--	--	--	
Sulfur	mg/l	--	--	--	--	--	--	
Thallium, dissolved	mg/l	--	--	--	--	--	--	
Tin, dissolved	mg/l	--	--	--	--	--	--	
Titanium, dissolved	mg/l	--	--	--	--	--	--	
Vanadium, dissolved	mg/l	--	--	--	--	--	--	
Zinc, dissolved	mg/l	--	5	--	--	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G16-92 01-May-1992	G16-92 07-Sep-1992	G16-92 27-Nov-1992	G16-92 05-May-1993	G16-92 11-Nov-1993
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	38	74	28	103	33
Ammonia Nitrogen	mg/l	--	--	<0.1	<0.1	<0.1	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	<1	<1	<1	--	--
Bromide	mg/l	--	--	<0.5	1.1	<0.5	--	--
Chemical Oxygen Demand	mg/l	--	--	11	20	8	16	13
Chloride	mg/l	--	250	11	31	10	15	20
Conductivity (Field)	uS/cm	--	--	252	290	120	230	165
Dissolved Organic Carbon	mg/l	--	5	--	--	--	6.3	4.4
Fluoride	mg/l	1.5	--	0.13	0.11	0.09	--	--
Hardness, Calcium Carbonate	mg/l	--	--	63	89	45	100	53
Nitrate as N	mg/l	10	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as N	mg/l	1	--	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Total Kjeldahl	mg/l	--	--	0.29	<0.1	0.16	--	--
Nitrogen, Organic	mg/l	--	--	0.29	<0.1	0.16	--	--
pH (Field)	-	--	--	6.3	6.1	6.5	6.3	--
Phosphate	mg/l	--	--	0.14	0.24	0.36	--	--
Phosphorus	mg/l	--	--	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	mg/l	--	500 (6)	33	13	21	--	--
Temperature (Field)	deg c	--	15	8	8	8	7.5	7
Total Dissolved Solids	mg/l	--	500	120	180	70	170	100
Total Organic Carbon	mg/l	--	--	3.7	6.8	4.2	7.6	4.6
Metals								
Aluminum, dissolved	mg/l	--	--	0.35	0.22	0.12	1.14	<0.03
Barium, dissolved	mg/l	1	--	0.01	0.04	0.02	0.03	<0.01
Beryllium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Boron, dissolved	mg/l	5	--	0.02	0.09	0.02	<0.01	<0.01
Cadmium, dissolved	mg/l	0.005	--	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium, dissolved	mg/l	--	--	12	16	8	17	8
Chromium, dissolved	mg/l	0.05	--	<0.01	0.02	<0.01	<0.01	<0.01
Cobalt, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Copper, dissolved	mg/l	--	1	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, dissolved	mg/l	--	0.3	1.23	5.14	0.84	2.28	0.54

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G16-92 01-May-1992	G16-92 07-Sep-1992	G16-92 27-Nov-1992	G16-92 05-May-1993	G16-92 11-Nov-1993
Lead, dissolved	mg/l	0.01	--	0.002	<0.002	<0.002	<0.002	<0.002
Magnesium, dissolved	mg/l	--	--	8	12	6	14	8
Manganese, dissolved	mg/l	--	0.05	0.08	0.28	0.14	0.14	0.11
Molybdenum, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium, dissolved	mg/l	--	--	2	3	3	2	1
Silicon, dissolved	mg/l	--	--	3.1	7.6	3.6	1.5	2.7
Silver, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	14	19	8	19	14
Strontium, dissolved	mg/l	--	--	<0.01	0.15	0.09	<0.01	<0.01
Sulfur	mg/l	--	--	10	6	10	6	8
Thallium, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Tin, dissolved	mg/l	--	--	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium, dissolved	mg/l	--	--	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium, dissolved	mg/l	--	--	0.01	0.02	<0.01	<0.01	<0.01
Zinc, dissolved	mg/l	--	5	<0.01	<0.01	<0.01	<0.01	0.03
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	<0.002	<0.002	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G16-92 03-Jun-1994	G16-92 08-Sep-1994	G16-92 24-Nov-1994 (5)	G16-92 04-Jun-1995	G16-92 11-Sep-1995
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	77	78	--	67	103
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	--	--	--
Bromide	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	38	25	--	20	22
Chloride	mg/l	--	250	42	32	--	42	22
Conductivity (Field)	uS/cm	--	--	250	280	--	300	310
Dissolved Organic Carbon	mg/l	--	5	14.4	9.4	--	9.1	8.7
Fluoride	mg/l	1.5	--	--	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	--	94	82	--	86	92
Nitrate as N	mg/l	10	--	--	--	--	--	--
Nitrite as N	mg/l	1	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--	--	--
pH (Field)	-	--	--	6.4	6.4	--	6.2	7.1
Phosphate	mg/l	--	--	--	--	--	--	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	--	--	--
Temperature (Field)	deg c	--	15	14	18	--	18	18
Total Dissolved Solids	mg/l	--	500	200	180	--	188	196
Total Organic Carbon	mg/l	--	--	--	--	--	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Barium, dissolved	mg/l	1	--	--	--	--	--	--
Beryllium, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Cadmium, dissolved	mg/l	0.005	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Chromium, dissolved	mg/l	0.05	--	--	--	--	--	--
Cobalt, dissolved	mg/l	--	--	--	--	--	--	--
Copper, dissolved	mg/l	--	1	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	2.22	1.96	--	1.2	0.78

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G16-92 03-Jun-1994	G16-92 08-Sep-1994	G16-92 24-Nov-1994 (5)	G16-92 04-Jun-1995	G16-92 11-Sep-1995
Lead, dissolved	mg/l	0.01	--	--	--	--	--	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.11	0.09	--	0.09	0.08
Molybdenum, dissolved	mg/l	--	--	--	--	--	--	--
Nickel, dissolved	mg/l	--	--	--	--	--	--	--
Potassium, dissolved	mg/l	--	--	--	--	--	--	--
Silicon, dissolved	mg/l	--	--	--	--	--	--	--
Silver, dissolved	mg/l	--	--	--	--	--	--	--
Sodium, dissolved	mg/l	--	200 (7)	14	17	--	31	31
Strontium, dissolved	mg/l	--	--	0.11	0.103	--	0.119	0.132
Sulfur	mg/l	--	--	--	--	--	--	--
Thallium, dissolved	mg/l	--	--	--	--	--	--	--
Tin, dissolved	mg/l	--	--	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	--	--	--
Vanadium, dissolved	mg/l	--	--	--	--	--	--	--
Zinc, dissolved	mg/l	--	5	--	--	--	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--	--	--	--

Parameter	Unit	(2) (1) ODWQS(169 /03)-Health	(4) (3) ODWQS-AO	G16-92 07-Nov-1995 (5)	G16-92 17-Jul-1996 (8)			
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--			
Ammonia Nitrogen	mg/l	--	--	--	--			
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--			
Bromide	mg/l	--	--	--	--			
Chemical Oxygen Demand	mg/l	--	--	--	--			
Chloride	mg/l	--	250	--	--			
Conductivity (Field)	uS/cm	--	--	--	--			
Dissolved Organic Carbon	mg/l	--	5	--	--			
Fluoride	mg/l	1.5	--	--	--			
Hardness, Calcium Carbonate	mg/l	--	--	--	--			
Nitrate as N	mg/l	10	--	--	--			
Nitrite as N	mg/l	1	--	--	--			
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--			
Nitrogen, Organic	mg/l	--	--	--	--			
pH (Field)	-	--	--	--	--			
Phosphate	mg/l	--	--	--	--			
Phosphorus	mg/l	--	--	--	--			
Sulphate	mg/l	--	500 (6)	--	--			
Temperature (Field)	deg c	--	15	--	--			
Total Dissolved Solids	mg/l	--	500	--	--			
Total Organic Carbon	mg/l	--	--	--	--			
Metals								
Aluminum, dissolved	mg/l	--	--	--	--			
Barium, dissolved	mg/l	1	--	--	--			
Beryllium, dissolved	mg/l	--	--	--	--			
Boron, dissolved	mg/l	5	--	--	--			
Cadmium, dissolved	mg/l	0.005	--	--	--			
Calcium, dissolved	mg/l	--	--	--	--			
Chromium, dissolved	mg/l	0.05	--	--	--			
Cobalt, dissolved	mg/l	--	--	--	--			
Copper, dissolved	mg/l	--	1	--	--			
Iron, dissolved	mg/l	--	0.3	--	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G16-92 07-Nov-1995 (5)	G16-92 17-Jul-1996 (8)			
Lead, dissolved	mg/l	0.01	--	--	--			
Magnesium, dissolved	mg/l	--	--	--	--			
Manganese, dissolved	mg/l	--	0.05	--	--			
Molybdenum, dissolved	mg/l	--	--	--	--			
Nickel, dissolved	mg/l	--	--	--	--			
Potassium, dissolved	mg/l	--	--	--	--			
Silicon, dissolved	mg/l	--	--	--	--			
Silver, dissolved	mg/l	--	--	--	--			
Sodium, dissolved	mg/l	--	200 (7)	--	--			
Strontium, dissolved	mg/l	--	--	--	--			
Sulfur	mg/l	--	--	--	--			
Thallium, dissolved	mg/l	--	--	--	--			
Tin, dissolved	mg/l	--	--	--	--			
Titanium, dissolved	mg/l	--	--	--	--			
Vanadium, dissolved	mg/l	--	--	--	--			
Zinc, dissolved	mg/l	--	5	--	--			
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	--	--			

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G19-92 12-Oct-1992 (5)	G19-92 27-Nov-1992 (5)	G19-92 05-May-1993 (5)	G19-92 10-Nov-1993 (5)	G19-92 03-Jun-1994
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	--	--	--	--	16
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	<3
Chloride	mg/l	--	250	--	--	--	--	5
Conductivity (Field)	uS/cm	--	--	--	--	--	--	65
Dissolved Organic Carbon	mg/l	--	5	--	--	--	--	0.5
Hardness, Calcium Carbonate	mg/l	--	--	--	--	--	--	35
pH (Field)	-	--	--	--	--	--	--	6.4
Phosphorus	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--	--	7
Total Dissolved Solids	mg/l	--	500	--	--	--	--	55
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	--	--	--	--	0.19
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	--	--	--	--	<0.01
Sodium, dissolved	mg/l	--	200 (7)	--	--	--	--	1
Strontium, dissolved	mg/l	--	--	--	--	--	--	0.05

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G19-92 08-Sep-1994	G19-92 24-Nov-1994 (5)	G19-92 04-Jun-1995	G19-92 11-Sep-1995	G19-92 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	16	--	18	20	--
Chemical Oxygen Demand	mg/l	--	--	5	--	<3	<3	--
Chloride	mg/l	--	250	4	--	5	7	--
Conductivity (Field)	uS/cm	--	--	55	--	60	85	--
Dissolved Organic Carbon	mg/l	--	5	0.5	--	0.8	0.7	--
Hardness, Calcium Carbonate	mg/l	--	--	26	--	26	32	--
pH (Field)	-	--	--	6.8	--	6.1	7.1	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	12	--	9	13	--
Total Dissolved Solids	mg/l	--	500	60	--	48	60	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.17	--	0.5	0.95	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	<0.01	0.02	--
Sodium, dissolved	mg/l	--	200 (7)	1	--	4	4	--
Strontium, dissolved	mg/l	--	--	0.037	--	0.048	0.064	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G19-92 16-Jul-1996	G19-92 21-Nov-1996	G19-92 10-Jun-1997	G19-92 10-Sep-1997	G19-92 12-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	27	3	18	20	31
Chemical Oxygen Demand	mg/l	--	--	5	8	8	<3	5
Chloride	mg/l	--	250	9	9	9	23	27
Conductivity (Field)	uS/cm	--	--	100	68	130	170	229
Dissolved Organic Carbon	mg/l	--	5	0.6	1.4	1.4	1.1	1.8
Hardness, Calcium Carbonate	mg/l	--	--	41	44	48	61	116
pH (Field)	-	--	--	6.2	7.2	6.8	6.3	5.88
Phosphorus	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	6.5	9	3	13	11
Total Dissolved Solids	mg/l	--	500	60	76	88	120	164
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	11	--	--
Iron, dissolved	mg/l	--	0.3	0.3	0.62	0.4	0.19	0.22
Magnesium, dissolved	mg/l	--	--	--	--	5	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.01	0.01	<0.01	<0.01
Sodium, dissolved	mg/l	--	200 (7)	7	5	3	5	6
Strontium, dissolved	mg/l	--	--	0.077	0.078	0.097	0.152	0.227

Parameter	Unit	ODWQS(169/03)-Health [2] [1]	ODWQS-AO [4] [3]	G19-92 19-Aug-1998	G19-92 25-May-1999	G19-92 30-Aug-1999	G19-92 02-Jun-2000	G19-92 18-Aug-2000 [8]
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	30	42	36	39	--
Chemical Oxygen Demand	mg/l	--	--	<3	17	<3	8	--
Chloride	mg/l	--	250	23	23	23	38	--
Conductivity (Field)	uS/cm	--	--	190	340	190	220	--
Dissolved Organic Carbon	mg/l	--	5	1.1	4.6	1.3	1.9	--
Hardness, Calcium Carbonate	mg/l	--	--	81	144	121	187	--
pH (Field)	-	--	--	5.6	5.9	6.23	6.38	--
Phosphorus	mg/l	--	--	--	--	--	0.78	--
Temperature (Field)	deg c	--	15	16	8	7	7	--
Total Dissolved Solids	mg/l	--	500	132	224	176	284	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	0.07	--
Calcium, dissolved	mg/l	--	--	--	--	--	50	--
Iron, dissolved	mg/l	--	0.3	0.17	<0.01	<0.01	0.1	--
Magnesium, dissolved	mg/l	--	--	--	--	--	15	--
Manganese, dissolved	mg/l	--	0.05	<0.01	0.01	0.03	1.14	--
Sodium, dissolved	mg/l	--	200 [7]	8	10	9	13	--
Strontium, dissolved	mg/l	--	--	0.247	0.311	0.272	0.447	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G22-94 08-Sep-1994	G22-94 24-Nov-1994 (5)	G22-94 04-Jun-1995	G22-94 11-Sep-1995	G22-94 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	47	--	26	28	--
Chemical Oxygen Demand	mg/l	--	--	8	--	7	5	--
Chloride	mg/l	--	250	19	--	11	14	--
Conductivity (Field)	uS/cm	--	--	165	--	115	135	--
Dissolved Organic Carbon	mg/l	--	5	1.2	--	1.9	1.3	--
Hardness, Calcium Carbonate	mg/l	--	--	67	--	55	55	--
pH (Field)	-	--	--	6.7	--	6	7.6	--
Temperature (Field)	deg c	--	15	9	--	8.5	9	--
Total Dissolved Solids	mg/l	--	500	240	--	72	92	--
Metals								
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.21	--	0.39	0.71	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	0.05	--	0.02	0.02	--
Sodium, dissolved	mg/l	--	200 (7)	4	--	7	7	--
Strontium, dissolved	mg/l	--	--	0.094	--	0.078	0.1	--

Parameter	Unit	[2] [1] ODWQS(169/03)-Health	[4] [3] ODWQS-AO	G22-94 16-Jul-1996	G22-94 21-Nov-1996	G22-94 10-Jun-1997	G22-94 12-Sep-1997	G22-94 11-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	41	26	25	3	23
Chemical Oxygen Demand	mg/l	--	--	5	11	8	5	<3
Chloride	mg/l	--	250	26	29	38	36	53
Conductivity (Field)	uS/cm	--	--	115	130	220	500	210
Dissolved Organic Carbon	mg/l	--	5	1.2	2.1	1.5	1.8	0.9
Hardness, Calcium Carbonate	mg/l	--	--	68	73	73	75	117
pH (Field)	-	--	--	5.3	7.2	7.2	--[11]	6
Temperature (Field)	deg c	--	15	5	7.5	2.5	10	8
Total Dissolved Solids	mg/l	--	500	124	132	140	148	204
Metals								
Calcium, dissolved	mg/l	--	--	--	--	16	--	--
Iron, dissolved	mg/l	--	0.3	0.39	0.43	0.44	0.47	0.43
Magnesium, dissolved	mg/l	--	--	--	--	8	--	--
Manganese, dissolved	mg/l	--	0.05	0.01	0.01	0.01	<0.01	0.03
Sodium, dissolved	mg/l	--	200[7]	12	11	7	7	10
Strontium, dissolved	mg/l	--	--	0.116	0.117	0.143	0.163	0.186

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G22-94 19-Aug-1998	G22-94 26-May-1999 (8)	G22-94 30-Aug-1999 (8)	G22-94 18-Aug-2000 (8)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	23	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	5	--	--	--	
Chloride	mg/l	--	250	54	--	--	--	
Conductivity (Field)	uS/cm	--	--	320	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	1	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	--	117	--	--	--	
pH (Field)	-	--	--	7.2	--	--	--	
Temperature (Field)	deg c	--	15	7	--	--	--	
Total Dissolved Solids	mg/l	--	500	212	--	--	--	
Metals								
Calcium, dissolved	mg/l	--	--	--	--	--	--	
Iron, dissolved	mg/l	--	0.3	0.12	--	--	--	
Magnesium, dissolved	mg/l	--	--	--	--	--	--	
Manganese, dissolved	mg/l	--	0.05	<0.01	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	10	--	--	--	
Strontium, dissolved	mg/l	--	--	0.201	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G24-94 08-Sep-1994	G24-94 24-Nov-1994 (5)	G24-94 04-Jun-1995	G24-94 11-Sep-1995	G24-94 07-Nov-1995 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	36	--	55	46	--
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	13	--	<3	5	--
Chloride	mg/l	--	250	28	--	32	17	--
Conductivity (Field)	uS/cm	--	--	275	--	290	230	--
Dissolved Organic Carbon	mg/l	--	5	1.2	--	2.8	2	--
Hardness, Calcium Carbonate	mg/l	--	--	130	--	153	85	--
pH (Field)	-	--	--	5.6	--	5.6	6.3	--
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	15	--	9	13	--
Total Dissolved Solids	mg/l	--	500	180	--	216	132	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	--	--
Iron, dissolved	mg/l	--	0.3	0.03	--	<0.01	0.13	--
Magnesium, dissolved	mg/l	--	--	--	--	--	--	--
Manganese, dissolved	mg/l	--	0.05	<0.01	--	<0.01	<0.01	--
Sodium, dissolved	mg/l	--	200 (7)	4	--	8	8	--
Strontium, dissolved	mg/l	--	--	0.253	--	0.307	0.198	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G24-94 16-Jul-1996	G24-94 21-Nov-1996	G24-94 10-Jun-1997	G24-94 10-Sep-1997	G24-94 12-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	157	181	244	496	501
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	18	19	31	43	42
Chloride	mg/l	--	250	54	59	21	78	76
Conductivity (Field)	uS/cm	--	--	1125	400	490	980	800
Dissolved Organic Carbon	mg/l	--	5	6.9	7	10.7	20.8	16
Hardness, Calcium Carbonate	mg/l	--	--	461	298	256	542	582
pH (Field)	-	--	--	6.2	6.6	6.6	7.2	6.06
Phosphorus	mg/l	--	--	--	--	--	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	8	8.5	5	15	10
Total Dissolved Solids	mg/l	--	500	664	372	336	736	688
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	66	--	--
Iron, dissolved	mg/l	--	0.3	0.05	0.05	0.07	0.09	0.1
Magnesium, dissolved	mg/l	--	--	--	--	22	--	--
Manganese, dissolved	mg/l	--	0.05	0.44	0.08	0.53	1.26	2.5
Sodium, dissolved	mg/l	--	200 (7)	30	12	14	30	35
Strontium, dissolved	mg/l	--	--	1.05	0.666	0.448	1.04	1.13

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G24-94 20-Aug-1998	G24-94 25-May-1999	G24-94 30-Aug-1999	G24-94 02-Jun-2000	G24-94 17-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	531	44	915	375	826
Ammonia Nitrogen	mg/l	--	--	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	38	2	75	48	83
Chloride	mg/l	--	250	64	17	85	22	56
Conductivity (Field)	uS/cm	--	--	1200	300	1200	380	1730
Dissolved Organic Carbon	mg/l	--	5	15	1.5	25.1	17.2	36.4
Hardness, Calcium Carbonate	mg/l	--	--	612	58	1050	387	833
pH (Field)	-	--	--	6.3	7.1	--(11)	7.05	6.41
Phosphorus	mg/l	--	--	--	--	--	1.99	0.44
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--	--	--
Temperature (Field)	deg c	--	15	12	4	10	8	12.9
Total Dissolved Solids	mg/l	--	500	700	108	1180	532	1168
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	0.32	<0.05
Boron, dissolved	mg/l	5	--	--	--	--	--	--
Calcium, dissolved	mg/l	--	--	--	--	--	112	241
Iron, dissolved	mg/l	--	0.3	0.09	<0.01	<0.01	0.61	0.03
Magnesium, dissolved	mg/l	--	--	--	--	--	26	56
Manganese, dissolved	mg/l	--	0.05	2.81	<0.01	4.5	5.27	12
Sodium, dissolved	mg/l	--	200(7)	32	7	40	36	48
Strontium, dissolved	mg/l	--	--	1.12	0.145	2.06	0.661	1.41

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G24-94 26-May-2001	G24-94 08-Aug-2001	G24-94 04-Apr-2002	G24-94 07-Aug-2002	G24-94 14-May-2003 (8)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	438	1130	939	1150	--
Ammonia Nitrogen	mg/l	--	--	0.03	0.12	0.06	<0.02	--
Chemical Oxygen Demand	mg/l	--	--	--	--	--	--	--
Chloride	mg/l	--	250	25	137	185	201	--
Conductivity (Field)	uS/cm	--	--	450	1900	460	450	--
Dissolved Organic Carbon	mg/l	--	5	19.1	45.4	65.7	63.9	--
Hardness, Calcium Carbonate	mg/l	--	--	426	1210	1140	1440	--
pH (Field)	-	--	--	6.5	7.1	6.4	6.7	--
Phosphorus	mg/l	--	--	0.82	0.42	0.32	0.49	--
Phosphorus (dissolved reactive)	mg/l	--	--	--	<0.01	<0.01	0.1	--
Temperature (Field)	deg c	--	15	9	11	6	16	--
Total Dissolved Solids	mg/l	--	500	636	1520	1380	1480	--
Metals								
Aluminum, dissolved	mg/l	--	--	--	--	--	--	--
Boron, dissolved	mg/l	5	--	0.07	0.15	0.06	<0.02	--
Calcium, dissolved	mg/l	--	--	126	359	353	443	--
Iron, dissolved	mg/l	--	0.3	0.01	0.05	0.01	0.08	--
Magnesium, dissolved	mg/l	--	--	27	75	63	80	--
Manganese, dissolved	mg/l	--	0.05	9.29	22.6	31	29.2	--
Sodium, dissolved	mg/l	--	200 (7)	42	66	41	61	--
Strontium, dissolved	mg/l	--	--	--	--	--	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G32A-98 12-Jun-1998	G32A-98 20-Aug-1998 (5)	G32A-98 25-May-1999	G32A-98 02-Jun-2000 (5)	G32A-98 18-Aug-2000 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	367	--	359	--	--
Ammonia Nitrogen	mg/l	--	--	0.47	--	0.43	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	2	--	20	--	--
Chemical Oxygen Demand	mg/l	--	--	2	--	20	--	--
Chloride	mg/l	--	250	76	--	66	--	--
Conductivity (Field)	uS/cm	--	--	660	--	890	--	--
Dissolved Organic Carbon	mg/l	--	5	4.8	--	4.4	--	--
Hardness, Calcium Carbonate	mg/l	--	--	24	--	7	--	--
Nitrate as N	mg/l	10	--	<0.1	--	0.1	--	--
Nitrite as N	mg/l	1	--	<0.1	--	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	0.51	--	0.43	--	--
Nitrogen, Organic	mg/l	--	--	0.04	--	<0.1	--	--
pH (Field)	-	--	--	8.56	--	9.15	--	--
Phosphorus	mg/l	--	--	1.38	--	0.43	--	--
Sulphate	mg/l	--	500 (6)	7	--	<3	--	--
Temperature (Field)	deg c	--	15	9.5	--	9	--	--
Total Dissolved Solids	mg/l	--	500	540	--	512	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	4.28	--	<0.03	--	--
Barium, dissolved	mg/l	1	--	0.08	--	0.04	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Boron, dissolved	mg/l	5	--	0.67	--	0.68	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	<0.005	--	--
Calcium, dissolved	mg/l	--	--	3	--	1	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	--	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.005	--	<0.005	--	--
Iron, dissolved	mg/l	--	0.3	1.08	--	<0.01	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G32A-98 12-Jun-1998	G32A-98 20-Aug-1998 (5)	G32A-98 25-May-1999	G32A-98 02-Jun-2000 (5)	G32A-98 18-Aug-2000 (5)
Lead, dissolved	mg/l	0.01	--	<0.002	--	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	4	--	1	--	--
Manganese, dissolved	mg/l	--	0.05	0.02	--	<0.01	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	<0.0002	--	--
Molybdenum, dissolved	mg/l	--	--	<0.03	--	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Potassium, dissolved	mg/l	--	--	9	--	3	--	--
Silicon, dissolved	mg/l	--	--	4	--	3	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	237	--	206	--	--
Strontium, dissolved	mg/l	--	--	0.071	--	0.054	--	--
Sulfur	mg/l	--	--	3	--	<0.01	--	--
Thallium, dissolved	mg/l	--	--	<0.2	--	<0.2	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	<0.001	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G32B-98 12-Jun-1998	G32B-98 20-Aug-1998 (5)	G32B-98 02-Jun-2000 (5)	G32B-98 18-Aug-2000 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	352	--	--	--	
Ammonia Nitrogen	mg/l	--	--	0.56	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	7	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	7	--	--	--	
Chloride	mg/l	--	250	75	--	--	--	
Conductivity (Field)	uS/cm	--	--	620	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	4.4	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	--	39	--	--	--	
Nitrate as N	mg/l	10	--	<0.1	--	--	--	
Nitrite as N	mg/l	1	--	<0.1	--	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	0.57	--	--	--	
Nitrogen, Organic	mg/l	--	--	0.01	--	--	--	
pH (Field)	-	--	--	9.4	--	--	--	
Phosphorus	mg/l	--	--	11.3	--	--	--	
Sulphate	mg/l	--	500 (6)	2	--	--	--	
Temperature (Field)	deg c	--	15	11	--	--	--	
Total Dissolved Solids	mg/l	--	500	520	--	--	--	
Metals								
Aluminum, dissolved	mg/l	--	--	3.53	--	--	--	
Barium, dissolved	mg/l	1	--	0.11	--	--	--	
Beryllium, dissolved	mg/l	--	--	<0.01	--	--	--	
Boron, dissolved	mg/l	5	--	0.68	--	--	--	
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	--	--	
Calcium, dissolved	mg/l	--	--	4	--	--	--	
Chromium, dissolved	mg/l	0.05	--	<0.01	--	--	--	
Cobalt, dissolved	mg/l	--	--	<0.01	--	--	--	
Copper, dissolved	mg/l	--	1	<0.005	--	--	--	
Iron, dissolved	mg/l	--	0.3	2.39	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G32B-98 12-Jun-1998	G32B-98 20-Aug-1998 (5)	G32B-98 02-Jun-2000 (5)	G32B-98 18-Aug-2000 (5)	
Lead, dissolved	mg/l	0.01	--	0.005	--	--	--	
Magnesium, dissolved	mg/l	--	--	7	--	--	--	
Manganese, dissolved	mg/l	--	0.05	0.06	--	--	--	
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	--	--	
Molybdenum, dissolved	mg/l	--	--	<0.03	--	--	--	
Nickel, dissolved	mg/l	--	--	<0.01	--	--	--	
Potassium, dissolved	mg/l	--	--	14	--	--	--	
Silicon, dissolved	mg/l	--	--	4.9	--	--	--	
Silver, dissolved	mg/l	--	--	<0.01	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	227	--	--	--	
Strontium, dissolved	mg/l	--	--	0.073	--	--	--	
Sulfur	mg/l	--	--	<3	--	--	--	
Thallium, dissolved	mg/l	--	--	<0.2	--	--	--	
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	
Titanium, dissolved	mg/l	--	--	0.01	--	--	--	
Vanadium, dissolved	mg/l	--	--	<0.01	--	--	--	
Zinc, dissolved	mg/l	--	5	<0.01	--	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G33A-98 11-Jun-1998	G33A-98 20-Aug-1998 (5)	G33A-98 26-May-1999	G33A-98 02-Jun-2000 (5)	G33A-98 18-Aug-2000 (5)
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	524	--	520	--	--
Ammonia Nitrogen	mg/l	--	--	0.78	--	0.61	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	7	--	14	--	--
Chemical Oxygen Demand	mg/l	--	--	23	--	20	--	--
Chloride	mg/l	--	250	90	--	65	--	--
Conductivity (Field)	uS/cm	--	--	910	--	1100	--	--
Dissolved Organic Carbon	mg/l	--	5	8.1	--	11.4	--	--
Hardness, Calcium Carbonate	mg/l	--	--	81	--	31	--	--
Nitrate as N	mg/l	10	--	0.21	--	<0.1	--	--
Nitrite as N	mg/l	1	--	<0.1	--	<0.1	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	1.05	--	11.5	--	--
Nitrogen, Organic	mg/l	--	--	0.27	--	10.89	--	--
pH (Field)	-	--	--	8.97	--	8.12	--	--
Phosphorus	mg/l	--	--	4.74	--	2.77	--	--
Sulphate	mg/l	--	500 (6)	37	--	<3	--	--
Temperature (Field)	deg c	--	15	11	--	5	--	--
Total Dissolved Solids	mg/l	--	500	770	--	732	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	3.7	--	<0.03	--	--
Barium, dissolved	mg/l	1	--	0.19	--	0.06	--	--
Beryllium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Boron, dissolved	mg/l	5	--	1.16	--	1.19	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	<0.005	--	--
Calcium, dissolved	mg/l	--	--	5	--	4	--	--
Chromium, dissolved	mg/l	0.05	--	<0.01	--	<0.01	--	--
Cobalt, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Copper, dissolved	mg/l	--	1	<0.005	--	<0.005	--	--
Iron, dissolved	mg/l	--	0.3	4.53	--	0.04	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G33A-98 11-Jun-1998	G33A-98 20-Aug-1998 (5)	G33A-98 26-May-1999	G33A-98 02-Jun-2000 (5)	G33A-98 18-Aug-2000 (5)
Lead, dissolved	mg/l	0.01	--	0.002	--	<0.002	--	--
Magnesium, dissolved	mg/l	--	--	13	--	5	--	--
Manganese, dissolved	mg/l	--	0.05	0.16	--	<0.01	--	--
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	<0.0002	--	--
Molybdenum, dissolved	mg/l	--	--	<0.03	--	<0.01	--	--
Nickel, dissolved	mg/l	--	--	<0.01	--	0.01	--	--
Potassium, dissolved	mg/l	--	--	25	--	<1	--	--
Silicon, dissolved	mg/l	--	--	5.4	--	3.3	--	--
Silver, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Sodium, dissolved	mg/l	--	200 (7)	333	--	298	--	--
Strontium, dissolved	mg/l	--	--	0.132	--	0.088	--	--
Sulfur	mg/l	--	--	12	--	<3	--	--
Thallium, dissolved	mg/l	--	--	<0.2	--	<0.2	--	--
Tin, dissolved	mg/l	--	--	<0.05	--	<0.05	--	--
Titanium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Vanadium, dissolved	mg/l	--	--	<0.01	--	<0.01	--	--
Zinc, dissolved	mg/l	--	5	<0.01	--	<0.01	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	<0.001	--	--

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G33B-98 09-Jun-1998	G33B-98 20-Aug-1998 (5)	G33B-98 02-Jun-2000 (5)	G33B-98 18-Aug-2000 (5)	
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	566	--	--	--	
Ammonia Nitrogen	mg/l	--	--	0.82	--	--	--	
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	9	--	--	--	
Chemical Oxygen Demand	mg/l	--	--	18	--	--	--	
Chloride	mg/l	--	250	75	--	--	--	
Conductivity (Field)	uS/cm	--	--	870	--	--	--	
Dissolved Organic Carbon	mg/l	--	5	9.8	--	--	--	
Hardness, Calcium Carbonate	mg/l	--	--	149	--	--	--	
Nitrate as N	mg/l	10	--	0.13	--	--	--	
Nitrite as N	mg/l	1	--	<0.1	--	--	--	
Nitrogen, Total Kjeldahl	mg/l	--	--	1.36	--	--	--	
Nitrogen, Organic	mg/l	--	--	0.54	--	--	--	
pH (Field)	-	--	--	9.17	--	--	--	
Phosphorus	mg/l	--	--	8.17	--	--	--	
Sulphate	mg/l	--	500 (6)	8	--	--	--	
Temperature (Field)	deg c	--	15	11	--	--	--	
Total Dissolved Solids	mg/l	--	500	780	--	--	--	
Metals								
Aluminum, dissolved	mg/l	--	--	3.18	--	--	--	
Barium, dissolved	mg/l	1	--	0.06	--	--	--	
Beryllium, dissolved	mg/l	--	--	<0.01	--	--	--	
Boron, dissolved	mg/l	5	--	1.21	--	--	--	
Cadmium, dissolved	mg/l	0.005	--	<0.005	--	--	--	
Calcium, dissolved	mg/l	--	--	12	--	--	--	
Chromium, dissolved	mg/l	0.05	--	<0.01	--	--	--	
Cobalt, dissolved	mg/l	--	--	<0.01	--	--	--	
Copper, dissolved	mg/l	--	1	<0.005	--	--	--	
Iron, dissolved	mg/l	--	0.3	2.79	--	--	--	

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G33B-98 09-Jun-1998	G33B-98 20-Aug-1998 (5)	G33B-98 02-Jun-2000 (5)	G33B-98 18-Aug-2000 (5)	
Lead, dissolved	mg/l	0.01	--	<0.002	--	--	--	
Magnesium, dissolved	mg/l	--	--	29	--	--	--	
Manganese, dissolved	mg/l	--	0.05	0.06	--	--	--	
Mercury, dissolved	mg/l	0.001	--	<0.0002	--	--	--	
Molybdenum, dissolved	mg/l	--	--	<0.03	--	--	--	
Nickel, dissolved	mg/l	--	--	<0.01	--	--	--	
Potassium, dissolved	mg/l	--	--	44	--	--	--	
Silicon, dissolved	mg/l	--	--	5.1	--	--	--	
Silver, dissolved	mg/l	--	--	<0.01	--	--	--	
Sodium, dissolved	mg/l	--	200 (7)	230	--	--	--	
Strontium, dissolved	mg/l	--	--	0.078	--	--	--	
Sulfur	mg/l	--	--	5	--	--	--	
Thallium, dissolved	mg/l	--	--	<0.2	--	--	--	
Tin, dissolved	mg/l	--	--	<0.05	--	--	--	
Titanium, dissolved	mg/l	--	--	0.02	--	--	--	
Vanadium, dissolved	mg/l	--	--	<0.01	--	--	--	
Zinc, dissolved	mg/l	--	5	<0.01	--	--	--	
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	<0.002	--	--	--	

GROUNDWATER QUALITY DATA

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G41-10 27-May-2010 T-8	G41-10 24-Jun-2010 41-10	G41-10 12-Aug-2010 R-7	G41-10 09-Sep-2010 41-10	G41-10 02-May-2011 (8) G41-10
General Chemistry								
Alkalinity (Total as CaCO3)	mg/l	--	--	145	--	177	--	--
Ammonia Nitrogen	mg/l	--	--	1.2	--	1.6	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	4	--	4	--	--
Chemical Oxygen Demand	mg/l	--	--	850	--	1200	--	--
Chloride	mg/l	--	250	17	--	17	--	--
Conductivity (Field)	uS/cm	--	--	390	--	391	--	--
Dissolved Organic Carbon	mg/l	--	5	59.2	46.0	45	46.5	--
Hardness, Calcium Carbonate	mg/l	--	--	130	--	150	--	--
Nitrate as N	mg/l	10	--	<0.1	--	<0.1	--	--
Nitrite as N	mg/l	1	--	0.02	--	<0.01	--	--
Nitrogen, Total Kjeldahl	mg/l	--	--	26	--	34	--	--
Nitrogen, Nitrate-Nitrite	mg/l	10	--	<0.1	--	<0.1	--	--
pH (Field)	-	--	--	6.72	--	6.06	--	--
Phosphorus	mg/l	--	--	1.2	--	2.3	--	--
Phosphorus (dissolved reactive)	mg/l	--	--	0.02	--	<0.1 (22)	--	--
Sulphate	mg/l	--	500 (6)	<1	--	<10 (22)	--	--
Temperature (Field)	deg c	--	15	10.8	--	17.6	--	--
Total Dissolved Solids	mg/l	--	500	214	--	266	--	--
Metals								
Aluminum, dissolved	mg/l	--	--	0.30	--	0.26	--	--
Barium, dissolved	mg/l	1	--	0.020	--	0.028	--	--
Beryllium, dissolved	mg/l	--	--	<0.0005	--	<0.0005	--	--
Boron, dissolved	mg/l	5	--	0.13	--	0.15	--	--
Cadmium, dissolved	mg/l	0.005	--	<0.0001	--	<0.0001	--	--
Calcium, dissolved	mg/l	--	--	32	--	37	--	--
Chromium, dissolved	mg/l	0.05	--	<0.005	--	<0.005	--	--
Cobalt, dissolved	mg/l	--	--	0.0027	--	0.0019	--	--
Copper, dissolved	mg/l	--	1	0.002	--	0.001	--	--
Iron, dissolved	mg/l	--	0.3	3.7	4.8	5.4	6.26	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	G41-10 27-May-2010 T-8	G41-10 24-Jun-2010 41-10	G41-10 12-Aug-2010 R-7	G41-10 09-Sep-2010 41-10	G41-10 02-May-2011 (8) G41-10
Lead, dissolved	mg/l	0.01	--	<0.0005	--	<0.0005	--	--
Magnesium, dissolved	mg/l	--	--	12	--	14	--	--
Manganese, dissolved	mg/l	--	0.05	0.28	0.29	0.29	0.31	--
Mercury, dissolved	mg/l	0.001	--	<0.0001	--	<0.0001	--	--
Molybdenum, dissolved	mg/l	--	--	0.005	--	0.001	--	--
Nickel, dissolved	mg/l	--	--	0.008	--	0.007	--	--
Potassium, dissolved	mg/l	--	--	2.8	--	2.6	--	--
Silicon, dissolved	mg/l	--	--	5.7	--	5.3	--	--
Silver, dissolved	mg/l	--	--	<0.0001	--	<0.0001	--	--
Sodium, dissolved	mg/l	--	200 (7)	31	--	31	--	--
Strontium, dissolved	mg/l	--	--	0.16	--	0.17	--	--
Sulfur, dissolved	mg/l	--	--	1.9	--	2.1	--	--
Thallium, dissolved	mg/l	--	--	<0.00005	--	<0.00005	--	--
Titanium, dissolved	mg/l	--	--	0.009	--	0.007	--	--
Vanadium, dissolved	mg/l	--	--	0.003	--	0.002	--	--
Zinc, dissolved	mg/l	--	5	0.014	--	<0.005	--	--
Phenols								
Phenolics, Total Recoverable	mg/l	--	--	0.001	--	0.001	--	--

Parameter	Unit	(2) (1) ODWQS(169/03)-Health	(4) (3) ODWQS-AO	Field Blank 02-May-2017 G42	Field Blank 21-Sep-2017 G43	Field Blank 06-Nov-2017 G43
General Chemistry						
Alkalinity (Total as CaCO3)	mg/l	--	--	< 5	< 5	< 5
Ammonia, unionized (Field)	mg/l	--	--	--	--	< 0.01
Ammonia Nitrogen	mg/l	--	--	< 0.01	< 0.01	< 0.01
Bicarbonate	mg/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	mg/l	--	--	--	--	< 3
Bromide	mg/l	--	--	--	--	--
Carbonate (CO3)	mg/l	--	--	--	--	--
Chemical Oxygen Demand	mg/l	--	--	--	--	8
Chloride	mg/l	--	250	< 0.5	< 0.5	< 0.5
Chloride, dissolved	mg/l	--	250	--	--	--
Conductivity	µmho/c	--	--	--	--	--
Dissolved Organic Carbon	mg/l	--	5	0.2	< 0.2	0.6
Fluoride	mg/l	1.5	--	--	--	--
Hardness, Calcium Carbonate	mg/l	--	80-100	< 1	< 1	< 1
Nitrate as N	mg/l	10	--	--	--	< 0.05
Nitrite as N	mg/l	1	--	--	--	< 0.05
Nitrogen, Total Kjeldahl	mg/l	--	--	--	--	0.1
Nitrogen, Nitrate-Nitrite	mg/l	10	--	--	--	--
Nitrogen, Organic	mg/l	--	--	--	--	--
Phosphate	mg/l	--	--	--	--	--
Phosphate, Ortho	mg/l	--	--	< 0.01	< 0.01	--
Phosphorus	mg/l	--	--	< 0.01	< 0.01	< 0.01
Phosphorus (dissolved reactive)	mg/l	--	--	--	--	--
Sulphate	mg/l	--	500 (6)	--	--	< 1
Sulphate, dissolved	mg/l	--	500 (6)	--	--	--
Total Dissolved Solids	mg/l	--	500	1	1	< 1
Total Organic Carbon	mg/l	--	--	--	--	--
Metals						
Aluminum, total	mg/l	0.1	--	--	--	< 0.01
Aluminum, dissolved	mg/l	0.1	--	--	--	< 0.01
Barium, dissolved	mg/l	1	--	--	--	< 0.001
Beryllium, dissolved	mg/l	--	--	--	--	< 0.002
Boron, dissolved	mg/l	5	--	< 0.005	0.008	< 0.005
Cadmium, dissolved	mg/l	0.005	--	--	--	< 0.000014
Calcium, dissolved	mg/l	--	--	--	--	0.02
Chromium, dissolved	mg/l	0.05	--	--	--	< 0.001
Cobalt, dissolved	mg/l	--	--	--	--	< 0.0001
Copper, dissolved	mg/l	--	1	--	--	< 0.0001
Iron, dissolved	mg/l	--	0.3	< 0.005	0.016	< 0.005

Lead, dissolved	mg/l	0.01	--	--	--	< 0.00002
Magnesium, dissolved	mg/l	--	--	--	--	< 0.02
Manganese, dissolved	mg/l	--	0.05	< 0.001	0.002	< 0.001
Mercury	mg/l	--	--	--	--	--
Mercury, dissolved	mg/l	0.001	--	--	--	< 0.00002
Molybdenum, dissolved	mg/l	--	--	--	--	< 0.0001
Nickel, dissolved	mg/l	--	--	--	--	0.0002
Potassium, dissolved	mg/l	--	--	--	--	< 0.1
Silicon, dissolved	mg/l	--	--	--	--	< 0.01
Silver, dissolved	mg/l	--	--	--	--	< 0.00002
Sodium, dissolved	mg/l	--	200 (7)	--	< 0.2	< 0.2
Strontium, dissolved	mg/l	--	--	--	--	< 0.001
Sulfur, dissolved	mg/l	--	--	--	--	< 0.1
Thallium, dissolved	mg/l	--	--	--	--	< 0.00005
Tin, dissolved	mg/l	--	--	--	--	--
Titanium, dissolved	mg/l	--	--	--	--	< 0.005
Vanadium, dissolved	mg/l	--	--	--	--	< 0.0001
Zinc, dissolved	mg/l	--	5	--	--	< 0.005
Phenols						
Phenolics, Total Recoverable	mg/l	--	--	--	--	< 0.001
Field Measurements						
Conductivity (Field)	uS/cm	--	--	--	--	--
Temperature (Field)	deg c	--	15	--	--	--
pH (Field)	-	--	--	--	--	--

Footnotes:
Tables should be read in conjunction with the accompanying document.
< value = Indicates parameter not detected above laboratory method detection limit.
> value = Indicates parameter detected above equipment analytical range.
-- Chemical not analyzed or criteria not defined.
Grey background indicates exceedances.
(1) Ontario Drinking Water Quality Standards - Health Based Standards (June 2003, revised June 2006).
(2) Bold Font = Parameter concentration greater than ODWQS(169/03)-Health
(3) Ontario Drinking Water Quality Standards - Aesthetic Objectives. Aesthetic Objectives are established for parameters that may impair the taste, odour or colour of water or which may interfere with good water quality control practices. For certain parameters, both aesthetic objectives and health-related MACs have been derived (June 2003, revised June 2006).
(4) Underlined Font = Parameter concentration greater than ODWQS-AO
(5) No sample was collected.
(6) There may be a laxative effect in some individuals when sulphate levels exceed 500 mg/L.
(7) The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.
(8) Monitoring location has been destroyed and can no longer be sampled.
(9) Monitoring location was dry during this sampling event. No sample was collected.
(10) Insufficient water for sample collection or analysis at this monitoring location during sampling event.
(11) Parameter was not measured.
(12) Insufficient sample volume was collected for analysis.
(13) Field Parameters were not measured
(14) Result was obtained from the high level Total P method, as sample result was significantly higher than analytical range of the low level method.
(15) Monitoring location was damaged and could not be sampled.

(16) Metals: Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.
(17) Inoperable
(18) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
(19) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
(20) No result(s) available.
(21) Sample bottle contained visible sediment. Sample was shaken to obtain representative aliquot. Results may be biased high due to analyte present in sediment.
(22) Due to colour interferences, sample required dilution. Detection limit was adjusted accordingly.
(23) Sample IDs for G42-10 and G43-11 were reversed.
(24) Nitrite/Nitrate: Due to the colour interferences, some sample required dilution. Detection limits were adjusted accordingly.
(25) Nitrite/Nitrate: Due to the colour interferences, sample required dilution. Detection limits were adjusted accordingly.
(26) Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
(27) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(28) VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
(29) VOC Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(30) Metal Analysis:RDLs of Chromium and Nickel were adjusted due to high concentrations of Carbon and Calcium respectively.

(31) VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(32) Metal Analysis:RDL of Nickel was adjusted due to high concentration of Calcium.VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(33) Detection Limit was raised due to matrix interferences.
(34) Metal analysis:Detection Limit was raised due to matrix interferences.
(35) Location of duplicate sample not noted in field notes. Field technician indicated that the duplicate was taken at either P4-90 or 29-97. Based on comparison of sampling data from the parent samples at these locations on the same day, it appears that the duplicate sample was taken at P4-90.
(36) Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(37) VOC Analysis:Due to foaming sample required dilution. The DLs were adjusted accordingly.
(38) TKN < NH4: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.
(39) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly.
(40) Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.VOC Water Analysis: Due to foaming, sample required dilution. The detection limits were adjusted accordingly.
(41) VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly.
Data prior to 2016 by others. Format from GAL 2015

APPENDIX I

Surface Water Concentrations

I-1: 2018 Data
I-2: Historical Data (PDF Only)

APPENDIX I-1

2018 Data

					Not impacted	Not impacted	Not impacted	Not impacted
					Western Stream	Western Stream	Western Stream	Western Stream
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS6 30-April-2018** GS-6	**GS6 20-Aug-2018** GS-6	**GS6 5-Nov-2018** GS-6	**S1 30-April-2018** S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	56	101	72	65
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.04	0.04	0.05	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	5	<3
Chemical Oxygen Demand	ug/l	--	mg/L	--	90	25	47	79
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	8.2	18.5	13.6	17.1
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	176	270	235	224
Dissolved Organic Carbon	ug/l	--	mg/L	--	13.2	7.7		16
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	83	115	105	94
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.95	0.29	1.03	0.97
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	<0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.5	0.4	0.6	0.6
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	0.04	0.04	**0.09**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	6	9	12	--
Total Dissolved Solids	ug/l	--	mg/L	--	85	139	117	110
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	**0.41**	0.12	0.42	0.71
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.15**	**0.03**	**0.15**	0.13
Barium	ug/l	--	mg/L	--	0.028	0.022	0.034	0.033
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.0001	<0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	0.009	0.009	0.006	0.011
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000015	0.000059	0.000033	0.000023
Calcium	ug/l	--	mg/L	--	22.6	29.5	27.7	25
Chromium	ug/l	--[14]	mg/L	14	<0.001	<0.0001	0.002	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	0.0002	0.0002	0.0004	0.0005
Copper	ug/l	5	mg/L	0.005	0.0011	0.0009	0.0043	0.0024
Iron	ug/l	300	mg/L	0.3	**0.793**	0.503	1.13	**1.08**

					Not impacted	Not impacted	Not impacted	Not impacted
					Western Stream	Western Stream	Western Stream	Western Stream
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS6 30-April-2018** GS-6	**GS6 20-Aug-2018** GS-6	**GS6 5-Nov-2018** GS-6	**S1 30-April-2018** S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00022	0.00013	0.00061	0.00062
Magnesium	ug/l	--	mg/L	--	6.5	7.35	8.62	7.55
Manganese	ug/l	--	mg/L	--	0.055	0.024	0.077	0.06
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	<0.00002
Molybdenum	ug/l	40	mg/L	0.04	<0.0001	0.0003	0.0003	0.0003
Nickel	ug/l	25	mg/L	0.025	0.001	0.00008	0.0017	0.002
Potassium	ug/l	--	mg/L	--	0.8	1.4	1	1.3
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3.78	6.29	5.95	4.5
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.0002	< 0.00002	<0.00002
Sodium	ug/l	--	mg/L	--	6.5	12.1	9.6	12
Strontium	ug/l	--	mg/L	--	0.094	0.096	0.118	0.108
Sulfur	ug/l	--	mg/L	--	2.1	3.2	3.6	2.4
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	< 0.00005	0.00022
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.011	0.006	0.022	0.024
Vanadium	ug/l	6	mg/L	0.006	0.0021	0.0018	0.0015	0.0028
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**0.042**	0.022	0.011	0.02
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	0.002	0.002	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.99	6.85	11.1	7.04
Conductivity (Field)	uS/cm	--	uS/cm	--	140	224	191	178
pH (Field)	-	8.5	-	8.5	7.6	7.9	7.3	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9	19.2	4.6	8.8

					Not impacted	Not impacted	Not impacted	Not impacted
					Western Stream	Western Stream	Western Stream	Western Stream
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**S1 20-Aug-2018** S-1	**S1 5-Nov-2018** S-1	**S2 30-April-2018** S-2	**S2 20-Aug-2018** S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	131	81	69	148
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.05	0.04	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3	<3	<3	<3
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	76	28
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	54	33.6	20.7	48.9
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	242	457
Dissolved Organic Carbon	ug/l	--	mg/L	--	7.8	15	12.4	9
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	115	114	96	155
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	0.69	0.26
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<0.05	<0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	0.6	0.5
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	0.1	0.07	**0.12**	**0.09**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	7	--	7	13
Total Dissolved Solids	ug/l	--	mg/L	--	229	158	120	242
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	**0.95**	**0.47**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	**0.13**	**0.04**
Barium	ug/l	--	mg/L	--	--	--	0.034	0.03
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	0.043	0.008	0.012	0.042
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	0.000018	0.000015
Calcium	ug/l	--	mg/L	--	--	30.6	25.5	39
Chromium	ug/l	--[14]	mg/L	14	--	--	0.003	<0.001
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	0.0007	0.0002
Copper	ug/l	5	mg/L	0.005	--	--	0.0029	0.0013
Iron	ug/l	300	mg/L	0.3	**1.44**	**1.01**	**1.27**	**1.08**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	Not impacted Western Stream S1 20-Aug-2018 S-1	Not impacted Western Stream S1 5-Nov-2018 S-1	Not impacted Western Stream S2 30-April-2018 S-2	Not impacted Western Stream S2 20-Aug-2018 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	0.00079	0.00003
Magnesium	ug/l	--	mg/L	--	--	9.8	7.88	10.1
Manganese	ug/l	--	mg/L	--	0.048	0.061	0.063	0.091
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	--	--	0.0004	0.0004
Nickel	ug/l	25	mg/L	0.025	--	--	0.0024	0.0009
Potassium	ug/l	--	mg/L	--	--	--	1.9	2.2
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	4.89	6.49
Silver	ug/l	0.1	mg/L	0.0001	--	--	< 0.00002	< 0.0001
Sodium	ug/l	--	mg/L	--	41.7	19.9	14.1	38.9
Strontium	ug/l	--	mg/L	--	--	--	0.11	0.153
Sulfur	ug/l	--	mg/L	--	--	--	2.4	4.3
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	0.00022	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	0.043	0.029
Vanadium	ug/l	6	mg/L	0.006	--	--	0.0035	0.0018
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	0.022	0.028
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	< 0.001	0.002
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.88	12.6	7.06	7.57
Conductivity (Field)	uS/cm	--	uS/cm	--	355	253	190	367
pH (Field)	-	8.5	-	8.5	7.9	7.2	7.6	7.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	20	4.3	8	19

					Not impacted	Not impacted	Not impacted	Not impacted
					Western Stream	Western Ditch	Western Ditch	Western Ditch
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**S2 5-Nov-2018** S-2	**GS17 30-April-2018** GS-17	**GS17 20-Aug-2018** GS-17	**GS17 5-Nov-2018** GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	84	66	220	98
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.03	0.03	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4	< 3	< 3	6
Chemical Oxygen Demand	ug/l	--	mg/L	--	46	82	24	44
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	33.8	27.2	147	66.8
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	327	259	877	456
Dissolved Organic Carbon	ug/l	--	mg/L	--	12	13.9	5.6	13.6
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	123	95	130	136
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1.25	0.05	0.06	0.6
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.6	0.7	0.5	0.7
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.07**	**0.19**	**0.23**	**0.18**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	14	6	3.6	5.2
Total Dissolved Solids	ug/l	--	mg/L	--	164	127	477	232
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	**0.32**	1.24	1.54	0.58
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.12**	**0.14**	**0.03**	**0.12**
Barium	ug/l	--	mg/L	--	0.036	0.037	0.042	0.038
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.001	< 0.002	< 0.002	< 0.001
Boron	ug/l	200[12]	mg/L	0.2[12]	0.012	0.013	0.185	0.013
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000018	0.000045	0.000025	0.000027
Calcium	ug/l	--	mg/L	--	32.9	24.9	34	36
Chromium	ug/l	--[14]	mg/L	14	0.001	0.004	0.006	0.003
Cobalt	ug/l	0.9	mg/L	0.0009	0.0003	0.0008	0.0012	0.0004
Copper	ug/l	5	mg/L	0.005	0.0015	0.0033	0.004	0.007
Iron	ug/l	300	mg/L	0.3	**0.916**	**1.46**	**2.14**	**0.983**

					Not impacted	Not impacted	Not impacted	Not impacted
					Western Stream	Western Ditch	Western Ditch	Western Ditch
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**S2 5-Nov-2018** S-2	**GS17 30-April-2018** GS-17	**GS17 20-Aug-2018** GS-17	**GS17 5-Nov-2018** GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.0002	0.00083	0.00078	0.00047
Magnesium	ug/l	--	mg/L	--	9.82	7.89	8.82	11.2
Manganese	ug/l	--	mg/L	--	0.052	0.068	0.053	0.038
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0002	<0.0001	0.0007	0.0003
Nickel	ug/l	25	mg/L	0.025	0.0012	0.0027	0.0038	0.0021
Potassium	ug/l	--	mg/L	--	1.5	2.2	4.3	2.4
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5.97	5.01	6.33	6.18
Silver	ug/l	0.1	mg/L	0.0001	< 0.0001	0.00002	<0.00001	<0.00001
Sodium	ug/l	--	mg/L	--	20.8	18.1	139	39
Strontium	ug/l	--	mg/L	--	0.138	0.116	0.14	0.166
Sulfur	ug/l	--	mg/L	--	4.4	2	10	17
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.000022	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.015	0.049	0.095	0.03
Vanadium	ug/l	6	mg/L	0.006	0.0014	0.0039	0.0074	0.0018
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.016	0.042	0.019	0.01
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.002	< 0.001	0.002	0.002
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12.1	7.15	7.85	11.9
Conductivity (Field)	uS/cm	--	uS/cm	--	259	202	663	375
pH (Field)	-	8.5	-	8.5	7.3	7.6	7.7	7.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.1	9.2	19.6	3.6

					Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
					On-site pond	On-site pond	On-site pond	On-site pond
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS11 30-April-2018** GS11	**GS11 20-Aug-2018** GS-11	**GS11 5-Nov-2018** GS-11	**GS12 30-April-2018** GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	631	609	727	300
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**1.39**	0.05	**0.33**	**0.38**
Ammonia Nitrogen	ug/l	--	mg/L	--	17.2	1.18	5.78	3.22
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	10	6	<3
Chemical Oxygen Demand	ug/l	--	mg/L	--	166	124	131	90
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	162	**255**	**259**	82.9
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	1630	2000	1970	860
Dissolved Organic Carbon	ug/l	--	mg/L	--	24.6	25.6	20.5	17
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	506	636	601	292
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	3.94	0.92	1.83	0.35
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	0.18	0.06	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	22.5	4.1	9.8	5.1
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	**0.07**	**0.02**	**0.07**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	37	155	64	29
Total Dissolved Solids	ug/l	--	mg/L	--	947	1241	1193	469
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	**0.11**	**0.13**	**0.1**	0.06
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.08**	**0.08**	**0.1**	0.05
Barium	ug/l	--	mg/L	--	0.138	0.149	0.142	0.024
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**2.25**	**2.59**	**1.82**	**0.75**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.00002	<0.00014	<0.000020	<0.000015
Calcium	ug/l	--	mg/L	--	130	149	147	70.4
Chromium	ug/l	--[14]	mg/L	14	0.003	0.004	0.003	< 0.001
Cobalt	ug/l	0.9	mg/L	0.0009	**0.0023**	**0.0035**	**0.0028**	0.0006
Copper	ug/l	5	mg/L	0.005	**0.0062**	0.0042	0.0049	0.0012
Iron	ug/l	300	mg/L	0.3	**0.4**	**1.69**	**0.481**	0.087

					Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
					On-site pond	On-site pond	On-site pond	On-site pond
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS11 30-April-2018** GS11	**GS11 20-Aug-2018** GS-11	**GS11 5-Nov-2018** GS-11	**GS12 30-April-2018** GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00007	0.00021	0.00009	
Magnesium	ug/l	--	mg/L	--	44	56.7	56.8	28.2
Manganese	ug/l	--	mg/L	--	0.457	1.21	0.709	0.164
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0005	<0.001	0.0004	<0.0001
Nickel	ug/l	25	mg/L	0.025	0.0109	0.0163	0.0111	0.0058
Potassium	ug/l	--	mg/L	--	31.8	25.3	31.6	11.3
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4.27	5.88	4.21	1.36
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	140	230	189	63
Strontium	ug/l	--	mg/L	--	0.854	1.08	1.06	0.433
Sulfur	ug/l	--	mg/L	--	12.1	46.3	19.2	9.3
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00020	< 0.00005	< 0.00005	0.0002
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<0.005	0.008	<0.005	< 0.005
Vanadium	ug/l	6	mg/L	0.006	0.0023	**0.006**	0.0023	0.0011
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<0.005	0.024	0.013	0.005
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	0.015	0.01	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.05	4.47	11.7	8.85
Conductivity (Field)	uS/cm	--	uS/cm	--	1431	1310	1069	730
pH (Field)	-	8.5	-	8.5	7.6	7.5	7.4	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8.5	17.3	6.2	10.6

					Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
					On-site pond	On-site pond	On-site pond	On-site pond
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS12 20-Aug-2018** GS-12	**GS12 5-Nov-2018** GS-12	**GS15 30-April-2018** GS-15	**GS15 20-Aug-2018** GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	176	254	306	169
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**0.02**	<0.01	**0.42**	**0.03**
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.09	3.41	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	5	7	<3	4
Chemical Oxygen Demand	ug/l	--	mg/L	--	95	71	100	92
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	96.2	96.4	84.5	93.9
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	686	797	861	661
Dissolved Organic Carbon	ug/l	--	mg/L	--	20.5	17.3	17.5	20.3
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	168	219	286	160
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	< 0.05	< 0.05	0.36	< 0.05
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2.4	1.9	5.4	2.3
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.07**	**0.05**	**0.07**	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	24	27	30	23
Total Dissolved Solids	ug/l	--	mg/L	--	362	434	472	348
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	0.05	0.06	0.06	**0.04**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.03	0.047	0.05	**0.03**
Barium	ug/l	--	mg/L	--	0.009	0.049	0.037	0.008
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**0.852**	**0.807**	**0.729**	**0.819**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.00014	0.000025	<0.000015	<0.000015
Calcium	ug/l	--	mg/L	--	17.4	39.2	69.4	15.7
Chromium	ug/l	--[14]	mg/L	14	< 0.002	< 0.001	0.001	<0.001
Cobalt	ug/l	0.9	mg/L	0.0009	< 0.001	0.0004	0.0006	0.0003
Copper	ug/l	5	mg/L	0.005	0.0017	0.0087	0.0011	0.0003
Iron	ug/l	300	mg/L	0.3	0.074	0.159	0.086	0.035

					Moderate Impact	Moderate Impact	Moderate Impact	Moderate Impact
					On-site pond	On-site pond	On-site pond	On-site pond
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS12 20-Aug-2018** GS-12	**GS12 5-Nov-2018** GS-12	**GS15 30-April-2018** GS-15	**GS15 20-Aug-2018** GS-15
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00044	0.00037	0.00003	0.00005
Magnesium	ug/l	--	mg/L	--	28.6	29.4	27.4	27.9
Manganese	ug/l	--	mg/L	--	0.109	0.056	0.202	0.116
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	<0.001	0.0004	<0.0001	0.0002
Nickel	ug/l	25	mg/L	0.025	0.0054	0.0048	0.0056	0.0037
Potassium	ug/l	--	mg/L	--	10.6	11.7	11	9.9
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	1.27	0.35	1.33	1.17
Silver	ug/l	0.1	mg/L	0.0001	< 0.0002	< 0.0001	< 0.00002	< 0.0001
Sodium	ug/l	--	mg/L	--	78.6	76.9	61.5	75
Strontium	ug/l	--	mg/L	--	0.216	0.348	0.43	0.203
Sulfur	ug/l	--	mg/L	--	8.1	8.7	9.1	7.5
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.005	0.005	< 0.000021	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	< 0.005	0.005	<0.005
Vanadium	ug/l	6	mg/L	0.006	0.0027	0.0015	0.0012	0.0024
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.019	0.011	0.006	0.021
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	0.004	0.003	< 0.001	0.003
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9.68	12.7	9.3	12.42
Conductivity (Field)	uS/cm	--	uS/cm	--	510	572	737	496
pH (Field)	-	8.5	-	8.5	9.2	8	8.2	9.5
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	29.1	4.5	10.4	29.8

					Moderate Impact	Not impacted	Not impacted	Not impacted
					On-site pond	Eastern ditch	Eastern ditch	Eastern ditch
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS15 5-Nov-2018** GS-15	**GS20 30-April-2018** GS-20	**GS20 20-Aug-2018** GS-20	**GS20 5-Nov-2018** GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	224	93	92	116
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.04	0.09	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	9	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	80	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	94.1	44.6	36.1	46.5
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	752	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	17.2	10.1	7.3	8.4
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	207	116	128	143
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.1	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1.9	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	**0.13**	0.23	0.08
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	27	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	404	--	203	235
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals						--	--	--
Aluminum	ug/l	75	mg/L	0.075	**0.04**	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.1	--	--	--
Barium	ug/l	--	mg/L	--	0.045	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	**0.766**	0.052	0.085	0.059
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000021	--	--	--
Calcium	ug/l	--	mg/L	--	36.8	--	--	32.1
Chromium	ug/l	--[14]	mg/L	14	<0.001	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.0004	--	--	--
Copper	ug/l	5	mg/L	0.005	0.0062	--	--	--
Iron	ug/l	300	mg/L	0.3	0.163	**1.89**	5.75	1.04

					Moderate Impact	Not impacted	Not impacted	Not impacted
					On-site pond	Eastern ditch	Eastern ditch	Eastern ditch
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS15 5-Nov-2018** GS-15	**GS20 30-April-2018** GS-20	**GS20 20-Aug-2018** GS-20	**GS20 5-Nov-2018** GS-20
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00031	--	--	--
Magnesium	ug/l	--	mg/L	--	28.1	--	--	15.3
Manganese	ug/l	--	mg/L	--	0.05	0.048	0.18	0.032
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	0.0003	--	--	--
Nickel	ug/l	25	mg/L	0.025	0.0043	--	--	--
Potassium	ug/l	--	mg/L	--	11	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	0.32	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	< 0.0001	--	--	--
Sodium	ug/l	--	mg/L	--	72.5	--	30	36.4
Strontium	ug/l	--	mg/L	--	0.325	--	--	--
Sulfur	ug/l	--	mg/L	--	8.3	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.005	--	--	--
Vanadium	ug/l	6	mg/L	0.006	0.0013	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.012	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	0.002	< 0.001	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11.6	7.46	6.28	9.5
Conductivity (Field)	uS/cm	--	uS/cm	--	563	324	310	371
pH (Field)	-	8.5	-	8.5	8	7.6	8.1	7.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.6	9.5	24.8	6.4

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	Not impacted Eastern ditch GS21 30-April-2018 GS-21	Not impacted Eastern ditch GS21 20-Aug-2018 GS-21	Not impacted Eastern ditch GS21 5-Nov-2018 GS-21	
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	82	90	110	
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	0.01	< 0.01	
Ammonia Nitrogen	ug/l	--	mg/L	--	0.03	0.04	0.03	
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	26.7	33.3	37.2	
Color	color unit	--	color unit	--	--	--	--	
Conductivity	umho/cm	--	umho/cm	--	--	--	--	
Dissolved Organic Carbon	ug/l	--	mg/L	--	9.4	5.9	6.7	
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	113	114	132	
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.11**	**0.07**	**0.05**	
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	
Total Dissolved Solids	ug/l	--	mg/L	--	--	189	210	
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	
Metals					--	--	--	
Aluminum	ug/l	75	mg/L	0.075	--	--	--	
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	
Barium	ug/l	--	mg/L	--	--	--	--	
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	
Boron	ug/l	200[12]	mg/L	0.2[12]	0.03	0.056	0.035	
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	
Calcium	ug/l	--	mg/L	--	--	--	29.6	
Chromium	ug/l	--[14]	mg/L	14	--	--	--	
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	
Copper	ug/l	5	mg/L	0.005	--	--	--	
Iron	ug/l	300	mg/L	0.3	**2.15**	**1.39**	**0.746**	

					Not impacted	Not impacted	Not impacted	
					Eastern ditch	Eastern ditch	Eastern ditch	
Parameter	**Unit (< June 2016)**	**[2] [1] PWQO**	**Unit (June 2016+)**	**[2] [1] PWQO**	**GS21 30-April-2018** GS-21	**GS21 20-Aug-2018** GS-21	**GS21 5-Nov-2018** GS-21	
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	
Magnesium	ug/l	--	mg/L	--	--	--	14.2	
Manganese	ug/l	--	mg/L	--	0.041	0.032	0.017	
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	
Nickel	ug/l	25	mg/L	0.025	--	--	--	
Potassium	ug/l	--	mg/L	--	--	--	--	
Selenium	ug/l	100	mg/L	0.1	--	--	--	
Silicon	ug/l	--	mg/L	--	--	--	--	
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	
Sodium	ug/l	--	mg/L	--	24.1	27.2	29.3	
Strontium	ug/l	--	mg/L	--	--	--	--	
Sulfur	ug/l	--	mg/L	--	--	--	--	
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	
Tin	ug/l	--	mg/L	--	--	--	--	
Titanium	ug/l	--	mg/L	--	--	--	--	
Vanadium	ug/l	6	mg/L	0.006	--	--	--	
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	--	--	
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7.69	5.36	9.6	
Conductivity (Field)	uS/cm	--	uS/cm	--	259	298	344	
pH (Field)	-	8.5	-	8.5	7.7	8	7.5	
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.7	22.2	6.8	

APPENDIX I-2

Historical Data (PDF Only)

SURFACE WATER DATA

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 01-Nov-1990	S1 08-Aug-1991	S1 04-Dec-1991 [25]	S1 29-Apr-1992
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	88000	--	--	47000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<100	--	--	<100
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	26000	--	--	33000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	6000	3200	--	5000
Color	color unit	--	color unit	--	--	--	--	133
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12600	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	93000	--	--	65000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	--	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	930	--	--	430
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	930	--	--	430
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	--	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	17000	18200	--	13000
Total Dissolved Solids	ug/l	--	mg/L	--	200000	168000	--	90000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	13400
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	7000
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	5.2
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	--	**900**
Barium	ug/l	--	mg/L	--	--	--	--	30
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	<10
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	--	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	--	<0.2
Calcium	ug/l	--	mg/L	--	24000	--	--	16000
Chromium	ug/l	-- [14]	mg/L	14	--	--	--	<10
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	<10
Copper	ug/l	5	mg/L	0.005	<50	--	--	<5
Iron	ug/l	300	mg/L	0.3	**2430**	**6520**	--	**920**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 01-Nov-1990	S1 08-Aug-1991	S1 04-Dec-1991 [25]	S1 29-Apr-1992
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<50	--	--	<2
Magnesium	ug/l	--	mg/L	--	8000	--	--	6000
Manganese	ug/l	--	mg/L	--	120	230	--	100
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<100	--	--	<0.2
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	<10
Nickel	ug/l	25	mg/L	0.025	<50	--	--	<10
Potassium	ug/l	--	mg/L	--	2000	--	--	<1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	<1
Silicon	ug/l	--	mg/L	--	--	--	--	3400
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	<0.1
Sodium	ug/l	--	mg/L	--	5000	3000	--	5000
Strontium	ug/l	--	mg/L	--	--	--	--	<10
Sulfur	ug/l	--	mg/L	--	--	--	--	6000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	<50
Tin	ug/l	--	mg/L	--	--	--	--	<50
Titanium	ug/l	--	mg/L	--	--	--	--	30
Vanadium	ug/l	6	mg/L	0.006	--	--	--	**20**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<50	--	--	30
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	--	11200
Conductivity (Field)	uS/cm	--	uS/cm	--	--	147	--	174
pH (Field)	-	8.5	-	8.5	7.88	--	--	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	--	--	10

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 06-Sep-1992	S1 28-Nov-1992	S1 04-May-1993 [4]	S1 29-Aug-1993 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	100000	72000	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	<100	40	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	<1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	25000	32000	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	13000	--	--
Color	color unit	--	color unit	--	45	183	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	112000	81000	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	240	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	760	440	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	760	400	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**80**	**110**	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	8000	15000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	170000	104000	--	--
Total Organic Carbon	ug/l	--	mg/L	--	11000	15000	--	--
Total Suspended Solids	ug/l	--	mg/L	--	35000	40000	--	--
Turbidity	ntu	--[9]	ntu	--[9]	14	11	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**1320**	**1140**	--	--
Barium	ug/l	--	mg/L	--	50	30	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<10	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	<10	<10	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	--	--
Calcium	ug/l	--	mg/L	--	30000	21000	--	--
Chromium	ug/l	--[14]	mg/L	14	20	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<10	--	--	--
Copper	ug/l	5	mg/L	0.005	5	<5	--	--
Iron	ug/l	300	mg/L	0.3	**3350**	**1440**	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 06-Sep-1992	S1 28-Nov-1992	S1 04-May-1993 [4]	S1 29-Aug-1993 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	--	--
Magnesium	ug/l	--	mg/L	--	9000	7000	--	--
Manganese	ug/l	--	mg/L	--	470	80	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	--	--
Potassium	ug/l	--	mg/L	--	3000	2000	--	--
Selenium	ug/l	100	mg/L	0.1	<1	<1	--	--
Silicon	ug/l	--	mg/L	--	5500	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	--
Sodium	ug/l	--	mg/L	--	9000	8000	--	--
Strontium	ug/l	--	mg/L	--	120	80	--	--
Sulfur	ug/l	--	mg/L	--	3000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<50	--	--	--
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<10	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**1300**	11900	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	270	180	--	--
pH (Field)	-	8.5	-	8.5	6.8	7.1	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9	2	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 11-Nov-1993 [4]	S1 04-Jun-1994	S1 07-Sep-1994	S1 24-Nov-1994 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	83000	128000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	33000	25000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	10000	14000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	14100	7100	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	107000	145000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	110000	190000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	-- [14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	--	--	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 11-Nov-1993 [4]	S1 04-Jun-1994	S1 07-Sep-1994	S1 24-Nov-1994 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	8000	6000	--
Strontium	ug/l	--	mg/L	--	--	80	130	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	11100	10500	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	180	280	--
pH (Field)	-	8.5	-	8.5	--	6.7	7.7	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	12	12	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 28-May-1995	S1 11-Sep-1995	S1 07-Nov-1995	S1 17-Jul-1996
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	91000	132000	--	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	31000	18000	--	31000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	11000	11000	12000	18000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11200	7800	--	11300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	105000	140000	--	84000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	**80**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	136000	192000	--	152000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1590**	**1660**	**1640**	**460**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S1 28-May-1995	S1 11-Sep-1995	S1 07-Nov-1995	S1 17-Jul-1996
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	130	100	--	50
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	8000	13000	--	12000
Strontium	ug/l	--	mg/L	--	91	150	--	97
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	11000	-- (23)	--	8700
Conductivity (Field)	uS/cm	--	uS/cm	--	210	310	230	170
pH (Field)	-	8.5	-	8.5	7	7.5	8.1	6.3
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	14	17	6	20

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 22-Nov-1996	S1 10-Jun-1997	S1 09-Sep-1997	S1 09-Jun-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	79000	105000	103000	99000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	29000	35000	33000	18000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	10000	12000	13000	13000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10200	11100	13000	9700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	97000	103000	115000	108000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	128000	156000	160000	148000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	28000	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1330**	**1600**	**6830**	**560**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S1 22-Nov-1996	S1 10-Jun-1997	S1 09-Sep-1997	S1 09-Jun-1998
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	8000	--	--
Manganese	ug/l	--	mg/L	--	150	190	1630	<10
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	9000	10000	9000	8000
Strontium	ug/l	--	mg/L	--	80	109	141	103
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	--	5400	**5200**	6400
Conductivity (Field)	uS/cm	--	uS/cm	--	130	290	230	200
pH (Field)	-	8.5	-	8.5	7	6.8	7	7.45
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	0.5	20	17	27

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 20-Aug-1998	S1 25-May-1999	S1 31-Aug-1999	S1 01-Jun-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	126000	89000	129000	74000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	22000	29000	23000	36000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	15000	13000	25000	8000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8500	12400	7800	13300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	129000	96000	132000	75000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	196000	136000	208000	116000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	20000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**2730**	**1410**	**1490**	70

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 20-Aug-1998	S1 25-May-1999	S1 31-Aug-1999	S1 01-Jun-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	6000
Manganese	ug/l	--	mg/L	--	190	90	270	10
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	12000	--	23000	8000
Strontium	ug/l	--	mg/L	--	119	82	105	212
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8900	9700	12400	**3100**
Conductivity (Field)	uS/cm	--	uS/cm	--	230	160	265	230
pH (Field)	-	8.5	-	8.5	6.8	7.6	6.45	6.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	18	16	19	11

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 18-Aug-2000	S1 30-May-2001	S1 10-Aug-2001	S1 05-Apr-2002
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	104000	88000	110000	47000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	80	60	90
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	23000	19000	13000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	13000	9600	3000	9300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	98000	110000	115000	63000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**80**	**270**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	192000	228000	176000	118000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	<10	20	<50
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	26000	29000	31000	17000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1220**	**1000**	**2390**	**890**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 18-Aug-2000	S1 30-May-2001	S1 10-Aug-2001	S1 05-Apr-2002
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	8000	9000	9000	5000
Manganese	ug/l	--	mg/L	--	60	100	520	70
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	11000	12000	14000	10000
Strontium	ug/l	--	mg/L	--	85	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6890	10660	8340	12100
Conductivity (Field)	uS/cm	--	uS/cm	--	231	661	206	140
pH (Field)	-	8.5	-	8.5	7.5	6.9	8.3	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15.6	9.2	25.5	4

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S1 06-Aug-2002 (28)	S1 01-Nov-2002	S1 12-May-2003	S1 26-Aug-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- (5)	mg/L	-- (5)	--	116000	69000	168000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<20	250	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	19000	27000	48000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	6300	12500	9500
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	136000	94000	178000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	--	30	**130**	**100**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	218000	174000	302000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- (9)	ntu	-- (9)	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 (10)	mg/L	0.015-0.075 (10)	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 (11)	mg/L	0.011-1.1 (11)	--	--	--	--
Boron	ug/l	200 (12)	mg/L	0.2 (12)	--	<50	<50	<50
Cadmium	ug/l	0.2 (13)	mg/L	0.0002 (13)	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	38000	26000	50000
Chromium	ug/l	-- (14)	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	--	300	**810**	**490**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 06-Aug-2002 [28]	S1 01-Nov-2002	S1 12-May-2003	S1 26-Aug-2003
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	10000	7000	13000
Manganese	ug/l	--	mg/L	--	--	34	75	281
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	15000	16000	24000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	**5820**	9280	**4920**
Conductivity (Field)	uS/cm	--	uS/cm	--	--	210	160	140
pH (Field)	-	8.5	-	8.5	--	7.3	7.4	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	3	6	13

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 19-Nov-2003	S1 26-May-2004	S1 28-Aug-2004	S1 25-Nov-2004
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	70000	76000	114000	71000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	60	80	<30
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	18000	15700	13300	21100
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11700	17800	14400	13900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	84000	92700	118600	101200
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**80**	**36**	**167**	**58**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	159000	168000	158000	194000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	<10	<10	10	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	22000	25500	33900	27000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**800**	**1500**	**2000**	**1760**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 19-Nov-2003	S1 26-May-2004	S1 28-Aug-2004	S1 25-Nov-2004
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	7000	7020	8190	8200
Manganese	ug/l	--	mg/L	--	80	67	514	121
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	9000	10500	8600	10700
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**6610**	6780	6310	9380
Conductivity (Field)	uS/cm	--	uS/cm	--	200	172	180	510
pH (Field)	-	8.5	-	8.5	7.2	7.15	7.2	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1	15.8	17	2

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 26-May-2005	S1 26-Aug-2005	S1 15-Nov-2005	S1 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	86000	134000	76000	94000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	80	40	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	17000	44000	24000	22000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10900	6000	14100	13800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	94000	163000	104000	91000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**70**	**300**	**90**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	155000	283000	168000	177000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	20	30	<10	30
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	26000	44000	27000	25000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1090**	**3590**	**1490**	**1210**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 26-May-2005	S1 26-Aug-2005	S1 15-Nov-2005	S1 01-Jun-2006
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	7000	13000	9000	7000
Manganese	ug/l	--	mg/L	--	80	190	120	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	10000	25000	14000	18000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8910	7500	7400	**4000**
Conductivity (Field)	uS/cm	--	uS/cm	--	239	600	120	273
pH (Field)	-	8.5	-	8.5	7.2	6.9	7.4	8.5
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9	19.2	8.2	21

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 06-Sep-2006	S1 20-Nov-2006	S1 29-May-2007	S1 23-Aug-2007
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	73000	61000	100000	218000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	40	50	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	19000	11000	27000	69000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	16000	15300	11300	7000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	91000	75000	100000	130000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**110**	**80**	**160**	**580**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	155000	116000	190000	430000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	10	20	40	**270**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	25000	20000	27000	34000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1440**	**1310**	**1790**	**1400**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 06-Sep-2006	S1 20-Nov-2006	S1 29-May-2007	S1 23-Aug-2007
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	7000	6000	8000	11000
Manganese	ug/l	--	mg/L	--	70	110	160	160
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	11000	7000	17000	95000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10100	10140	9390	**2010**
Conductivity (Field)	uS/cm	--	uS/cm	--	238	490	350	600
pH (Field)	-	8.5	-	8.5	7.2	7.2	8.2	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11	2	16.2	19.1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 25-Nov-2007	S1 01-May-2008	S1 11-Aug-2008	S1 04-Nov-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	90000	48000	120000	83000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	140	100	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	18000	14000	42000	25000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9400	15100	11600	15600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	103000	66000	108000	86000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**180**	**100**	**190**	**120**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	175000	106000	249000	180000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	10	<10	50	20
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	28000	18000	30000	23000
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**740**	**1130**	**1320**	**1120**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 25-Nov-2007	S1 01-May-2008	S1 11-Aug-2008	S1 04-Nov-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	8000	5000	8000	7000
Manganese	ug/l	--	mg/L	--	60	70	140	110
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	10000	9000	32000	16000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8800	10620	**3910**	9270
Conductivity (Field)	uS/cm	--	uS/cm	--	220	120	360	235
pH (Field)	-	8.5	-	8.5	7.9	7	7.4	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	0.3	11.3	18	5.8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 09-Apr-2009 C-10	S1 05-Aug-2009 S-1	S1 03-Nov-2009 S-1	S1 01-Jun-2010 SW-8
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	52000	84000	83000	134000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.91	0.61	0.11	0.96
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	50	70	170
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	16000	27000	25000	38000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9700	23200	16700	12700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	56000	85000	94000	130000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**74**	**250**	**80**	**170**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	100000	165000	176000	250000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	<20	20	<20	50
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**990**	**2200**	**1500**	**2300**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 09-Apr-2009 C-10	S1 05-Aug-2009 S-1	S1 03-Nov-2009 S-1	S1 01-Jun-2010 SW-8
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	80	110	80	330
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	9500	15000	17000	34000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11970	9710	10600	13810
Conductivity (Field)	uS/cm	--	uS/cm	--	165	252	259	437
pH (Field)	-	8.5	-	8.5	8.2	7.59	7.04	7.29
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.2	17.1	7.3	15.8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 13-Aug-2010 0-1	S1 12-Nov-2010 S-1	S1 28-Apr-2011 B-1	S1 24-Aug-2011 S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	158000	90000	54000	145000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.04	<0.01	<0.61	<0.82
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	<50	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	57000	20000	12000	42000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8900	11900	13100	6300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	90000	66000	120000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**180**	**69**	**280**	**120**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	316000	160000	96000	252000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	70	<20	<20	80
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**3000**	**1700**	**3400**	**1100**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 13-Aug-2010 0-1	S1 12-Nov-2010 S-1	S1 28-Apr-2011 B-1	S1 24-Aug-2011 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	160	130	90	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	53000	16000	7600	48000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8850	8260	7970	11600
Conductivity (Field)	uS/cm	--	uS/cm	--	467	267	655	285
pH (Field)	-	8.5	-	8.5	6.39	6.24	7.63	7.75
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15.6	1.7	15.7	16.1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 07-Nov-2011 S-1	S1 05-Jun-2012 S-1	S1 29-Aug-2012 S-1	S1 19-Nov-2012 S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	118000	58000	250000	150000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.13	<0.21	<1.72	0.27
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	<50	<50	70
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	30000	20000	47000	37000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7600	22000	5100	4600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	110000	75000	56000	140000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**72**	**83**	**360**	**87**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	154000	168000	396000	262000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	30	<20	**300**	60
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**900**	**1900**	**3000**	**730**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 07-Nov-2011 S-1	S1 05-Jun-2012 S-1	S1 29-Aug-2012 S-1	S1 19-Nov-2012 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	90	90	70	40
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	28000	14000	130000	44000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12550	8950	5910	10490
Conductivity (Field)	uS/cm	--	uS/cm	--	601	798	657	489
pH (Field)	-	8.5	-	8.5	7.30	7.21	8.09	7.67
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	5.2	14.5	15.8	0.2

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 22-Apr-2013 S-1	S1 06-Sep-2013 S-1	S1 29-Nov-2013 S-1	S1 09-May-2014 S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	48000	160000	100000	82000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	0.49	<0.51	0.43	1.47
Ammonia Nitrogen	ug/l	--	mg/L	--	77	<50	95	87
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	38000	27000	23000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12000	6200	10000	11000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	61000	120000	110000	88000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**130**	**130**	**94**	**76**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	142000	272000	192000	156000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	<20	90	30	<20
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1300**	**2100**	**1500**	**1200**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 22-Apr-2013 S-1	S1 06-Sep-2013 S-1	S1 29-Nov-2013 S-1	S1 09-May-2014 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	70	70	150	110
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	9700	57000	22000	18000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	14850	9770	-- [23]	10960
Conductivity (Field)	uS/cm	--	uS/cm	--	147	481	-- [23]	252
pH (Field)	-	8.5	-	8.5	7.79	7.73	7.74	7.97
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2.7	10.4	0.1	9.9

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 27-Aug-2014 S-1	S1 24-Nov-2014 S-1	S1 14-May-2015 S-1	S1 18-Aug-2015 [29] S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	160000	50000	85000	140000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	2.3	1.15	<0.72	<1.56
Ammonia Nitrogen	ug/l	--	mg/L	--	85	180	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	46000	14000	19000	48000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6200	13000	15000	6900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	130000	56000	96000	160000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**110**	**900**	**36**	**98**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	300000	188000	168000	282000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	80	<20	<20	<20
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1500**	**10000**	**1400**	**2200**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 27-Aug-2014 S-1	S1 24-Nov-2014 S-1	S1 14-May-2015 S-1	S1 18-Aug-2015 [29] S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	80	230	90	140
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	50000	8500	12000	32000
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7890	12900	10410	10080
Conductivity (Field)	uS/cm	--	uS/cm	--	496	177	239	301
pH (Field)	-	8.5	-	8.5	7.95	7.74	7.89	7.96
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.8	4.2	10.2	18.4

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 20-Nov-2015 S-1	S1 07-Dec-2015 S-1	S1 15-Jun-2016 S-1	S1 15-Jun-2016 S-1 Dup
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	93000	--	156	156
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.35	--	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	--	0.07	0.08
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	28000	--	40.3	40.3
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14000	--	7.6	7.9
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	--	111	112
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**180**	**92**	**0.16**	**0.16**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	240000	--	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	<20	--	0.066	0.066
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1200**	--	**2.54**	**2.59**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 20-Nov-2015 S-1	S1 07-Dec-2015 S-1	S1 15-Jun-2016 S-1	S1 15-Jun-2016 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	70	--	0.121	0.12
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	20000	--	46.6	47.1
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10950	--	8.53	--
Conductivity (Field)	uS/cm	--	uS/cm	--	396	--	438	--
pH (Field)	-	8.5	-	8.5	7.71	--	7.3	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.1	--	16.3	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	RPD	S1 22-Aug-2016	S1 22-Aug-2016	RPD
					S-1	S-1	S-1 Dup	S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	0%	121	122	1%
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	NC	< 0.01	< 0.01	NC
Ammonia Nitrogen	ug/l	--	mg/L	--	13%	0.11	0.13	0%
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	0%	41.5	43.6	0%
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	4%	9.7	9.9	0%
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	1%	111	118	0%
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	0%	**0.18**	**0.18**	0%
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	0%	0.047	0.048	0%
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	2%	**0.865**	**0.964**	0%

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	RPD	S1 22-Aug-2016	S1 22-Aug-2016	RPD
					S-1	S-1	S-1	S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	1%	0.077	0.078	0%
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	1%	36.5	38.4	0%
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]		--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	7.01	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	404	--	--
pH (Field)	-	8.5	-	8.5	--	7.2	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	17.8	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 13-Oct-2016 S-1	S1 13-Oct-2016 S-1 Dup	RPD S-1	S1 01-May-2017 S-1	S1 01-May-2017 S-1 Dup (S3)
General Chemistry									
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	206	203	1%	51	50
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	NC	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.07	0.07	0%	0.13	0.13
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	74.4	74.4	0%	9.3	9.4
Color	color unit	--	color unit	--	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	203	183
Dissolved Organic Carbon	ug/l	--	mg/L	--	6.6	6.4	3%	12.3	12.1
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	117	116	1%	104	86
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.17**	**0.18**	6%	**0.4**	**0.39**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	104	93.2
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--	--
Metals									
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	0.107	0.104	3%	0.014	0.012
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1.05**	**1.03**	2%	**9.43**	**6.24**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 13-Oct-2016 S-1	S1 13-Oct-2016 S-1	RPD S-1	S1 01-May-2017 S-1	S1 01-May-2017 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	0.106	0.104	2%	0.23	0.162
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--	--
Sodium	ug/l	--	mg/L	--	79.7	78.7	1%	9.3	8.6
Strontium	ug/l	--	mg/L	--	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--	--
Phenols									
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--	--
Field Measurements									
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7.38	--	--	9.92	--
Conductivity (Field)	uS/cm	--	uS/cm	--	610	--	--	158	--
pH (Field)	-	8.5	-	8.5	7.9	--	--	7.1	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.7	--	--	6.9	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	RPD	S1 20-Sep-2017	S1 20-Sep-2017	RPD
					S-1	S-1	S-1	S-1
							Dup (S3)	
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	2%	148	147	1%
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	NC	< 0.01	< 0.01	NC
Ammonia Nitrogen	ug/l	--	mg/L	--	0%	0.02	0.04	67%
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	1%	31.6	30.9	2%
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	2%	9.6	9.6	0%
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	19%	136	115	17%
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	3%	**0.11**	**0.11**	0%
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	222	222	0%
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	15%	0.061	0.061	0%
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	41%	**1.82**	**1.7**	7%

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	RPD	S1 20-Sep-2017	S1 20-Sep-2017	RPD
					S-1	S-1	S-1	S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	35%	0.104	0.093	11%
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	8%	40.8	38.6	6%
Strontium	ug/l	--	mg/L	--	--		--	--
Sulfur	ug/l	--	mg/L	--	--		--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--		--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	6.75	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	374	--	--
pH (Field)	-	8.5	-	8.5	--	7.8	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	17	--	--

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S1 6-Nov-2017 S-1	S1 30-Apr-2018 S-1	S1 20-Aug-2018 S-1	S1 05-Nov-2018 S-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	57	65	131	81
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.02	0.04	0.05	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<3	<3	<3
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	79	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	9.6	17.1	54	33.6
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	224	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	21.6	16	7.8	15
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	70	94	115	114
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	0.97	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<0.05	<0.05	<0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	0.6	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**0.1**	**0.09**	0.1	0.07
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	7	--
Total Dissolved Solids	ug/l	--	mg/L	--	86	110	229	158
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--(9)	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	0.71	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	0.13	--	--
Barium	ug/l	--	mg/L	--	--	0.033	--	--
Beryllium	ug/l	11-1100 (11)	mg/L	0.011-1.1(11)	--	<0.002	--	--
Boron	ug/l	200(12)	mg/L	0.2(12)	0.009	0.011	0.043	0.008
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	0.000023	--	--
Calcium	ug/l	--	mg/L	--	--	25	--	30.6
Chromium	ug/l	--(14)	mg/L	14	--	0.002	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.0005	--	--
Copper	ug/l	5	mg/L	0.005	--	0.0024	--	--
Iron	ug/l	300	mg/L	0.3	**1.38**	**1.08**	**1.44**	**1.01**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S1 6-Nov-2017 S-1	S1 30-Apr-2018 S-1	S1 20-Aug-2018 S-1	S1 05-Nov-2018 S-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	0.00062	--	--
Magnesium	ug/l	--	mg/L	--	--	7.55	--	9.8
Manganese	ug/l	--	mg/L	--	0.061	0.06	0.048	0.061
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.00002	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	0.0003	--	--
Nickel	ug/l	25	mg/L	0.025	--	0.002	--	--
Potassium	ug/l	--	mg/L	--	--	1.3	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	4.5	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.00002	--	--
Sodium	ug/l	--	mg/L	--	8.1	12	41.7	19.9
Strontium	ug/l	--	mg/L	--	--	0.108	--	--
Sulfur	ug/l	--	mg/L	--	--	2.4	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	0.00022	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	0.024	--	--
Vanadium	ug/l	6	mg/L	0.006	--	0.0028	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	0.02	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	< 0.001	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.79	7.04	6.88	12.6
Conductivity (Field)	uS/cm	--	uS/cm	--	164	178	355	253
pH (Field)	-	8.5	-	8.5	7.6	7.6	7.9	7.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	10	8.8	20	4.3

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 09-Aug-1991	S2 04-Dec-1991	S2 29-Apr-1992	S2 06-Sep-1992
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	--	48000	96000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	<100	<100
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	<1000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	27000	25000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	10400	24000	5000	11000
Color	color unit	--	color unit	--	--	--	131	47
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	--	67000	109000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	200	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	480	560
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	480	560
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	**120**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	31000	17000	12000	6000
Total Dissolved Solids	ug/l	--	mg/L	--	128000	184000	100000	160000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	13600	9800
Total Suspended Solids	ug/l	--	mg/L	--	--	--	6000	9000
Turbidity	ntu	--[9]	ntu	--[9]	--	--	6	4.2
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	**750**	**370**
Barium	ug/l	--	mg/L	--	--	--	30	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	<10	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	<0.2	<0.15
Calcium	ug/l	--	mg/L	--	--	--	17000	29000
Chromium	ug/l	--[14]	mg/L	14	--	--	<10	20
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	<10	<10
Copper	ug/l	5	mg/L	0.005	--	--	<5	<5
Iron	ug/l	300	mg/L	0.3	**3100**	**1760**	**940**	**1480**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 09-Aug-1991	S2 04-Dec-1991	S2 29-Apr-1992	S2 06-Sep-1992
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	<2	<2
Magnesium	ug/l	--	mg/L	--	--	--	6000	9000
Manganese	ug/l	--	mg/L	--	200	70	100	360
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	--	--	20	<10
Nickel	ug/l	25	mg/L	0.025	--	--	<10	<10
Potassium	ug/l	--	mg/L	--	--	--	<1000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	<1	<1
Silicon	ug/l	--	mg/L	--	--	--	3500	6500
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	5000	15000	5000	10000
Strontium	ug/l	--	mg/L	--	--	--	<10	120
Sulfur	ug/l	--	mg/L	--	--	--	5000	2000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<50	<50
Tin	ug/l	--	mg/L	--	--	--	<50	<50
Titanium	ug/l	--	mg/L	--	--	--	<10	<10
Vanadium	ug/l	6	mg/L	0.006	--	--	**20**	<10
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	11700	**4900**
Conductivity (Field)	uS/cm	--	uS/cm	--	164	113	184	260
pH (Field)	-	8.5	-	8.5	--	--	7.2	6.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	--	6	8.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 28-Nov-1992	S2 04-May-1993 [4]	S2 29-Aug-1993 [4]	S2 11-Nov-1993 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	72000	--	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	50	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	41000	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	--	--	--
Color	color unit	--	color unit	--	181	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	83000	--	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	260	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	560	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	510	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**140**	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	18000	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	150000	--	--	--
Total Organic Carbon	ug/l	--	mg/L	--	15000	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	42000	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	11	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**870**	--	--	--
Barium	ug/l	--	mg/L	--	30	--	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	10	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	--	--	--
Calcium	ug/l	--	mg/L	--	20000	--	--	--
Chromium	ug/l	--[14]	mg/L	14	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	--	--	--
Iron	ug/l	300	mg/L	0.3	**1160**	--	--	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 28-Nov-1992	S2 04-May-1993 [4]	S2 29-Aug-1993 [4]	S2 11-Nov-1993 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	--	--
Magnesium	ug/l	--	mg/L	--	8000	--	--	--
Manganese	ug/l	--	mg/L	--	60	--	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	2000	--	--	--
Selenium	ug/l	100	mg/L	0.1	<1	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	8000	--	--	--
Strontium	ug/l	--	mg/L	--	90	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12000	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	190	--	--	--
pH (Field)	-	8.5	-	8.5	7.1	--	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2.5	--	--	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 04-Jun-1994	S2 07-Sep-1994	S2 24-Nov-1994 [4]	S2 28-May-1995
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	81000	112000	--	99000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	50	40	--	20
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	--	1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	15000	--	21000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	9000	13000	--	12000
Color	color unit	--	color unit	--	100	22	--	64
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11500	6400	--	11200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	107000	146000	--	107000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**100**	**60**	--	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	120000	160000	--	140000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	8.1	15	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**120**	50	--	**390**
Barium	ug/l	--	mg/L	--	20	20	--	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	--	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	<10	20	--	20
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	--	<0.15
Calcium	ug/l	--	mg/L	--	28000	42000	--	28000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	--	160
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	0.5	--	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	--	<5
Iron	ug/l	300	mg/L	0.3	**760**	**1460**	--	**1340**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 04-Jun-1994	S2 07-Sep-1994	S2 24-Nov-1994 [4]	S2 28-May-1995
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	--	<2
Magnesium	ug/l	--	mg/L	--	9000	10000	--	9000
Manganese	ug/l	--	mg/L	--	110	90	--	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	--	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	--	<10
Potassium	ug/l	--	mg/L	--	<1000	1000	--	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3900	4600	--	5200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	**0.2**	--	<0.1
Sodium	ug/l	--	mg/L	--	4000	5000	--	8000
Strontium	ug/l	--	mg/L	--	90	130	--	97
Sulfur	ug/l	--	mg/L	--	5000	8000	--	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	--	<10
Tin	ug/l	--	mg/L	--	--	--	--	<50
Titanium	ug/l	--	mg/L	--	<10	<10	--	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	--	**7**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**3**	<1	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9800	10900	--	10700
Conductivity (Field)	uS/cm	--	uS/cm	--	180	260	--	205
pH (Field)	-	8.5	-	8.5	6.5	7.5	--	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11.5	11	--	12.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 11-Sep-1995	S2 07-Nov-1995	S2 17-Jul-1996	S2 22-Nov-1996
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	100000	--	75000	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	--	100	210
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	--	<3000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	13000	--	24000	26000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	12000	18000	10000
Color	color unit	--	color unit	--	13	--	40	48
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7100	--	10200	10000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	121000	--	90000	95000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**120**	**50**	**470**	**100**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	172000	--	152000	140000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**520**	--	**430**	**190**
Barium	ug/l	--	mg/L	--	30	--	20	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	--	<10	10
Boron	ug/l	200[12]	mg/L	0.2[12]	20	--	20	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	--	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	32000	--	23000	23000
Chromium	ug/l	--[14]	mg/L	14	<10	--	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	--	<0.4	0.4
Copper	ug/l	5	mg/L	0.005	<5	--	<5	<5
Iron	ug/l	300	mg/L	0.3	**1380**	**1250**	**830**	**690**

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 11-Sep-1995	S2 07-Nov-1995	S2 17-Jul-1996	S2 22-Nov-1996
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	<2	<2
Magnesium	ug/l	--	mg/L	--	10000	--	8000	9000
Manganese	ug/l	--	mg/L	--	100	--	50	130
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	**0.7**	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	--	<10	<30
Nickel	ug/l	25	mg/L	0.025	<10	--	<10	<10
Potassium	ug/l	--	mg/L	--	2000	--	3000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6900	--	5200	5700
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	10000	--	12000	6000
Strontium	ug/l	--	mg/L	--	154	--	103	83
Sulfur	ug/l	--	mg/L	--	9000	--	6000	<3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	<5	<5
Tin	ug/l	--	mg/L	--	--	--	--	<50
Titanium	ug/l	--	mg/L	--	30	--	20	<10
Vanadium	ug/l	6	mg/L	0.006	<7	--	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	-- [23]	--	8600	12600
Conductivity (Field)	uS/cm	--	uS/cm	--	260	240	160	130
pH (Field)	-	8.5	-	8.5	7.8	8	8.2	6.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	13	6	20	0.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 10-Jun-1997	S2 09-Sep-1997	S2 09-Jun-1998	S2 20-Aug-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	103000	104000	101000	114000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	80	70	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	<1000	17000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	29000	21000	23000	22000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	15000	17000	12000	16000
Color	color unit	--	color unit	--	25	18	48	21
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9100	7400	8700	7700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	110000	134000	115000	136000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	<100	250
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	660	560
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**90**	**90**	**80**	**100**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	16000	22000
Total Dissolved Solids	ug/l	--	mg/L	--	164000	200000	160000	196000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	30	**160**	60	**270**
Barium	ug/l	--	mg/L	--	30	30	20	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	10	20	<10	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	29000	34000	31000	15000
Chromium	ug/l	--[14]	mg/L	14	<10	10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	0.5	0.4	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	**970**	**1010**	**1440**	**1270**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 10-Jun-1997	S2 09-Sep-1997	S2 09-Jun-1998	S2 20-Aug-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	3
Magnesium	ug/l	--	mg/L	--	9000	12000	9000	5000
Manganese	ug/l	--	mg/L	--	110	170	100	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	2000	2000	2000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5100	5500	3500	5400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	10000	11000	8000	6000
Strontium	ug/l	--	mg/L	--	132	161	124	161
Sulfur	ug/l	--	mg/L	--	5000	8000	6000	5000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	--	<50	<50	<50
Titanium	ug/l	--	mg/L	--	10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6900	8100	**4400**	9400
Conductivity (Field)	uS/cm	--	uS/cm	--	650	260	210	240
pH (Field)	-	8.5	-	8.5	7	6.4	7.44	6.5
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	18	16.5	21	17

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-May-1999	S2 31-Aug-1999	S2 01-Jun-2000	S2 18-Aug-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	93000	154000	77000	102000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	60	40	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	<1000	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	34000	13000	33000	28000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	12000	26000	11000	19000
Color	color unit	--	color unit	--	48	9	80	53
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11900	4100	12100	11900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	132000	236000	84000	110000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**70**	**80**	30	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	132000	316000	124000	200000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	<30	**330**	**150**
Barium	ug/l	--	mg/L	--	20	40	70	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	<2	<2
Boron	ug/l	200[12]	mg/L	0.2[12]	<10	30	10	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	25000	63000	22000	29000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	<0.4	<0.4	0.6
Copper	ug/l	5	mg/L	0.005	<5	<5	<10	<1
Iron	ug/l	300	mg/L	0.3	**340**	**640**	**1020**	**1090**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-May-1999	S2 31-Aug-1999	S2 01-Jun-2000	S2 18-Aug-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<1
Magnesium	ug/l	--	mg/L	--	7000	19000	7000	9000
Manganese	ug/l	--	mg/L	--	50	80	50	30
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	1000	2000	1000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4200	6200	4780	6470
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	9000	18000	8000	14000
Strontium	ug/l	--	mg/L	--	94	301	77	96
Sulfur	ug/l	--	mg/L	--	3000	18000	<1000	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<2	<1
Tin	ug/l	--	mg/L	--	<50	<50	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<2	<1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	20	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9800	6800	**4000**	6970
Conductivity (Field)	uS/cm	--	uS/cm	--	170	335	320	253
pH (Field)	-	8.5	-	8.5	7.8	6.6	6.79	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15	17	11	13.3

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S2 30-May-2001	S2 10-Aug-2001 (3)	S2 05-Apr-2002	S2 06-Aug-2002 (28)
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	89000	--	45000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	80	--	80	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	--	2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	22000	--	33000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	23000	--	13000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9300	--	9400	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	107000	--	67000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1150	--	1020	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	810	--	540	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**90**	--	**150**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	13000	--	18000	--
Total Dissolved Solids	ug/l	--	mg/L	--	216000	--	114000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--(9)	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	<50	--	**130**	--
Barium	ug/l	--	mg/L	--	30	--	10	--
Beryllium	ug/l	11-1100 (11)	mg/L	0.011-1.1(11)	<2	--	<2	--
Boron	ug/l	200(12)	mg/L	0.2(12)	<10	--	<50	--
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	<0.1	--	<0.1	--
Calcium	ug/l	--	mg/L	--	28000	--	17000	--
Chromium	ug/l	--(14)	mg/L	14	<1	--	<1	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.2	--	0.3	--
Copper	ug/l	5	mg/L	0.005	1	--	1	--
Iron	ug/l	300	mg/L	0.3	**1050**	--	200	--

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S2 30-May-2001	S2 10-Aug-2001 (3)	S2 05-Apr-2002	S2 06-Aug-2002 (28)
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	<1	--	<1	--
Magnesium	ug/l	--	mg/L	--	9000	--	6000	--
Manganese	ug/l	--	mg/L	--	100	--	50	--
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	<0.1	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	<10	--
Nickel	ug/l	25	mg/L	0.025	<10	--	<10	--
Potassium	ug/l	--	mg/L	--	2000	--	1000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5300	--	4090	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	--
Sodium	ug/l	--	mg/L	--	13000	--	10000	--
Strontium	ug/l	--	mg/L	--	100	--	57	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	<1	--	<1	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	--	<10	--
Vanadium	ug/l	6	mg/L	0.006	<1	--	1	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	<10	--	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	<1	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	10200	--	13100	--
Conductivity (Field)	uS/cm	--	uS/cm	--	646	--	140	--
pH (Field)	-	8.5	-	8.5	6.92	--	7.2	--
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	9.3	--	4	--

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 01-Nov-2002	S2 12-May-2003	S2 26-Aug-2003	S2 19-Nov-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	115000	70000	238000	66000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	220	90	90
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	2000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	13000	36000	23000	26000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	29000	26000	41000	22000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7300	12200	9200	11700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	138000	95000	275000	79000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	640	490	390
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	460	1050	720	520
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**70**	**120**	**80**	**230**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	32000	36000	52000	16000
Total Dissolved Solids	ug/l	--	mg/L	--	241000	169000	402000	156000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<10	**120**	<10	**170**
Barium	ug/l	--	mg/L	--	20	30	40	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	<50	<50	<50	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	37000	25000	74000	20000
Chromium	ug/l	--[14]	mg/L	14	1	3	11	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.3	0.6	0.9	0.6
Copper	ug/l	5	mg/L	0.005	2	3	2	2
Iron	ug/l	300	mg/L	0.3	**400**	**810**	**950**	**960**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 01-Nov-2002	S2 12-May-2003	S2 26-Aug-2003	S2 19-Nov-2003
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	11000	8000	22000	7000
Manganese	ug/l	--	mg/L	--	40	73	368	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	<5	<5
Potassium	ug/l	--	mg/L	--	3000	2000	3000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3700	4700	5500	5400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	17000	16000	24000	14000
Strontium	ug/l	--	mg/L	--	112	87	349	79
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	30	<10	20
Vanadium	ug/l	6	mg/L	0.006	<1	3	4	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<5	<5	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**6110**	9600	**5110**	**7110**
Conductivity (Field)	uS/cm	--	uS/cm	--	280	170	125	230
pH (Field)	-	8.5	-	8.5	7.1	7.7	7.5	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	3	12	15	2

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-May-2004	S2 28-Aug-2004	S2 25-Nov-2004	S2 26-May-2005
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	72000	114000	66000	90000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	40	100	160	140
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<500	1900	2100	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	52000	52000	72000	26000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	16800	13100	29700	18000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	13100	13600	16300	11200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	88400	127900	93300	100000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<200	<200	1900	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<200	600	<200	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	670	660	1880	1020
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**79**	**164**	**448**	**80**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	7800	10800	15200	12000
Total Dissolved Solids	ug/l	--	mg/L	--	168000	172000	218000	164000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	658	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**154**	**1540**	**3260**	50
Barium	ug/l	--	mg/L	--	24	40	53	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	10	12	<5	10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	23800	36100	24400	27000
Chromium	ug/l	--[14]	mg/L	14	<5	<5	8	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	**1.3**	**1.6**	0.5
Copper	ug/l	5	mg/L	0.005	3.9	3.1	**6.3**	3
Iron	ug/l	300	mg/L	0.3	**1750**	**2100**	**3780**	**1020**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-May-2004	S2 28-Aug-2004	S2 25-Nov-2004	S2 26-May-2005
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.6	0.8	1.4	<1
Magnesium	ug/l	--	mg/L	--	7070	9180	7890	8000
Manganese	ug/l	--	mg/L	--	63	550	114	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<5
Nickel	ug/l	25	mg/L	0.025	1	3	5	<5
Potassium	ug/l	--	mg/L	--	1500	3100	8600	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5310	6760	9990	4600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	10000	9500	13300	11000
Strontium	ug/l	--	mg/L	--	80	118	91	103
Sulfur	ug/l	--	mg/L	--	3300	3900	5700	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	31	65	175	30
Vanadium	ug/l	6	mg/L	0.006	2.9	4.1	**6.9**	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	15	17	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	**20**	1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8880	6400	9400	9660
Conductivity (Field)	uS/cm	--	uS/cm	--	170	200	600	252
pH (Field)	-	8.5	-	8.5	7.6	7.2	7.2	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15	18	2	9

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-Aug-2005	S2 15-Nov-2005	S2 01-Jun-2006	S2 06-Sep-2006
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	132000	75000	97000	76000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	70	90	50	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	<1000	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	17000	38000	33000	50000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	37000	22000	24000	21000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6500	14100	13600	18300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	154000	100000	91000	82000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	430	140	500
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	390	580	470	820
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**90**	**90**	**80**	**110**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	13000	16000	10000	9000
Total Dissolved Solids	ug/l	--	mg/L	--	261000	169000	182000	163000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<10	**160**	**300**	**470**
Barium	ug/l	--	mg/L	--	30	20	20	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	20	<10	30	30
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	42000	27000	25000	23000
Chromium	ug/l	--[14]	mg/L	14	3	3	50	3
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	0.5	0.3	0.5
Copper	ug/l	5	mg/L	0.005	2	2	2	2
Iron	ug/l	300	mg/L	0.3	**1080**	**1140**	**1170**	**1350**

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 26-Aug-2005	S2 15-Nov-2005	S2 01-Jun-2006	S2 06-Sep-2006
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	12000	8000	7000	6000
Manganese	ug/l	--	mg/L	--	50	120	60	80
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	5	<5
Potassium	ug/l	--	mg/L	--	3000	2000	1000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	8100	4500	7000
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	22000	14000	16000	17000
Strontium	ug/l	--	mg/L	--	135	80	95	95
Sulfur	ug/l	--	mg/L	--	4300	5300	3300	3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	20	20	20
Vanadium	ug/l	6	mg/L	0.006	3	3	1	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	10	30	20
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8100	7100	--	11110
Conductivity (Field)	uS/cm	--	uS/cm	--	550	80	300	495
pH (Field)	-	8.5	-	8.5	6.8	7.2	8	7.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	19.4	7.9	21	11

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 20-Nov-2006	S2 29-May-2007	S2 23-Aug-2007	S2 01-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	64000	108000	222000	54000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	50	80	80	70
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	1000	3000	1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	30000	16000	18000	32000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	29000	67000	17000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14700	10100	9900	14300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	70000	121000	215000	70000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	460	<100	<100	380
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	360	650	590
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**100**	**400**	**180**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	9000	10000	17000	9000
Total Dissolved Solids	ug/l	--	mg/L	--	118000	208000	437000	121000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**230**	40	20	**750**
Barium	ug/l	--	mg/L	--	20	30	50	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	10	50	130	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	18000	32000	58000	18000
Chromium	ug/l	--[14]	mg/L	14	<1	3	4	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	0.9	0.7	0.8
Copper	ug/l	5	mg/L	0.005	1	3	2	2
Iron	ug/l	300	mg/L	0.3	**1000**	**1880**	**920**	**1210**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 20-Nov-2006	S2 29-May-2007	S2 23-Aug-2007	S2 01-May-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	6000	10000	17000	6000
Manganese	ug/l	--	mg/L	--	90	140	380	100
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	<5	<5
Potassium	ug/l	--	mg/L	--	1000	2000	4000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	6500	8300	5200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	8000	18000	54000	10000
Strontium	ug/l	--	mg/L	--	57	112	239	70
Sulfur	ug/l	--	mg/L	--	3000	3300	5700	3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	**0.4**	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	30	30	30
Vanadium	ug/l	6	mg/L	0.006	2	4	6	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10710	7230	5970	10940
Conductivity (Field)	uS/cm	--	uS/cm	--	535	230	600	140
pH (Field)	-	8.5	-	8.5	7.3	8.2	7.6	6.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2	14.6	16.6	10.6

SURFACE WATER DATA

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S2 11-Aug-2008	S2 04-Nov-2008	S2 09-Apr-2009 C-9	S2 05-Aug-2009 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	124000	87000	54000	88000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	80	50	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	2000	<2000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	21000	48000	24000	58000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	38000	25000	18000(21)	28000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11300	15000	11400	23400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	122000	99000	61000	94000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	150	540	500	500
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<10	10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	810	550	700	1200
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	500	500
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**120**	**110**	**74**	**260**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	10000	13000	<5000(21)	<10000(21)
Total Dissolved Solids	ug/l	--	mg/L	--	248000	186000	110000	182000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--(9)	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	30	**120**	**150**	**130**
Barium	ug/l	--	mg/L	--	30	30	21	32
Beryllium	ug/l	11-1100(11)	mg/L	0.011-1.1(11)	<1	<1	<0.5	<0.5
Boron	ug/l	200(12)	mg/L	0.2(12)	50	20	10	20
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	34000	28000	16000	27000
Chromium	ug/l	--(14)	mg/L	14	4	2	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	0.5	0.6	0.7
Copper	ug/l	5	mg/L	0.005	2	2	2	3
Iron	ug/l	300	mg/L	0.3	**1320**	**1110**	**1100**	**2100**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 11-Aug-2008	S2 04-Nov-2008	S2 09-Apr-2009 C-9	S2 05-Aug-2009 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	0.6	0.7
Magnesium	ug/l	--	mg/L	--	9000	7000	4900	7200
Manganese	ug/l	--	mg/L	--	190	130	75	100
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	<5	2	2
Potassium	ug/l	--	mg/L	--	2000	2000	900	4400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	7100	7100	5600	8300
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	26000	15000	8900	17000
Strontium	ug/l	--	mg/L	--	140	77	57	96
Sulfur	ug/l	--	mg/L	--	3000	4000	2800	2400
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	20	61	61
Vanadium	ug/l	6	mg/L	0.006	5	2	4	4
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	8	6
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7000	8850	12460	9830
Conductivity (Field)	uS/cm	--	uS/cm	--	370	240	170	303
pH (Field)	-	8.5	-	8.5	6.7	8.4	**8.6**	7.81
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.9	6.6	2	17.8

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 15-Sep-2009 S-1	S2 03-Nov-2009 S-2	S2 01-Jun-2010 SW-5	S2 24-Jun-2010 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	84000	149000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	90	160	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<2000	4000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	44000	42000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	27000	40000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	17100	12800	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	98000	150000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	700	300	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<10	50	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	900	1200	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	700	300	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**55**	**77**	**180**	**210**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	<10000[21]	13000	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	180000	284000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	**160**	19	--
Barium	ug/l	--	mg/L	--	--	27	37	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<0.5	<0.5	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	20	60	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.1	<0.1	--
Calcium	ug/l	--	mg/L	--	--	27000	44000	--
Chromium	ug/l	--[14]	mg/L	14	--	<5	<5	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.6	0.7	--
Copper	ug/l	5	mg/L	0.005	--	3	4	--
Iron	ug/l	300	mg/L	0.3	**4500**	**1600**	**2000**	**2300**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 15-Sep-2009 S-1	S2 03-Nov-2009 S-2	S2 01-Jun-2010 SW-5	S2 24-Jun-2010 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.5	<0.5	--
Magnesium	ug/l	--	mg/L	--	--	8800	13000	--
Manganese	ug/l	--	mg/L	--	--	92	350	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	<1	<1	--
Nickel	ug/l	25	mg/L	0.025	--	2	2	--
Potassium	ug/l	--	mg/L	--	--	2000	4200	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	7600	6300	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	--	19000	39000	--
Strontium	ug/l	--	mg/L	--	--	91	160	--
Sulfur	ug/l	--	mg/L	--	--	3700	4200	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.05	<0.05	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	51	43	--
Vanadium	ug/l	6	mg/L	0.006	--	3	3	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	7	7	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	14880	11100	--
Conductivity (Field)	uS/cm	--	uS/cm	--	600	289	498	--
pH (Field)	-	8.5	-	8.5	7.5	6.85	6.77	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14.5	7.1	15.5	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 13-Aug-2010 L-3	S2 09-Sep-2010 S-2	S2 12-Nov-2010 C-5	S2 28-Apr-2011 A-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	174000	--	93000	55000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	--	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	--	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	25000	--	36000	40000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	49000	--	21000	16000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8800	--	11700	13500
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	150000	--	98000	58000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	--	300	400
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	20	--	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	700	--	700	1000
Nitrogen, Nitrate-Nitrite	ug/l	--		--	200	--	300	400
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**140**	**100**	**60**	**240**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	12000	--	8000	1000
Total Dissolved Solids	ug/l	--	mg/L	--	340000	--	178000	106000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	14	--	**89**	**150**
Barium	ug/l	--	mg/L	--	38	--	22	38
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.5	--	<0.5	<0.5
Boron	ug/l	200[12]	mg/L	0.2[12]	80	--	20	20
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	43000	--	25000	18000
Chromium	ug/l	--[14]	mg/L	14	<5	--	<5	8
Cobalt	ug/l	0.9	mg/L	0.0009	0.7	--	<0.5	**1.6**
Copper	ug/l	5	mg/L	0.005	3	--	2	5
Iron	ug/l	300	mg/L	0.3	**1900**	**1400**	**1500**	**3200**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 13-Aug-2010 L-3	S2 09-Sep-2010 S-2	S2 12-Nov-2010 C-5	S2 28-Apr-2011 A-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.5	--	<0.5	1.4
Magnesium	ug/l	--	mg/L	--	13000	--	8700	5700
Manganese	ug/l	--	mg/L	--	150	--	110	76
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	--	<1	<1
Nickel	ug/l	25	mg/L	0.025	2	--	2	5
Potassium	ug/l	--	mg/L	--	3100	--	1500	2400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	8500	--	7800	8100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	52000	--	17000	9000
Strontium	ug/l	--	mg/L	--	160	--	83	64
Sulfur	ug/l	--	mg/L	--	3800	--	3100	2200
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	--	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	65	--	30	180
Vanadium	ug/l	6	mg/L	0.006	4	--	1	**7**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	5	--	<5	20
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	-- [23]	--	9840	11120
Conductivity (Field)	uS/cm	--	uS/cm	--	505	--	291	661
pH (Field)	-	8.5	-	8.5	6.01	--	6.34	7.49
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15.5	--	1.5	15.4

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S2 27-May-2011 S-2	S2 24-Aug-2011 C-1	S2 07-Sep-2011 S-2	S2 07-Nov-2011 L-5
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	--	155000	--	121000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<50	--	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<2000	--	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	19000	--	34000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	42000	--	31000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	6700	--	7800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	140000	--	120000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	200	--	100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<10	--	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	500	--	500
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	200	--	100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**150**	**110**	**120**	**64**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	16000	--	11000
Total Dissolved Solids	ug/l	--	mg/L	--	--	254000	--	184000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--(9)	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	13	--	31
Barium	ug/l	--	mg/L	--	--	29	--	21
Beryllium	ug/l	11-1100 (11)	mg/L	0.011-1.1(11)	--	<0.5	--	<0.5
Boron	ug/l	200(12)	mg/L	0.2(12)	--	70	--	40
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	--	41000	--	31000
Chromium	ug/l	--(14)	mg/L	14	--	<5	--	<5
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.5	--	<0.5
Copper	ug/l	5	mg/L	0.005	--	2	--	<1
Iron	ug/l	300	mg/L	0.3	**2300**	**1100**	--	**800**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 27-May-2011 S-2	S2 24-Aug-2011 C-1	S2 07-Sep-2011 S-2	S2 07-Nov-2011 L-5
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.5	--	<0.5
Magnesium	ug/l	--	mg/L	--	--	12000	--	10000
Manganese	ug/l	--	mg/L	--	--	120	--	81
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<0.5	--	<0.5
Nickel	ug/l	25	mg/L	0.025	--	2	--	<1
Potassium	ug/l	--	mg/L	--	--	3400	--	1800
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	6000	--	6700
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	--	51000	--	29000
Strontium	ug/l	--	mg/L	--	--	150	--	110
Sulfur	ug/l	--	mg/L	--	--	5300	--	3900
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.05	--	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	27	--	11
Vanadium	ug/l	6	mg/L	0.006	--	3.0	--	0.9
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<5	--	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	**3**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	11740	--	**3150**
Conductivity (Field)	uS/cm	--	uS/cm	--	--	430	--	360
pH (Field)	-	8.5	-	8.5	--	7.69	--	7.17
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	16.1	--	5.8

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 05-Jun-2012 S-2	S2 29-Aug-2012 S-2	S2 05-Oct-2012 S2	S2 19-Nov-2012 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	60000	270000	--	170000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.1	9	--	0.2
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	97	--	66
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	--	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	51000	20000	--	17000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	21000	43000	--	41000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	22000	6900	--	4800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	70000	180000	--	150000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1100	260	--	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	--	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	710	370	--	570
Nitrogen, Nitrate-Nitrite	ug/l	--		--	1100	260	--	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**78**	**170**	**110**	**69**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<1000	21000	--	18000
Total Dissolved Solids	ug/l	--	mg/L	--	170000	356000	--	274000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**530**	21	--	5.9
Barium	ug/l	--	mg/L	--	17	35	--	26
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	<0.50	--	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	16	170	--	81
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	--	<0.10
Calcium	ug/l	--	mg/L	--	21000	54000	--	42000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<5.0	--	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	0.66	--	<0.50
Copper	ug/l	5	mg/L	0.005	3.1	3.2	--	1.6
Iron	ug/l	300	mg/L	0.3	**850**	**1100**	--	**550**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 05-Jun-2012 S-2	S2 29-Aug-2012 S-2	S2 05-Oct-2012 S2	S2 19-Nov-2012 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	--	<0.50
Magnesium	ug/l	--	mg/L	--	6000	16000	--	13000
Manganese	ug/l	--	mg/L	--	76	200	--	72
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	0.53	--	<0.50
Nickel	ug/l	25	mg/L	0.025	<1.0	2.4	--	<1.0
Potassium	ug/l	--	mg/L	--	1000	4200	--	2600
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5200	6200	--	6700
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	--	<0.10
Sodium	ug/l	--	mg/L	--	14000	81000	--	51000
Strontium	ug/l	--	mg/L	--	77	290	--	150
Sulfur	ug/l	--	mg/L	--	2500	6700	--	6900
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	--	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5.0	36	--	13
Vanadium	ug/l	6	mg/L	0.006	2.4	2.6	--	1.2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5.0	7.4	--	6.2
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	**12**	--	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9290	**5340**	--	10080
Conductivity (Field)	uS/cm	--	uS/cm	--	200	728	--	472
pH (Field)	-	8.5	-	8.5	7.06	7.54	--	7.57
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14.1	14.9	--	0.1

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 22-Apr-2013 S-2	S2 06-Sep-2013 S-2	S2 15-Oct-2013 S-2	S2 29-Nov-2013 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	50000	180000	--	110000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	0.39	0.08	--	1.05
Ammonia Nitrogen	ug/l	--	mg/L	--	80	53	--	95
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	--	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	40000	18000	--	33000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	35000	--	28000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12000	6900	--	11000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	63000	150000	--	110000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	350	140	--	190
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	--	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	810	550	--	580
Nitrogen, Nitrate-Nitrite	ug/l	--		--	350	140	--	190
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**53**	**120**	**300**	**85**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	5000	15000	--	12000
Total Dissolved Solids	ug/l	--	mg/L	--	134000	306000	--	196000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**190**	8.2	--	**81**
Barium	ug/l	--	mg/L	--	19	30	--	28
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	<0.50	--	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	14	81	--	24
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	--	<0.10
Calcium	ug/l	--	mg/L	--	18000	43000	--	34000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<5.0	--	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	0.64	--	0.58
Copper	ug/l	5	mg/L	0.005	1.9	2.4	--	2.0
Iron	ug/l	300	mg/L	0.3	**970**	**1300**	--	**1500**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 22-Apr-2013 S-2	S2 06-Sep-2013 S-2	S2 15-Oct-2013 S-2	S2 29-Nov-2013 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	--	<0.50
Magnesium	ug/l	--	mg/L	--	5700	13000	--	10000
Manganese	ug/l	--	mg/L	--	71	140	--	170
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	--	<0.50
Nickel	ug/l	25	mg/L	0.025	1.6	2.0	--	1.7
Potassium	ug/l	--	mg/L	--	970	2600	--	1900
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5000	6700	--	9000
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	--	<0.10
Sodium	ug/l	--	mg/L	--	10000	48000	--	25000
Strontium	ug/l	--	mg/L	--	65	190	--	110
Sulfur	ug/l	--	mg/L	--	3900	5200	--	6400
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	--	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	33	36	--	37
Vanadium	ug/l	6	mg/L	0.006	2.4	2.8	--	2.5
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	7.2	5.8	--	5.1
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	<1.0	--	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	13890	7090	--	12430
Conductivity (Field)	uS/cm	--	uS/cm	--	165	522	432	-- [23]
pH (Field)	-	8.5	-	8.5	7.69	6.89	6.94	8.13
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2.2	10.7	12.2	0.02

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 09-May-2014 [26] S-2	S2 27-Aug-2014 S-2	S2 23-Sep-2014 S-2	S2 24-Nov-2014 SW-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	86000	180000	--	50000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1.06	4.13	--	2.22
Ammonia Nitrogen	ug/l	--	mg/L	--	76	110	--	230
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	<2000	--	7000
Chemical Oxygen Demand	ug/l	--	mg/L	--	31000	19000	--	58000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	23000	41000	--	13000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11000	6500	--	14000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	92000	150000	--	51000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	280	220	--	1000
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<20	10	--	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	490	600	--	3000
Nitrogen, Nitrate-Nitrite	ug/l	--		--	280	230	--	1000
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**76**	**130**	**65**	**1000**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	11000	17000	--	1000
Total Dissolved Solids	ug/l	--	mg/L	--	166000	302000	--	178000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**140**	12	--	**99**
Barium	ug/l	--	mg/L	--	24	36	--	86
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	<0.50	--	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	17	65	--	13
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	--	0.12
Calcium	ug/l	--	mg/L	--	28000	41000	--	18000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<5.0	--	25
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	0.70	--	**4.8**
Copper	ug/l	5	mg/L	0.005	2.2	3.0	--	**14**
Iron	ug/l	300	mg/L	0.3	**1100**	**1700**	**1100**	**10000**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 09-May-2014 [26] S-2	S2 27-Aug-2014 S-2	S2 23-Sep-2014 S-2	S2 24-Nov-2014 SW-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	--	3.9
Magnesium	ug/l	--	mg/L	--	8300	12000	--	8300
Manganese	ug/l	--	mg/L	--	110	120	--	240
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	0.68	--	0.66
Nickel	ug/l	25	mg/L	0.025	<1.0	2.1	--	13
Potassium	ug/l	--	mg/L	--	1400	2600	--	8600
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5200	7100	--	18000
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	--	<0.10
Sodium	ug/l	--	mg/L	--	18000	46000	--	7700
Strontium	ug/l	--	mg/L	--	100	170	--	66
Sulfur	ug/l	--	mg/L	--	3900	6300	--	2400
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	--	0.087
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	28	63	--	700
Vanadium	ug/l	6	mg/L	0.006	2.3	3.6	--	**19**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	17	6.3	--	**44**
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	**1.5**	--	**11**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10910	7230	--	13000
Conductivity (Field)	uS/cm	--	uS/cm	--	314	550	--	174
pH (Field)	-	8.5	-	8.5	7.90	8.09	--	7.91
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.5	17.0	--	4.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 08-Dec-2014 S-2	S2 14-May-2015 [30] S-2	S2 18-Aug-2015 S-2	S2 30-Sep-2015 S2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	92000	190000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<0.83	<1.47	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<50	<50	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<2000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	35000	13000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	26000	67000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	15000	7100	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	94000	160000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<500	160	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<50	19	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	480	370	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	<500	170	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**34**	**73**	**170**	**180**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	2000	16000	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	176000	348000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	**97**	12	--
Barium	ug/l	--	mg/L	--	--	19	38	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<0.50	<0.50	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	17	82	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.10	<0.10	--
Calcium	ug/l	--	mg/L	--	--	23000	49000	--
Chromium	ug/l	--[14]	mg/L	14	--	<5.0	<5.0	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.50	0.69	--
Copper	ug/l	5	mg/L	0.005	--	1.3	2.9	--
Iron	ug/l	300	mg/L	0.3	**1300**	**1200**	**1700**	**940**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 08-Dec-2014 S-2	S2 14-May-2015 [30] S-2	S2 18-Aug-2015 S-2	S2 30-Sep-2015 S2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.50	0.51	--
Magnesium	ug/l	--	mg/L	--	--	6600	13000	--
Manganese	ug/l	--	mg/L	--	--	63	160	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	<0.50	<0.50	--
Nickel	ug/l	25	mg/L	0.025	--	1.0	2.6	--
Potassium	ug/l	--	mg/L	--	--	1300	3400	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5000	8200	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.10	**0.21**	--
Sodium	ug/l	--	mg/L	--	--	18000	60000	--
Strontium	ug/l	--	mg/L	--	--	74	190	--
Sulfur	ug/l	--	mg/L	--	--	2600	4500	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.050	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	18	47	--
Vanadium	ug/l	6	mg/L	0.006	--	1.7	3.6	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<5.0	<5.0	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1.0	<1.0	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	10990	10860	11060
Conductivity (Field)	uS/cm	--	uS/cm	--	--	381	409	370
pH (Field)	-	8.5	-	8.5	--	7.94	7.89	7.90
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	10.5	19.8	16.2

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 20-Nov-2015 S2	S2 15-Jun-2016 S2	S2 22-Aug-2016 S-2	S2 13-Oct-2016 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	95000	177	158	226
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.26	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	0.09	0.11	< 0.01
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	5	< 3	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	42000	< 5	< 5	13
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	28000	35.7	42.2	64.7
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	468	470	637
Dissolved Organic Carbon	ug/l	--	mg/L	--	14000	7.9	10	7.2
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	132	130	152
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	2010	0.4	0.2	0.3
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	14	< 0.1	< 0.1	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2100	0.72	0.8	1.68
Nitrogen, Nitrate-Nitrite	ug/l	--		--	2030	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**170**	**0.18**	**0.17**	**0.12**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	11000	13	23	15
Total Dissolved Solids	ug/l	--	mg/L	--	252000			
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	--	**1.97**	**0.46**	**0.31**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**100**	0.03	0.03	0.02
Barium	ug/l	--	mg/L	--	34	0.026	0.033	0.027
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	22	0.067	0.06	0.08
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	< 0.00002	0.00002	< 0.00002
Calcium	ug/l	--	mg/L	--	31000	38.2	36.7	41.8
Chromium	ug/l	--[14]	mg/L	14	<5.0	< 0.002	0.002	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	0.52	0.0003	0.0005	**0.0012**
Copper	ug/l	5	mg/L	0.005	2.6	0.0012	0.0028	0.002
Iron	ug/l	300	mg/L	0.3	**1500**	0.089	**0.894**	**0.658**

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 20-Nov-2015 S2	S2 15-Jun-2016 S2	S2 22-Aug-2016 S-2	S2 13-Oct-2016 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.54	< 0.00002	0.0005	0.00016
Magnesium	ug/l	--	mg/L	--	9400	11.1	9.35	11.6
Manganese	ug/l	--	mg/L	--	72	0.136	0.11	0.065
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	<0.50	0.0003	0.0004	0.0003
Nickel	ug/l	25	mg/L	0.025	2.1	0.0022	0.0019	0.0018
Potassium	ug/l	--	mg/L	--	3700	2.1	4	3.6
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	8100	4.89	5.69	5.17
Silver	ug/l	0.1	mg/L	0.0001	<0.10	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	20000	44.1	43.3	65.3
Strontium	ug/l	--	mg/L	--	110	0.171	0.146	0.19
Sulfur	ug/l	--	mg/L	--	3800	4.2	7.9	4.5
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	50	< 0.005	0.019	0.015
Vanadium	ug/l	6	mg/L	0.006	2.6	0.0016	0.0035	0.0012
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	6.3	< 0.005	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	< 0.001	**0.002**	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10200	7.99	8.45	7.74
Conductivity (Field)	uS/cm	--	uS/cm	--	651	460	468	629
pH (Field)	-	8.5	-	8.5	7.59	7.5	7.6	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.1	14	17.4	10.4

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 01-May-2017 S-2	S2 20-Sep-2017 S-2	S2 06-Nov-2017 S-2	S2 30-Apr-2018 S-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	53	159	54	69
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.24	0.05	0.03	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	5	< 3	< 3	<3
Chemical Oxygen Demand	ug/l	--	mg/L	--	59	27	57	76
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	10.2	27.9	9.6	20.7
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	210	444	173	242
Dissolved Organic Carbon	ug/l	--	mg/L	--	12	9.6	19.4	12.4
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	107	148	69	96
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.93	0.3	1.02	0.69
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.1	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1.81	0.5	0.9	0.6
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.61**	**0.12**	**0.17**	**0.12**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	6	9	7	7
Total Dissolved Solids	ug/l	--	mg/L	--	111	232	87	120
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	75	mg/L	0.075	**8.42**	**0.85**	**1.51**	**0.95**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.08**	0.03	**0.25**	**0.13**
Barium	ug/l	--	mg/L	--	0.096	0.044	0.031	0.034
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	0.016	0.068	0.01	0.012
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000257	< 0.000014	0.000081	0.000018
Calcium	ug/l	--	mg/L	--	26.3	43	18.5	25.5
Chromium	ug/l	--[14]	mg/L	14	0.017	0.002	0.004	0.003
Cobalt	ug/l	0.9	mg/L	0.0009	**0.0044**	0.0007	0.0008	0.0007
Copper	ug/l	5	mg/L	0.005	**0.0144**	0.0025	0.0072	0.0029
Iron	ug/l	300	mg/L	0.3	**12.4**	**1.72**	**1.92**	**1.27**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 01-May-2017 S-2	S2 20-Sep-2017 S-2	S2 06-Nov-2017 S-2	S2 30-Apr-2018 S-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00481	0.00039	0.00137	0.00079
Magnesium	ug/l	--	mg/L	--	10	12.1	5.73	7.88
Manganese	ug/l	--	mg/L	--	0.293	0.088	0.06	0.063
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0004	0.0003	0.0004	0.0004
Nickel	ug/l	25	mg/L	0.025	0.0118	0.0027	0.0044	0.0024
Potassium	ug/l	--	mg/L	--	4	2.8	2.4	1.9
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	16	7.72	6.43	4.89
Silver	ug/l	0.1	mg/L	0.0001	0.00003	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	9.2	41.1	9.8	14.1
Strontium	ug/l	--	mg/L	--	0.097	0.189	0.068	0.11
Sulfur	ug/l	--	mg/L	--	2.2	3.3	2.7	2.4
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.00009	< 0.00005	< 0.00005	0.00022
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.609	0.051	0.076	0.043
Vanadium	ug/l	6	mg/L	0.006	0.015	0.0028	0.0031	0.0035
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**0.143**	**0.094**	0.017	0.022
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9.96	6.96	6.96	7.06
Conductivity (Field)	uS/cm	--	uS/cm	--	157	391	158	190
pH (Field)	-	8.5	-	8.5	7.6	7.8	7.6	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.6	17	9.9	8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S2 20-Aug-2018 S-2	S2 05-Nov-2018 S-2
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	148	84
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3	4
Chemical Oxygen Demand	ug/l	--	mg/L	--	28	46
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	48.9	33.8
Color	color unit	--	color unit	--	--	--
Conductivity	umho/cm	--	umho/cm	--	457	327
Dissolved Organic Carbon	ug/l	--	mg/L	--	9	12
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	155	123
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.26	1.25
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.5	0.6
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.09**	**0.07**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	13	14
Total Dissolved Solids	ug/l	--	mg/L	--	242	164
Total Organic Carbon	ug/l	--	mg/L	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--
Metals						
Aluminum	ug/l	75	mg/L	0.075	**0.47**	**0.32**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.04**	**0.12**
Barium	ug/l	--	mg/L	--	0.03	0.036
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.001
Boron	ug/l	200[12]	mg/L	0.2[12]	0.042	0.012
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000015	0.000018
Calcium	ug/l	--	mg/L	--	39	32.9
Chromium	ug/l	--[14]	mg/L	14	<0.001	0.001
Cobalt	ug/l	0.9	mg/L	0.0009	0.0002	0.0003
Copper	ug/l	5	mg/L	0.005	0.0013	0.0015
Iron	ug/l	300	mg/L	0.3	**1.08**	**0.916**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	S2 20-Aug-2018 S-2	S2 05-Nov-2018 S-2
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	0.00003	0.0002
Magnesium	ug/l	--	mg/L	--	10.1	9.82
Manganese	ug/l	--	mg/L	--	0.091	0.052
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0004	0.0002
Nickel	ug/l	25	mg/L	0.025	0.0009	0.0012
Potassium	ug/l	--	mg/L	--	2.2	1.5
Selenium	ug/l	100	mg/L	0.1	--	--
Silicon	ug/l	--	mg/L	--	6.49	5.97
Silver	ug/l	0.1	mg/L	0.0001	< 0.0001	< 0.0001
Sodium	ug/l	--	mg/L	--	38.9	20.8
Strontium	ug/l	--	mg/L	--	0.153	0.138
Sulfur	ug/l	--	mg/L	--	4.3	4.4
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--
Titanium	ug/l	--	mg/L	--	0.029	0.015
Vanadium	ug/l	6	mg/L	0.006	0.0018	0.0014
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	0.028	0.016
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	0.002	< 0.002
Field Measurements						
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	7.57	12.1
Conductivity (Field)	uS/cm	--	uS/cm	--	367	259
pH (Field)	-	8.5	-	8.5	7.8	7.3
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	19	4.1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S3 30-Apr-2018 S-3	S3 20-Aug-2018 S-3	S3 05-Nov-2018 S-3
						Dry	Dry
General Chemistry							
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	70	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	0.01	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	0.12	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	51	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	2.3	--	--
Color	color unit	--	color unit	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	186	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	4.5	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	79	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.14	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<0.05	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.4	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--		--	--
Nitrogen, Organic	ug/l	--	mg/L	--		--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	22	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	103	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--
Metals							
Aluminum	ug/l	75	mg/L	0.075	0.07	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.03	--	--
Barium	ug/l	--	mg/L	--	0.018	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.002	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	0.037	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.000015	--	--
Calcium	ug/l	--	mg/L	--	27	--	--
Chromium	ug/l	--[14]	mg/L	14	<0.001	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.001	--	--
Copper	ug/l	5	mg/L	0.005	0.0004	--	--
Iron	ug/l	300	mg/L	0.3	**2.59**	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S3 30-Apr-2018 S-3	S3 20-Aug-2018 S-3	S3 05-Nov-2018 S-3
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00017	--	--
Magnesium	ug/l	--	mg/L	--	2.89	--	--
Manganese	ug/l	--	mg/L	--	0.248	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.00002	--	--
Molybdenum	ug/l	40	mg/L	0.04	<0.0001	--	--
Nickel	ug/l	25	mg/L	0.025	0.0014	--	--
Potassium	ug/l	--	mg/L	--	1.2	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--
Silicon	ug/l	--	mg/L	--	4.46	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.00002	--	--
Sodium	ug/l	--	mg/L	--	12.3	--	--
Strontium	ug/l	--	mg/L	--	0.091	--	--
Sulfur	ug/l	--	mg/L	--	6.8	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.00021	--	--
Tin	ug/l	--	mg/L	--	--	--	--
Titanium	ug/l	--	mg/L	--	<0.005	--	--
Vanadium	ug/l	6	mg/L	0.006	0.0005	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.008	--	--
Phenols							
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<0.001	--	--
Field Measurements							
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	4.05	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	174	--	--
pH (Field)	-	8.5	-	8.5	7.2	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9	--	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 29-Apr-1992	GS6 06-Sep-1992	GS6 28-Nov-1992	GS6 04-May-1993 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	44000	98000	76000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	<100	<100	30	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	2000	2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	23000	43000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	1000	4000	6000	--
Color	color unit	--	color unit	--	144	50	191	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	57000	95000	75000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	<100	310	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	550	580	390	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	550	580	360	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**100**	**120**	<30	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	12000	9000	9000	--
Total Dissolved Solids	ug/l	--	mg/L	--	90000	130000	130000	--
Total Organic Carbon	ug/l	--	mg/L	--	14700	8500	16000	--
Total Suspended Solids	ug/l	--	mg/L	--	5000	58000	18000	--
Turbidity	ntu	-- [9]	ntu	-- [9]	3.8	13	4.2	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**670**	**840**	**510**	--
Barium	ug/l	--	mg/L	--	30	40	20	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	<10	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	20	<10	<10	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.2	<0.15	**2.11**	--
Calcium	ug/l	--	mg/L	--	13000	25000	20000	--
Chromium	ug/l	-- [14]	mg/L	14	<10	20	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	<10	<10	--	--
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	--
Iron	ug/l	300	mg/L	0.3	**800**	**1690**	**1000**	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 29-Apr-1992	GS6 06-Sep-1992	GS6 28-Nov-1992	GS6 04-May-1993 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	5	--
Magnesium	ug/l	--	mg/L	--	6000	8000	6000	--
Manganese	ug/l	--	mg/L	--	100	190	100	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	--
Potassium	ug/l	--	mg/L	--	<1000	2000	2000	--
Selenium	ug/l	100	mg/L	0.1	<1	<1	<1	--
Silicon	ug/l	--	mg/L	--	3500	6700	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	3000	6000	5000	--
Strontium	ug/l	--	mg/L	--	<10	90	70	--
Sulfur	ug/l	--	mg/L	--	5000	3000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<50	<50	--	--
Tin	ug/l	--	mg/L	--	<50	<50	--	--
Titanium	ug/l	--	mg/L	--	30	<10	--	--
Vanadium	ug/l	6	mg/L	0.006	**10**	<10	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10600	9400	12300	--
Conductivity (Field)	uS/cm	--	uS/cm	--	150	230	150	--
pH (Field)	-	8.5	-	8.5	7.4	7.2	7	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	12	7.5	2.5	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 29-Aug-1993 [4]	GS6 11-Nov-1993 [4]	GS6 04-Jun-1994	GS6 07-Sep-1994
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	--	72000	119000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	280	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	3000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	48000	18000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	--	9000	10000
Color	color unit	--	color unit	--	--	--	60	26
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	13800	7000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	--	83000	154000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	**1500**	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	100000	170000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	>100	13
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	60	40
Barium	ug/l	--	mg/L	--	--	--	20	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	<10	<10
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	<10	10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	**0.21**	<0.15
Calcium	ug/l	--	mg/L	--	--	--	20000	45000
Chromium	ug/l	-- [14]	mg/L	14	--	--	70	<10
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	**2**	<0.4
Copper	ug/l	5	mg/L	0.005	--	--	<5	<5
Iron	ug/l	300	mg/L	0.3	--	--	**720**	**1220**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 29-Aug-1993 [4]	GS6 11-Nov-1993 [4]	GS6 04-Jun-1994	GS6 07-Sep-1994
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	4	<2
Magnesium	ug/l	--	mg/L	--	--	--	8000	10000
Manganese	ug/l	--	mg/L	--	--	--	710	110
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	--	--	<10	<10
Nickel	ug/l	25	mg/L	0.025	--	--	<10	<10
Potassium	ug/l	--	mg/L	--	--	--	2000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	5800	4100
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	**0.4**
Sodium	ug/l	--	mg/L	--	--	--	6000	4000
Strontium	ug/l	--	mg/L	--	--	--	70	128
Sulfur	ug/l	--	mg/L	--	--	--	<3000	7000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<5	<5
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	<10	20
Vanadium	ug/l	6	mg/L	0.006	--	--	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	**2300**	9100
Conductivity (Field)	uS/cm	--	uS/cm	--	--	--	160	240
pH (Field)	-	8.5	-	8.5	--	--	6.1	7.5
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	--	17.5	12

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 24-Nov-1994 [4]	GS6 28-May-1995	GS6 11-Sep-1995	GS6 07-Nov-1995
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	88000	125000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	60	40	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<1000	3000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	26000	18000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	7000	10000	5000
Color	color unit	--	color unit	--	--	72	14	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	11200	8100	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	103000	131000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	**40**	**70**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	128000	188000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	**410**	**580**	--
Barium	ug/l	--	mg/L	--	--	20	30	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<10	<10	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	20	20	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.15	<0.15	--
Calcium	ug/l	--	mg/L	--	--	28000	36000	--
Chromium	ug/l	-- [14]	mg/L	14	--	<10	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	0.4	--
Copper	ug/l	5	mg/L	0.005	--	<5	<5	--
Iron	ug/l	300	mg/L	0.3	--	**1330**	**1220**	**1110**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 24-Nov-1994 [4]	GS6 28-May-1995	GS6 11-Sep-1995	GS6 07-Nov-1995
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	<2	--
Magnesium	ug/l	--	mg/L	--	--	8000	10000	--
Manganese	ug/l	--	mg/L	--	--	90	80	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	<10	--
Nickel	ug/l	25	mg/L	0.025	--	<10	<10	--
Potassium	ug/l	--	mg/L	--	--	1000	2000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5000	5400	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	--	6000	10000	--
Strontium	ug/l	--	mg/L	--	--	93	152	--
Sulfur	ug/l	--	mg/L	--	--	5000	8000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<10	<5	--
Tin	ug/l	--	mg/L	--	--	<50	--	--
Titanium	ug/l	--	mg/L	--	--	<10	30	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	<7	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	10200	-- [23]	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	195	290	190
pH (Field)	-	8.5	-	8.5	--	7	7.7	8.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	15	13	6

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 17-Jul-1996	GS6 22-Nov-1996	GS6 10-Jun-1997	GS6 09-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	61000	80000	106000	159000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	140	20	120
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3000	2000	5000	1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	27000	26000	29000	21000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	4000	5000	10000	11000
Color	color unit	--	color unit	--	40	45	29	22
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10200	10000	10500	9000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	72000	92000	108000	157000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	30	**40**	**60**	**130**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	104000	128000	160000	208000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**350**	**180**	**160**	**240**
Barium	ug/l	--	mg/L	--	20	30	20	40
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	10	<10	<10
Boron	ug/l	200 [12]	mg/L	0.2 [12]	10	20	<10	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	19000	22000	30000	43000
Chromium	ug/l	-- [14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	**1.9**	<0.4	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	**12**	<5
Iron	ug/l	300	mg/L	0.3	**780**	**1380**	**690**	**870**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 17-Jul-1996	GS6 22-Nov-1996	GS6 10-Jun-1997	GS6 09-Sep-1997
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	6000	9000	8000	12000
Manganese	ug/l	--	mg/L	--	30	170	90	180
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	**0.5**	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<30	<30	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	1000	1000	2000	4000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4300	6000	4100	5200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	5000	4000	9000	14000
Strontium	ug/l	--	mg/L	--	80	82	109	144
Sulfur	ug/l	--	mg/L	--	6000	5000	5000	5000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	--	<50	--	<50
Titanium	ug/l	--	mg/L	--	20	10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**2**	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8200	12600	9800	6600
Conductivity (Field)	uS/cm	--	uS/cm	--	90	120	250	280
pH (Field)	-	8.5	-	8.5	8.2	7	8.2	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	22	1.5	20	16

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 06-Apr-1998	GS6 09-Jun-1998	GS6 25-Jun-1998	GS6 17-Jul-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	38000	79000	74000	70000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	40	90	60	570
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4000	1000	<1000	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	31000	10000	56000	48000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	3000	6000	4000	4000
Color	color unit	--	color unit	--	81	53	105	109
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12000	8800	19000	17000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	49000	91000	82000	80000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	120	130	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	230
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	520	730	970	930
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**70**	**70**	**60**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	12000	19000	7000	7000
Total Dissolved Solids	ug/l	--	mg/L	--	76000	120000	104000	116000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**230**	**80**	**220**	**300**
Barium	ug/l	--	mg/L	--	10	10	<10	<10
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	<10	<10	<10
Boron	ug/l	200 [12]	mg/L	0.2 [12]	20	<10	<10	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	13000	25000	23000	22000
Chromium	ug/l	-- [14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	**1.6**	0.4	0.8	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	**310**	**910**	**1580**	**2070**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 06-Apr-1998	GS6 09-Jun-1998	GS6 25-Jun-1998	GS6 17-Jul-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	4000	7000	6000	6000
Manganese	ug/l	--	mg/L	--	50	40	60	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	1000	2000	2000	<1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	2600	3000	5100	5100
Silver	ug/l	0.1	mg/L	0.0001	**0.3**	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	1000	5000	4000	4000
Strontium	ug/l	--	mg/L	--	47	86	83	57
Sulfur	ug/l	--	mg/L	--	5000	5000	3000	3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	**5**
Tin	ug/l	--	mg/L	--	<50	<50	<50	<50
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9500	7200	6700	7200
Conductivity (Field)	uS/cm	--	uS/cm	--	100	190	130	210
pH (Field)	-	8.5	-	8.5	7.04	7.55	7.48	6.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	10	24.5	24	22

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 20-Aug-1998	GS6 26-Sep-1998	GS6 20-Oct-1998	GS6 20-Dec-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	128000	102000	78000	84000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	40	--	70	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	--	1000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	24000	18000	14000	60000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	12000	7000	5000	5000
Color	color unit	--	color unit	--	28	--	114	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8200	9000	16000	7800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	129000	115000	95000	95000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	540	--	740	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**90**	**60**	**80**	**80**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	9000	--	9000	--
Total Dissolved Solids	ug/l	--	mg/L	--	184000	144000	116000	132000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**330**	**150**	**180**	40
Barium	ug/l	--	mg/L	--	30	--	<10	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	<10	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	--	<10	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	--	<0.15	--
Calcium	ug/l	--	mg/L	--	35000	--	25000	--
Chromium	ug/l	-- [14]	mg/L	14	10	--	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	--	<0.4	--
Copper	ug/l	5	mg/L	0.005	<5	--	<5	--
Iron	ug/l	300	mg/L	0.3	**1070**	**970**	**1360**	**950**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 20-Aug-1998	GS6 26-Sep-1998	GS6 20-Oct-1998	GS6 20-Dec-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	<2	--
Magnesium	ug/l	--	mg/L	--	10000	--	8000	--
Manganese	ug/l	--	mg/L	--	80	50	50	200
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	<10	--
Nickel	ug/l	25	mg/L	0.025	<10	--	<10	--
Potassium	ug/l	--	mg/L	--	3000	--	3000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5000	--	6500	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	--
Sodium	ug/l	--	mg/L	--	10000	7000	4000	5000
Strontium	ug/l	--	mg/L	--	123	93	70	81
Sulfur	ug/l	--	mg/L	--	4000	--	4000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	<5	--
Tin	ug/l	--	mg/L	--	<50	--	<50	--
Titanium	ug/l	--	mg/L	--	<10	--	40	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	**10**	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9300	9300	10200	13400
Conductivity (Field)	uS/cm	--	uS/cm	--	220	190	260	90
pH (Field)	-	8.5	-	8.5	6.9	6.65	7.56	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16	11	7.5	-3

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 23-Apr-1999	GS6 26-May-1999	GS6 25-Jun-1999	GS6 29-Jul-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	66000	81000	164000	118000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<20	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	26000	29000	39000	20000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	6000	7000	50000	53000
Color	color unit	--	color unit	--	--	54	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10000	11400	11900	11700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	72000	80000	179000	130000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	**50**	**90**	**110**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	24000	104000	292000	252000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**340**	**320**	**80**	50
Barium	ug/l	--	mg/L	--	--	20	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<10	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	<10	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.15	--	--
Calcium	ug/l	--	mg/L	--	--	22000	--	--
Chromium	ug/l	-- [14]	mg/L	14	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	--	--
Copper	ug/l	5	mg/L	0.005	--	<5	--	--
Iron	ug/l	300	mg/L	0.3	**370**	**370**	**310**	**1610**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 23-Apr-1999	GS6 26-May-1999	GS6 25-Jun-1999	GS6 29-Jul-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	--	--
Magnesium	ug/l	--	mg/L	--	--	6000	--	--
Manganese	ug/l	--	mg/L	--	60	40	240	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	1000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	4500	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	4000	4000	39000	35000
Strontium	ug/l	--	mg/L	--	63	75	162	123
Sulfur	ug/l	--	mg/L	--	--	3000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<5	--	--
Tin	ug/l	--	mg/L	--	--	<50	--	--
Titanium	ug/l	--	mg/L	--	--	<10	--	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10200	10500	7000	8700
Conductivity (Field)	uS/cm	--	uS/cm	--	110	130	480	440
pH (Field)	-	8.5	-	8.5	7.7	7.45	7.15	7.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	13.2	12	18	20.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 31-Aug-1999	GS6 30-Sep-1999	GS6 27-Oct-1999 [3]	GS6 29-Nov-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	242000	73000	--	50000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	260	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	10000	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	25000	38000	--	35000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	26000	9000	--	20000
Color	color unit	--	color unit	--	18	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11400	12400	--	11300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	222000	94000	--	74000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**450**	**70**	--	**830**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	292000	140000	--	120000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	<30	<30	--	**530**
Barium	ug/l	--	mg/L	--	100	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	30	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	--	--	--
Calcium	ug/l	--	mg/L	--	56000	--	--	18000
Chromium	ug/l	-- [14]	mg/L	14	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.6	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	--	--	--
Iron	ug/l	300	mg/L	0.3	**4760**	**810**	--	**5660**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 31-Aug-1999	GS6 30-Sep-1999	GS6 27-Oct-1999 [3]	GS6 29-Nov-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	2	--	--	--
Magnesium	ug/l	--	mg/L	--	20000	--	--	7000
Manganese	ug/l	--	mg/L	--	480	20	--	240
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	6000	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	14300	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	29000	7000	--	12000
Strontium	ug/l	--	mg/L	--	187	87	--	75
Sulfur	ug/l	--	mg/L	--	3000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	--	--
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	20	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**5**	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**2100**	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	245	210	--	196
pH (Field)	-	8.5	-	8.5	5.6	7.32	--	7.03
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14	14	--	2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 21-Dec-1999 [25]	GS6 28-Apr-2000	GS6 01-Jun-2000	GS6 29-Jun-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	75000	76000	60000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	70	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	3000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	26000	30000	73000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	18000	7000	4000
Color	color unit	--	color unit	--	--	--	90	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	9900	13300	18100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	76000	77000	68000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	**50**	30	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	128000	104000	116000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	<50	**160**	**590**
Barium	ug/l	--	mg/L	--	--	--	90	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	<2	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	<10	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	<0.1	--
Calcium	ug/l	--	mg/L	--	--	19000	21000	19000
Chromium	ug/l	-- [14]	mg/L	14	--	--	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	<0.4	--
Copper	ug/l	5	mg/L	0.005	--	--	<10	--
Iron	ug/l	300	mg/L	0.3	--	**440**	**1120**	**1480**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 21-Dec-1999 [25]	GS6 28-Apr-2000	GS6 01-Jun-2000	GS6 29-Jun-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	<2	--
Magnesium	ug/l	--	mg/L	--	--	7000	6000	5000
Manganese	ug/l	--	mg/L	--	--	50	60	80
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	<10	--
Nickel	ug/l	25	mg/L	0.025	--	--	<10	--
Potassium	ug/l	--	mg/L	--	--	--	1000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	4840	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	--
Sodium	ug/l	--	mg/L	--	--	12000	5000	4000
Strontium	ug/l	--	mg/L	--	--	66	68	64
Sulfur	ug/l	--	mg/L	--	--	--	<1000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<2	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	<10	--
Vanadium	ug/l	6	mg/L	0.006	--	--	<2	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	**2800**	8400
Conductivity (Field)	uS/cm	--	uS/cm	--	--	208	300	170
pH (Field)	-	8.5	-	8.5	--	6.65	6.59	6.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	--	12	20

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 30-Jul-2000	GS6 18-Aug-2000	GS6 27-Sep-2000	GS6 30-Oct-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	115000	103000	77000	91000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	80	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	28000	31000	30000	26000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	10000	7000	6000	7000
Color	color unit	--	color unit	--	--	53	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9400	12500	11300	8900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	115000	96000	89000	100000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**120**	**40**	**80**	30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	208000	176000	160000	148000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**340**	**170**	**220**	<50
Barium	ug/l	--	mg/L	--	--	20	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<2	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	<10	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.1	--	--
Calcium	ug/l	--	mg/L	--	33000	27000	24000	25000
Chromium	ug/l	-- [14]	mg/L	14	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.3	--	--
Copper	ug/l	5	mg/L	0.005	--	1	--	--
Iron	ug/l	300	mg/L	0.3	**900**	**1210**	**1600**	**820**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 30-Jul-2000	GS6 18-Aug-2000	GS6 27-Sep-2000	GS6 30-Oct-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	--	--
Magnesium	ug/l	--	mg/L	--	8000	7000	7000	9000
Manganese	ug/l	--	mg/L	--	70	80	90	70
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	1000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	6280	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	10000	6000	5000	6000
Strontium	ug/l	--	mg/L	--	106	83	78	80
Sulfur	ug/l	--	mg/L	--	--	3000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<1	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	<10	--	--
Vanadium	ug/l	6	mg/L	0.006	--	1	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	7260	10440	11590
Conductivity (Field)	uS/cm	--	uS/cm	--	253	198	185	183
pH (Field)	-	8.5	-	8.5	6.43	7.6	7.12	7.42
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	23	15.9	11.8	6.9

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Dec-2000	GS6 21-Dec-2000	GS6 30-May-2001	GS6 10-Aug-2001 [3]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	64000	80000	76000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	80	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	<1000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	34000	19000	19000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	6000	7000	10000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	13400	8400	11300	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	75000	81000	86000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	790	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	700	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	**60**	**60**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	11000	--
Total Dissolved Solids	ug/l	--	mg/L	--	84000	144000	200000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**230**	**120**	<50	--
Barium	ug/l	--	mg/L	--	--	--	20	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	<2	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	<10	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	<0.1	--
Calcium	ug/l	--	mg/L	--	20000	21000	23000	--
Chromium	ug/l	-- [14]	mg/L	14	--	--	<1	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	<0.2	--
Copper	ug/l	5	mg/L	0.005	--	--	<1	--
Iron	ug/l	300	mg/L	0.3	**1150**	**490**	**1160**	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Dec-2000	GS6 21-Dec-2000	GS6 30-May-2001	GS6 10-Aug-2001 [3]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	<1	--
Magnesium	ug/l	--	mg/L	--	6000	7000	7000	--
Manganese	ug/l	--	mg/L	--	140	170	90	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	<10	--
Nickel	ug/l	25	mg/L	0.025	--	--	<10	--
Potassium	ug/l	--	mg/L	--	--	--	1000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	5060	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	--
Sodium	ug/l	--	mg/L	--	6000	5000	6000	--
Strontium	ug/l	--	mg/L	--	67	68	83	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<1	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	30	--
Vanadium	ug/l	6	mg/L	0.006	--	--	1	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12800	--	10050	--
Conductivity (Field)	uS/cm	--	uS/cm	--	220	2	481	--
pH (Field)	-	8.5	-	8.5	6.8	8.2	6.92	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1	0	10	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 05-Apr-2002	GS6 06-Aug-2002 [28]	GS6 01-Nov-2002	GS6 12-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	44000	--	119000	81000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	70	--	30	540
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	--	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	29000	--	15000	28000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	7000	--	32000	17000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9600	--	6200	11900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	63000	--	145000	99000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	820	--	<100	610
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	--	330	1660
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**110**	--	**50**	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	20000	--	33000	35000
Total Dissolved Solids	ug/l	--	mg/L	--	101000	--	253000	164000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**140**	--	<10	**100**
Barium	ug/l	--	mg/L	--	20	--	30	30
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<2	--	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<50	--	<50	<50
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	17000	--	40000	28000
Chromium	ug/l	-- [14]	mg/L	14	<1	--	<1	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.3	--	0.2	0.5
Copper	ug/l	5	mg/L	0.005	1	--	2	2
Iron	ug/l	300	mg/L	0.3	220	--	150	**650**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 05-Apr-2002	GS6 06-Aug-2002 (28)	GS6 01-Nov-2002	GS6 12-May-2003
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	<1	--	<1	<1
Magnesium	ug/l	--	mg/L	--	5000	--	11000	7000
Manganese	ug/l	--	mg/L	--	60	--	22	90
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<10	--	<5	<5
Nickel	ug/l	25	mg/L	0.025	<10	--	<5	<5
Potassium	ug/l	--	mg/L	--	<1000	--	2000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4000	--	3800	4400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	5000	--	22000	10000
Strontium	ug/l	--	mg/L	--	52	--	120	86
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	<1	--	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	<10	20
Vanadium	ug/l	6	mg/L	0.006	1	--	<1	3
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	<10	--	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	12610	--	-- (23)	8640
Conductivity (Field)	uS/cm	--	uS/cm	--	120	--	170	180
pH (Field)	-	8.5	-	8.5	6.8	--	6.7	7.8
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	3	--	12	13

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 26-Aug-2003	GS6 19-Nov-2003	GS6 26-May-2004	GS6 28-Aug-2004
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	186000	61000	71000	109000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	40	30	140	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	<1000	<500	1400
Chemical Oxygen Demand	ug/l	--	mg/L	--	15000	36000	23000	61000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	60000	11000	6700	14500
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6900	13300	13400	11700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	195000	75000	86000	130800
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	100	430	<200	<200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<200	<200
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	520	560	590	700
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**50**	**200**	**46**	**184**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	22000	31000	7200	12500
Total Dissolved Solids	ug/l	--	mg/L	--	354000	124000	152000	156000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	459	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	<10	**170**	**183**	**4410**
Barium	ug/l	--	mg/L	--	40	30	21	68
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<50	<10	7	16
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	0.2
Calcium	ug/l	--	mg/L	--	55000	20000	23700	35300
Chromium	ug/l	-- [14]	mg/L	14	8	3	<5	10
Cobalt	ug/l	0.9	mg/L	0.0009	0.2	0.9	0.4	**2.6**
Copper	ug/l	5	mg/L	0.005	1	3	3.9	**7.8**
Iron	ug/l	300	mg/L	0.3	**620**	**1530**	**1770**	**4620**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 26-Aug-2003	GS6 19-Nov-2003	GS6 26-May-2004	GS6 28-Aug-2004
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	0.6	1.9
Magnesium	ug/l	--	mg/L	--	14000	6000	6520	10300
Manganese	ug/l	--	mg/L	--	130	80	66	534
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	<5	<1	6
Potassium	ug/l	--	mg/L	--	4000	1000	1200	3600
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	5800	5290	11100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	35000	7000	5300	11200
Strontium	ug/l	--	mg/L	--	167	71	70	127
Sulfur	ug/l	--	mg/L	--	--	--	3000	4400
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	40	19	218
Vanadium	ug/l	6	mg/L	0.006	3	3	2.5	**9.9**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	10	23	24
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	**3**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6210	7610	8550	6510
Conductivity (Field)	uS/cm	--	uS/cm	--	170	200	138	210
pH (Field)	-	8.5	-	8.5	7.6	7.4	7.83	7.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14	2	15.6	17

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 25-Nov-2004	GS6 26-May-2005	GS6 26-Aug-2005	GS6 15-Nov-2005
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	67000	82000	221000	77000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<30	70	1250	60
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	2000	5000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	52000	23000	25000	38000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13400	12000	28000	14000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	15600	11100	10800	14400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	90400	89000	215000	98000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	500	<100	120	350
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<200	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	630	510	2430	620
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**49**	**60**	**120**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	14000	10000	12000	13000
Total Dissolved Solids	ug/l	--	mg/L	--	170000	138000	344000	142000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**1440**	**370**	**130**	**180**
Barium	ug/l	--	mg/L	--	32	20	70	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<5	20	40	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	24200	24000	58000	26000
Chromium	ug/l	-- [14]	mg/L	14	<5	2	6	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.9	0.4	**1.3**	0.5
Copper	ug/l	5	mg/L	0.005	2.9	3	5	2
Iron	ug/l	300	mg/L	0.3	**2190**	**920**	**1870**	**1050**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 25-Nov-2004	GS6 26-May-2005	GS6 26-Aug-2005	GS6 15-Nov-2005
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.9	<1	1	<1
Magnesium	ug/l	--	mg/L	--	7270	7000	17000	8000
Manganese	ug/l	--	mg/L	--	121	60	760	140
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	2	<5	<5	<5
Potassium	ug/l	--	mg/L	--	1500	1000	6000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	7290	4900	9900	7200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	7800	8000	26000	8000
Strontium	ug/l	--	mg/L	--	74	81	190	69
Sulfur	ug/l	--	mg/L	--	5300	3300	4000	4300
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	84	20	20	20
Vanadium	ug/l	6	mg/L	0.006	4.3	3	**8**	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	9	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	**2**	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9090	9440	8900	7200
Conductivity (Field)	uS/cm	--	uS/cm	--	595	212	529	220
pH (Field)	-	8.5	-	8.5	7.1	7.2	7.2	7.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1	8	27	7.9

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2006	GS6 06-Sep-2006	GS6 20-Nov-2006	GS6 29-May-2007
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	78000	75000	61000	85000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	40	40	30
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	<1000	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	37000	42000	40000	22000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	11000	19000	11000	7000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14200	17200	15500	10800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	82000	91000	75000	94000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	170	400	420	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	530	830	520	490
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	30	**500**	**60**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	9000	10000	9000	9000
Total Dissolved Solids	ug/l	--	mg/L	--	123000	151000	113000	134000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**220**	**130**	**210**	70
Barium	ug/l	--	mg/L	--	20	30	20	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	20	20	10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	23000	25000	20000	26000
Chromium	ug/l	-- [14]	mg/L	14	2	3	2	<1
Cobalt	ug/l	0.9	mg/L	0.0009	<0.2	0.6	0.6	0.2
Copper	ug/l	5	mg/L	0.005	1	3	1	1
Iron	ug/l	300	mg/L	0.3	**1240**	**1520**	**1340**	**1150**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2006	GS6 06-Sep-2006	GS6 20-Nov-2006	GS6 29-May-2007
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	6000	7000	6000	7000
Manganese	ug/l	--	mg/L	--	30	80	110	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	<5	<5
Potassium	ug/l	--	mg/L	--	1000	1000	1000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4600	7100	6300	5500
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	6000	11000	7000	7000
Strontium	ug/l	--	mg/L	--	75	96	57	72
Sulfur	ug/l	--	mg/L	--	3000	3300	3000	3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	<0.1	0.2
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	30	20	10
Vanadium	ug/l	6	mg/L	0.006	2	4	2	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	10880	10920	9920
Conductivity (Field)	uS/cm	--	uS/cm	--	180	490	395	160
pH (Field)	-	8.5	-	8.5	7.7	7.3	7.4	8.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	20	9	2	18.9

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 23-Aug-2007	GS6 25-Nov-2007	GS6 01-May-2008	GS6 11-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	220000	96000	44000	114000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	110	30	50	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	--	1000	1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	17000	--	37000	22000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	16000	12000	6000	14000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8100	9200	16200	12500
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	215000	109000	56000	113000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	380	320
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	760	--	680	710
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**180**	**80**	20	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	14000	--	9000	8000
Total Dissolved Solids	ug/l	--	mg/L	--	318000	170000	83000	183000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**100**	--	**310**	70
Barium	ug/l	--	mg/L	--	30	--	20	30
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	--	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	40	<10	20	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	58000	29000	16000	32000
Chromium	ug/l	-- [14]	mg/L	14	3	--	2	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	--	0.6	0.3
Copper	ug/l	5	mg/L	0.005	<1	--	2	2
Iron	ug/l	300	mg/L	0.3	**1500**	**860**	**1060**	**1260**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 23-Aug-2007	GS6 25-Nov-2007	GS6 01-May-2008	GS6 11-Aug-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	--	<1	<1
Magnesium	ug/l	--	mg/L	--	17000	9000	4000	8000
Manganese	ug/l	--	mg/L	--	650	70	80	110
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	--	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	--	<5	<5
Potassium	ug/l	--	mg/L	--	3000	--	<1000	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	11100	--	4900	7100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	21000	9000	3000	11000
Strontium	ug/l	--	mg/L	--	156	--	49	97
Sulfur	ug/l	--	mg/L	--	4700	--	3000	3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	--	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	30	<10
Vanadium	ug/l	6	mg/L	0.006	3	--	3	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**5200**	8770	10500	7400
Conductivity (Field)	uS/cm	--	uS/cm	--	625	200	95	220
pH (Field)	-	8.5	-	8.5	7.4	7.9	7.9	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17	0.3	11.7	18.4

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 04-Nov-2008	GS6 09-Apr-2009 C-1	GS6 05-Aug-2009 GS-6	GS6 03-Nov-2009 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	75000	48000	70000	75000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	20	<50	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	<2000	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	40000	27000	42000	40000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	9000 [21]	10000	<10000 [21]
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	16700	11200	20700	15400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	82000	54000	76000	87000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	390	400	300	500
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<10	10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	400	500	900	700
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	400	300	500
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	**71**	**52**	21
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	11000	<5000 [21]	<5000 [21]	<10000 [21]
Total Dissolved Solids	ug/l	--	mg/L	--	140000	82000	107000	125000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**200**	**170**	**130**	**150**
Barium	ug/l	--	mg/L	--	20	19	19	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<0.5	<0.5	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	20	10	<10	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	23000	15000	21000	24000
Chromium	ug/l	-- [14]	mg/L	14	2	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	0.6	<0.5	<0.5
Copper	ug/l	5	mg/L	0.005	2	1	**10**	1
Iron	ug/l	300	mg/L	0.3	**1080**	**900**	**1500**	**1100**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 04-Nov-2008	GS6 09-Apr-2009 C-1	GS6 05-Aug-2009 GS-6	GS6 03-Nov-2009 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	0.5	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	6000	4400	5300	7500
Manganese	ug/l	--	mg/L	--	120	70	48	94
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	1	<1	1
Potassium	ug/l	--	mg/L	--	<1000	800	1000	1200
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	7000	5000	5800	6500
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	8000	4400	5200	7600
Strontium	ug/l	--	mg/L	--	62	49	65	70
Sulfur	ug/l	--	mg/L	--	4000	2700	2000	3100
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	40	23	12
Vanadium	ug/l	6	mg/L	0.006	2	4	2	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	7	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9700	11700	9880	11370
Conductivity (Field)	uS/cm	--	uS/cm	--	190	120	176	191
pH (Field)	-	8.5	-	8.5	7.8	7.9	7.99	7.23
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8.3	6.9	20.4	7.8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2010 SW-3	GS6 13-Aug-2010 L-2	GS6 12-Nov-2010 C-6	GS6 28-Apr-2011 A-7
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	109000	120000	86000	48000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	70	<50	<50	70
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	31000	33000	35000	43000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	20000	8000	6000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10600	9600	10800	14000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	120000	95000	54000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	100	100	200	400
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	20	10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	700	800	600	1000
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	200	200	200	400
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**76**	**81**	26	**290**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	15000	6000	8000	<1000
Total Dissolved Solids	ug/l	--	mg/L	--	176000	196000	128000	68000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	35	30	**92**	**190**
Barium	ug/l	--	mg/L	--	32	32	18	45
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	30	20	<10	10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	39000	37000	24000	18000
Chromium	ug/l	-- [14]	mg/L	14	<5	<5	<5	11
Cobalt	ug/l	0.9	mg/L	0.0009	<0.5	<0.5	<0.5	**2.5**
Copper	ug/l	5	mg/L	0.005	2	2	1	**7**
Iron	ug/l	300	mg/L	0.3	**1500**	**1800**	**1100**	**4600**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2010 SW-3	GS6 13-Aug-2010 L-2	GS6 12-Nov-2010 C-6	GS6 28-Apr-2011 A-7
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	<0.5	<0.5	2.2
Magnesium	ug/l	--	mg/L	--	11000	9800	7800	5800
Manganese	ug/l	--	mg/L	--	170	100	110	110
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	2	1	<1	6
Potassium	ug/l	--	mg/L	--	2800	2100	1000	1500
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	8000	6900	8700
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	8500	16000	6500	4400
Strontium	ug/l	--	mg/L	--	120	110	69	55
Sulfur	ug/l	--	mg/L	--	4700	2300	2800	2100
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	30	41	8	270
Vanadium	ug/l	6	mg/L	0.006	2	3	<1	**10**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	7	<5	<5	19
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9370	8310	8960	9070
Conductivity (Field)	uS/cm	--	uS/cm	--	303	291	209	133
pH (Field)	-	8.5	-	8.5	8.03	8.12	8.16	7.89
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14.1	19.8	4.7	15

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-May-2011 SW-6	GS6 24-Aug-2011 C-5	GS6 07-Sep-2011 S-6	GS6 07-Nov-2011 L-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	104000	--	100000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<50	--	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<2000	--	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	21000	--	32000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	14000	--	12000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	6600	--	7100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	120000	--	110000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<100	--	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<10	--	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	400	--	400
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	<100	--	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**64**	29	**50**	20
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	10000	--	10000
Total Dissolved Solids	ug/l	--	mg/L	--	--	358000	--	150000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	18	--	24
Barium	ug/l	--	mg/L	--	--	21	--	19
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<0.5	--	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	20	--	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	--	34000	--	31000
Chromium	ug/l	-- [14]	mg/L	14	--	<5	--	<5
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.5	--	<0.5
Copper	ug/l	5	mg/L	0.005	--	1	--	<1
Iron	ug/l	300	mg/L	0.3	**1500**	**400**	--	**700**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-May-2011 SW-6	GS6 24-Aug-2011 C-5	GS6 07-Sep-2011 S-6	GS6 07-Nov-2011 L-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.5	--	<0.5
Magnesium	ug/l	--	mg/L	--	--	8400	--	9800
Manganese	ug/l	--	mg/L	--	--	29	--	77
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<0.5	--	<0.5
Nickel	ug/l	25	mg/L	0.025	--	<1	--	<1
Potassium	ug/l	--	mg/L	--	--	1600	--	1400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5700	--	7100
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	--	9900	--	9000
Strontium	ug/l	--	mg/L	--	--	94	--	95
Sulfur	ug/l	--	mg/L	--	--	3500	--	3500
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.05	--	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	6	--	7
Vanadium	ug/l	6	mg/L	0.006	--	1.7	--	0.6
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<5	--	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	**2**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	7460	--	11260
Conductivity (Field)	uS/cm	--	uS/cm	--	--	244	--	291
pH (Field)	-	8.5	-	8.5	--	7.8	--	7.48
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	19	--	6.7

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 05-Jun-2012 GS-6	GS6 29-Aug-2012 [3] GS6	GS6 19-Nov-2012 GS-6	GS6 22-Apr-2013 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	53000	--	120000	48000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.5	--	0.6	0.91
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	--	61	70
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	--	3000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	60000	--	15000	32000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	9000	--	14000	6000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	22000	--	5400	13000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	65000	--	140000	61000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	620	--	<100	350
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	--	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	750	--	450	630
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	620	--	<100	350
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**33**	--	11	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<1000	--	19000	4000
Total Dissolved Solids	ug/l	--	mg/L	--	120000	--	164000	120000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**240**	--	8.4	**180**
Barium	ug/l	--	mg/L	--	21	--	21	28
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	--	<0.50	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	26	--	18	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	--	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	19000	--	37000	18000
Chromium	ug/l	-- [14]	mg/L	14	<5.0	--	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	0.68	--	<0.50	**1.3**
Copper	ug/l	5	mg/L	0.005	2.8	--	1.6	3.3
Iron	ug/l	300	mg/L	0.3	**1700**	--	270	**2300**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 05-Jun-2012 GS-6	GS6 29-Aug-2012 [3] GS6	GS6 19-Nov-2012 GS-6	GS6 22-Apr-2013 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.78	--	<0.50	1.2
Magnesium	ug/l	--	mg/L	--	5500	--	12000	5300
Manganese	ug/l	--	mg/L	--	88	--	47	120
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	--	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	1.9	--	<1.0	2.6
Potassium	ug/l	--	mg/L	--	830	--	1800	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5900	--	6700	5800
Silver	ug/l	0.1	mg/L	0.0001	<0.10	--	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	6500	--	11000	4300
Strontium	ug/l	--	mg/L	--	64	--	110	60
Sulfur	ug/l	--	mg/L	--	2300	--	6200	3400
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	--	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	41	--	<5.0	130
Vanadium	ug/l	6	mg/L	0.006	3.8	--	0.73	5.2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	5.1	--	11	13
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	--	<1.0	**1.7**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	849000	--	10300	**2530**
Conductivity (Field)	uS/cm	--	uS/cm	--	157	--	285	301
pH (Field)	-	8.5	-	8.5	7.5	--	8.05	7.89
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.8	--	0.3	8.8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 06-Sep-2013 GS-6	GS6 15-Oct-2013 GS-6	GS6 29-Nov-2013 GS-6	GS6 09-May-2014 [26] GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	110000	--	94000	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.03	--	0.82	0.54
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	--	60	110
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	--	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	19000	--	31000	28000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	--	10000	10000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7000	--	9200	11000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	--	100000	87000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	160	290
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	--	<10	<20
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	690	--	610	470
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	<100	--	160	290
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**36**	**<100**	**42**	21
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	10000	--	11000	10000
Total Dissolved Solids	ug/l	--	mg/L	--	164000	--	146000	144000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	12	--	**86**	**110**
Barium	ug/l	--	mg/L	--	19	--	25	18
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	--	<0.50	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	19	--	18	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	--	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	33000	--	32000	24000
Chromium	ug/l	-- [14]	mg/L	14	<5.0	--	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	--	0.55	<0.50
Copper	ug/l	5	mg/L	0.005	2.5	--	1.2	**5.3**
Iron	ug/l	300	mg/L	0.3	**660**	--	**1200**	**790**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 06-Sep-2013 GS-6	GS6 15-Oct-2013 GS-6	GS6 29-Nov-2013 GS-6	GS6 09-May-2014 [26] GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	--	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	8700	--	9700	7100
Manganese	ug/l	--	mg/L	--	40	--	200	77
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	--	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	1	--	1.4	<1.0
Potassium	ug/l	--	mg/L	--	1600	--	1400	1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5100	--	8700	4600
Silver	ug/l	0.1	mg/L	0.0001	<0.10	--	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	10000	--	8100	6900
Strontium	ug/l	--	mg/L	--	100	--	92	77
Sulfur	ug/l	--	mg/L	--	3400	--	3900	3100
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	--	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	12	--	19	15
Vanadium	ug/l	6	mg/L	0.006	0.92	--	1.9	1.9
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	7.2	--	5.3	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	**1.4**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**3670**	--	-- [23]	9670
Conductivity (Field)	uS/cm	--	uS/cm	--	263	246	258	246
pH (Field)	-	8.5	-	8.5	6.34	6.92	8.22	7.32
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16	13	0.1	13.2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-Aug-2014 GS-6	GS6 23-Sep-2014 GS-6	GS6 24-Nov-2014 GS-6	GS6 08-Dec-2014 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	120000	--	60000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1.75	--	0.57	--
Ammonia Nitrogen	ug/l	--	mg/L	--	73	--	99	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	--	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	16000	--	37000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	20000	--	11000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6800	--	12000	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	--	69000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	140	--	750	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	--	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	470	--	1100	--
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	140	--	750	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**31**	25	**370**	**31**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	11000	--	5000	--
Total Dissolved Solids	ug/l	--	mg/L	--	180000	--	108000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	21	--	**120**	--
Barium	ug/l	--	mg/L	--	25	--	38	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	--	<0.50	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	--	14	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	--	<0.10	--
Calcium	ug/l	--	mg/L	--	35000	--	19000	--
Chromium	ug/l	-- [14]	mg/L	14	<5.0	--	7	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	--	**1.7**	--
Copper	ug/l	5	mg/L	0.005	1.4	--	4.7	--
Iron	ug/l	300	mg/L	0.3	**630**	**1100**	**3200**	**1200**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-Aug-2014 GS-6	GS6 23-Sep-2014 GS-6	GS6 24-Nov-2014 GS-6	GS6 08-Dec-2014 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	--	1.4	--
Magnesium	ug/l	--	mg/L	--	9200	--	6400	--
Manganese	ug/l	--	mg/L	--	44	--	170	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<0.50	--	<0.50	--
Nickel	ug/l	25	mg/L	0.025	<1.0	--	4	--
Potassium	ug/l	--	mg/L	--	1900	--	2700	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6400	--	9000	--
Silver	ug/l	0.1	mg/L	0.0001	<0.10	--	<0.10	--
Sodium	ug/l	--	mg/L	--	14000	--	6100	--
Strontium	ug/l	--	mg/L	--	110	--	60	--
Sulfur	ug/l	--	mg/L	--	3300	--	2600	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	--	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	11	--	170	--
Vanadium	ug/l	6	mg/L	0.006	1.4	--	**6.7**	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5.0	--	14	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	--	**5.1**	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7010	--	11700	--
Conductivity (Field)	uS/cm	--	uS/cm	--	209	--	1.65	--
pH (Field)	-	8.5	-	8.5	7.89	--	7.63	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17	--	6.1	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 14-May-2015 GS-6	GS6 18-Aug-2015 GS-11	GS6 20-Nov-2015 6	GS6 15-Jun-2016 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	78000	130000	86000	123
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.29	<0.61	<0.28	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	<50	<50	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	<2000	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	35000	15000	35000	21
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	11000	27000	17000	13.9
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	298
Dissolved Organic Carbon	ug/l	--	mg/L	--	15000	7000	12000	8
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	85000	130000	120000	110
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	3020	0.3
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	12	<10	12	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	480	350	1600	0.65
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	100	<100	3030	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**33**	**48**	**36**	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<1000	10000	9500	8
Total Dissolved Solids	ug/l	--	mg/L	--	136000	218000	214000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	0.22
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**100**	15	**110**	**0.13**
Barium	ug/l	--	mg/L	--	16	25	24	0.023
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	<0.50	<0.50	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	17	24	11	0.012
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	<0.10	<0.10	< 0.00002
Calcium	ug/l	--	mg/L	--	22000	38000	30000	34.7
Chromium	ug/l	-- [14]	mg/L	14	<5.0	<5.0	<5.0	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	<0.50	<0.50	0.0002
Copper	ug/l	5	mg/L	0.005	1	1.3	1.3	0.0008
Iron	ug/l	300	mg/L	0.3	**1200**	**630**	**930**	**0.757**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 14-May-2015 GS-6	GS6 18-Aug-2015 GS-11	GS6 20-Nov-2015 6	GS6 15-Jun-2016 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	<0.50	0.00016
Magnesium	ug/l	--	mg/L	--	6000	9500	8800	9.47
Manganese	ug/l	--	mg/L	--	67	39	86	0.085
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	<0.50	0.0003
Nickel	ug/l	25	mg/L	0.025	1.2	<1.0	1	0.0019
Potassium	ug/l	--	mg/L	--	1000	2000	1200	1.5
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5100	7000	6600	5.61
Silver	ug/l	0.1	mg/L	0.0001	<0.10	**0.15**	<0.10	< 0.00002
Sodium	ug/l	--	mg/L	--	6800	17000	11000	11.9
Strontium	ug/l	--	mg/L	--	63	110	92	0.118
Sulfur	ug/l	--	mg/L	--	2300	2400	3300	2.7
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	<0.050	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	15	10	16	0.012
Vanadium	ug/l	6	mg/L	0.006	1.8	1.4	1.4	0.0014
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5.0	<5.0	<5.0	< 0.005
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	<1.0	<1.0	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9920	9810	9080	6.86
Conductivity (Field)	uS/cm	--	uS/cm	--	301	364	712	288
pH (Field)	-	8.5	-	8.5	7.41	7.5	7.63	7.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	12.6	19.9	5.9	19

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 22-Aug-2016 GS-6	GS6 13-Oct-2016 GS-6	GS6 01-May-2017 GS-6	GS6 20-Sep-2017 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	92	147	49	117
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	0.02
Ammonia Nitrogen	ug/l	--	mg/L	--	0.12	< 0.01	< 0.01	< 0.01
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	< 3	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	23	20	49	26
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	10.6	37	6.8	10.6
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	264	423	171	288
Dissolved Organic Carbon	ug/l	--	mg/L	--	9.1	8.5	12.9	10.2
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	112	103	87	128
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.2	< 0.1	1.69	0.2
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	0.2	< 0.1	< 0.05	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.5	0.41	0.78	0.5
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.04**	**0.03**	**0.19**	**0.06**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	20	11	7	6
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	84.4	149
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	0.1	0.04	**2.41**	**0.2**
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	0.03	0.01	**0.18**	**0.04**
Barium	ug/l	--	mg/L	--	0.024	0.02	0.046	0.034
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	0.011	< 0.005	0.008	0.014
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	< 0.00002	< 0.00002	0.000148	0.000037
Calcium	ug/l	--	mg/L	--	31.7	29	22.3	35.7
Chromium	ug/l	-- [14]	mg/L	14	< 0.002	< 0.002	0.007	0.001
Cobalt	ug/l	0.9	mg/L	0.0009	< 0.0001	< 0.0001	**0.0017**	0.0003
Copper	ug/l	5	mg/L	0.005	0.0013	0.0023	**0.0076**	**0.0085**
Iron	ug/l	300	mg/L	0.3	0.258	0.217	**3.76**	**0.908**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 22-Aug-2016 GS-6	GS6 13-Oct-2016 GS-6	GS6 01-May-2017 GS-6	GS6 20-Sep-2017 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00007	< 0.00002	0.00221	0.00079
Magnesium	ug/l	--	mg/L	--	7.9	7.48	7.5	9.64
Manganese	ug/l	--	mg/L	--	0.022	0.04	0.119	0.062
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0004	0.0002	0.0004	0.0003
Nickel	ug/l	25	mg/L	0.025	0.0009	0.0008	0.0055	0.0044
Potassium	ug/l	--	mg/L	--	1.3	2.4	1.2	2.1
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4.85	4.19	7.23	5.99
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	9	17.1	5.8	11.2
Strontium	ug/l	--	mg/L	--	0.107	0.09	0.089	0.141
Sulfur	ug/l	--	mg/L	--	6.9	2.5	2.6	2.3
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	< 0.005	0.17	0.011
Vanadium	ug/l	6	mg/L	0.006	0.0012	0.0002	**0.0064**	0.0012
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	< 0.005	< 0.005	**0.045**	0.03
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8.03	5.08	9.78	6.87
Conductivity (Field)	uS/cm	--	uS/cm	--	270	416	153	247
pH (Field)	-	8.5	-	8.5	7.4	7.8	7.2	7.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17.3	11.2	7.3	18.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 6-Nov-2017 GS-6	GS6 30-Apr-2018 GS-6	GS6 20-Aug-2018 GS-6	GS6 05-Nov-2018 GS-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	53	56	101	72
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	< 0.01	0.04	0.04	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	< 3	5
Chemical Oxygen Demand	ug/l	--	mg/L	--	60	90	25	47
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	8.1	8.2	18.5	13.6
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	163	176	270	235
Dissolved Organic Carbon	ug/l	--	mg/L	--	22.8	13.2	7.7	
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	75	83	115	105
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1.87	0.95	0.29	1.03
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.8	0.5	0.4	0.6
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.05**	**0.05**	0.04	0.04
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	7	6	9	12
Total Dissolved Solids	ug/l	--	mg/L	--	81	85	139	117
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	**0.58**	**0.41**	0.12	0.42
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**0.27**	**0.15**	**0.03**	**0.15**
Barium	ug/l	--	mg/L	--	0.024	0.028	0.022	0.034
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.002	< 0.0001
Boron	ug/l	200 [12]	mg/L	0.2 [12]	0.008	0.009	0.009	0.006
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	0.000068	0.000015	0.000059	0.000033
Calcium	ug/l	--	mg/L	--	19.3	22.6	29.5	27.7
Chromium	ug/l	-- [14]	mg/L	14	0.001	<0.001	<0.0001	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	0.0004	0.0002	0.0002	0.0004
Copper	ug/l	5	mg/L	0.005	0.0049	0.0011	0.0009	0.0043
Iron	ug/l	300	mg/L	0.3	**1.06**	**0.793**	0.503	1.13

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 6-Nov-2017 GS-6	GS6 30-Apr-2018 GS-6	GS6 20-Aug-2018 GS-6	GS6 05-Nov-2018 GS-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00101	0.00022	0.00013	0.00061
Magnesium	ug/l	--	mg/L	--	5.66	6.5	7.35	8.62
Manganese	ug/l	--	mg/L	--	0.066	0.055	0.024	0.077
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0003	<0.0001	0.0003	0.0003
Nickel	ug/l	25	mg/L	0.025	0.0027	0.001	0.00008	0.0017
Potassium	ug/l	--	mg/L	--	1.2	0.8	1.4	1
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5.15	3.78	6.29	5.95
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.0002	< 0.00002
Sodium	ug/l	--	mg/L	--	6.6	6.5	12.1	9.6
Strontium	ug/l	--	mg/L	--	0.065	0.094	0.096	0.118
Sulfur	ug/l	--	mg/L	--	2.7	2.1	3.2	3.6
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.024	0.011	0.006	0.022
Vanadium	ug/l	6	mg/L	0.006	0.0015	0.0021	0.0018	0.0015
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.016	**0.042**	0.022	0.011
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	0.002	0.002
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.6	6.99	6.85	11.1
Conductivity (Field)	uS/cm	--	uS/cm	--	160	140	224	191
pH (Field)	-	8.5	-	8.5	7.5	7.6	7.9	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	10	9	19.2	4.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S8 30-Apr-2018 S-8	S8 20-Aug-2018 S-8	S8 05-Nov-2018 S-8
General Chemistry							
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	74	153	90
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.01	<0.01	<0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.04	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3	<3	4
Chemical Oxygen Demand	ug/l	--	mg/L	--	82	25	41
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	18.1	49.1	33.1
Color	color unit	--	color unit	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	242	473	346
Dissolved Organic Carbon	ug/l	--	mg/L	--	12.4	12.9	11.2
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	100	159	136
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.75	0.31	1.6
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<0.05	<0.05	<0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.7	0.5	0.6
Nitrogen, Nitrate-Nitrite	ug/l	--	mg/L	--		--	--
Nitrogen, Organic	ug/l	--	mg/L	--		--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.16**	0.09	0.07
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	7	13	14
Total Dissolved Solids	ug/l	--	mg/L	--	121	250	173
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--
Metals							
Aluminum	ug/l	75	mg/L	0.075	1.4	0.52	0.11
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.12	0.02	0.39
Barium	ug/l	--	mg/L	--	0.038	0.29	0.039
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<0.002	<0.002	<0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	0.011	0.046	0.011
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000033	0.000024	0.000032
Calcium	ug/l	--	mg/L	--	26	41	35.5
Chromium	ug/l	--[14]	mg/L	14	0.005	0.002	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	0.0009	0.0005	0.0003
Copper	ug/l	5	mg/L	0.005	0.004	0.0024	0.0071
Iron	ug/l	300	mg/L	0.3	**1.8**	1.01	0.93

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	S8 30-Apr-2018 S-8	S8 20-Aug-2018 S-8	S8 05-Nov-2018 S-8
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00101	0.00032	0.00049
Magnesium	ug/l	--	mg/L	--	8.54	11.1	11.4
Manganese	ug/l	--	mg/L	--	0.064	0.048	0.037
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.00002	<0.00002	<0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0002	0.0004	0.0004
Nickel	ug/l	25	mg/L	0.025	0.0035	0.0018	0.0021
Potassium	ug/l	--	mg/L	--	2.2	2.5	1.8
Selenium	ug/l	100	mg/L	0.1	--	--	--
Silicon	ug/l	--	mg/L	--	5.48	6.74	6.12
Silver	ug/l	0.1	mg/L	0.0001	<0.00002	<0.0001	<0.0001
Sodium	ug/l	--	mg/L	--	12.6	39.9	21.9
Strontium	ug/l	--	mg/L	--	0.112	0.165	0.161
Sulfur	ug/l	--	mg/L	--	2.4	4.7	4.5
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.00023	<0.00005	<0.00005
Tin	ug/l	--	mg/L	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.083	0.031	0.02
Vanadium	ug/l	6	mg/L	0.006	0.0046	0.0034	0.0016
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.02	0.015	0.015
Phenols							
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<0.001	<0.002	<0.002
Field Measurements							
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.99	7.26	11.5
Conductivity (Field)	uS/cm	--	uS/cm	--	197	377	269
pH (Field)	-	8.5	-	8.5	7.9	8.1	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	7.1	18.8	4

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 30-Apr-1992	GS11 08-Sep-1992	GS11 28-Nov-1992	GS11 04-May-1993
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	82000	116000	80000	98000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<100	130	<10	<10
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	1000	<1000	1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	8000	15000	8000	13000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	31000	34000	30000	38000
Color	color unit	--	color unit	--	13	13	7	17
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	125000	134000	113000	111000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	190	320	130	310
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	190	190	130	310
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	<30	**70**	<30	<30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	49000	12000	47000	34000
Total Dissolved Solids	ug/l	--	mg/L	--	210000	220000	220000	230000
Total Organic Carbon	ug/l	--	mg/L	--	5200	5400	4000	7100
Total Suspended Solids	ug/l	--	mg/L	--	32000	26000	4000	2000
Turbidity	ntu	--[9]	ntu	--[9]	19	13	1.6	0.6
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**470**	**110**	70	**160**
Barium	ug/l	--	mg/L	--	40	40	20	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	--	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	90	110	60	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.2	<0.15	0.15	<0.15
Calcium	ug/l	--	mg/L	--	22000	29000	24000	23000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<10	<10	--	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	5
Iron	ug/l	300	mg/L	0.3	**470**	**3250**	180	300

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 30-Apr-1992	GS11 08-Sep-1992	GS11 28-Nov-1992	GS11 04-May-1993
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	17000	15000	13000	13000
Manganese	ug/l	--	mg/L	--	<10	620	30	<10
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	3000	2000	1000	2000
Selenium	ug/l	100	mg/L	0.1	<1	<1	<1	<1
Silicon	ug/l	--	mg/L	--	4200	5900	--	800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	30000	28000	20000	23000
Strontium	ug/l	--	mg/L	--	50	140	120	<7
Sulfur	ug/l	--	mg/L	--	13000	20000	--	9000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<50	<50	--	<5
Tin	ug/l	--	mg/L	--	<50	<50	--	<50
Titanium	ug/l	--	mg/L	--	40	<10	--	<10
Vanadium	ug/l	6	mg/L	0.006	**20**	<10	--	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12000	9600	13200	8600
Conductivity (Field)	uS/cm	--	uS/cm	--	490	385	260	375
pH (Field)	-	8.5	-	8.5	6.8	7.3	7.1	6.5
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6	12	0	17

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 29-Aug-1993	GS11 11-Nov-1993	GS11 04-Jun-1994	GS11 07-Sep-1994
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	139000	77000	110000	132000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	<10	<10	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	21000	10000	13000	15000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	47000	30000	46000	50000
Color	color unit	--	color unit	--	16	8	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	5900	6700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	159000	107000	143000	156000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	360	230	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	360	230	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	20	10	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	8000	29000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	270000	190000	190000	250000
Total Organic Carbon	ug/l	--	mg/L	--	8800	4700	--	--
Total Suspended Solids	ug/l	--	mg/L	--	3000	2000	--	--
Turbidity	ntu	--[9]	ntu	--[9]	2.9	1.4	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	<30	--	--
Barium	ug/l	--	mg/L	--	<10	20	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	130	90	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	--	--
Calcium	ug/l	--	mg/L	--	34000	23000	--	--
Chromium	ug/l	--[14]	mg/L	14	<10	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	<0.4	--	--
Copper	ug/l	5	mg/L	0.005	<5	<5	--	--
Iron	ug/l	300	mg/L	0.3	**1380**	140	--	--

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS11 29-Aug-1993	GS11 11-Nov-1993	GS11 04-Jun-1994	GS11 07-Sep-1994
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	<2	<2	--	--
Magnesium	ug/l	--	mg/L	--	18000	12000	--	--
Manganese	ug/l	--	mg/L	--	380	30	--	--
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	<0.2	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	--	--
Potassium	ug/l	--	mg/L	--	2000	1000	--	--
Selenium	ug/l	100	mg/L	0.1	<1	<1	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	--
Sodium	ug/l	--	mg/L	--	30000	20000	23000	17000
Strontium	ug/l	--	mg/L	--	260	<7	140	160
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	<5	<5	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	<7	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	<10	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	<1	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	9300	12100	8100	8100
Conductivity (Field)	uS/cm	--	uS/cm	--	410	290	330	400
pH (Field)	-	8.5	-	8.5	7.5	--	6.5	7.1
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	19	3	14	15

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 24-Nov-1994	GS11 28-May-1995	GS11 11-Sep-1995	GS11 07-Nov-1995
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	124000	118000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	10000	18000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	41000	57000	61000	50000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	6200	7600	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	173000	182000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	--	<10
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	284000	296000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	50
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	300	280	**5540**	140

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 24-Nov-1994	GS11 28-May-1995	GS11 11-Sep-1995	GS11 07-Nov-1995
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	--	90	1560	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	27000	31000	--
Strontium	ug/l	--	mg/L	--	--	186	214	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9600	7800	-- [23]	--
Conductivity (Field)	uS/cm	--	uS/cm	--	350	450	550	485
pH (Field)	-	8.5	-	8.5	7	7	7.5	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.5	13	15	8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 17-Jul-1996	GS11 22-Nov-1996	GS11 10-Jun-1997	GS11 09-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	108000	92000	165000	155000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	<20	<20	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<3000	3000	2000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	24000	18000	27000	26000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	42000	43000	50000	82000
Color	color unit	--	color unit	--	16	3	9	8
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8200	5200	8800	9400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	109000	136000	174000	220000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	10	**50**	20	**190**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	208000	208000	296000	380000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	**450**	**160**	**320**
Barium	ug/l	--	mg/L	--	20	30	40	60
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	100	50	60	90
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	24000	28000	40000	50000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	**1.6**	0.9	**2.3**
Copper	ug/l	5	mg/L	0.005	<5	<5	**25**	<5
Iron	ug/l	300	mg/L	0.3	**320**	**2470**	**1550**	**3190**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 17-Jul-1996	GS11 22-Nov-1996	GS11 10-Jun-1997	GS11 09-Sep-1997
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	12000	16000	18000	23000
Manganese	ug/l	--	mg/L	--	110	80	350	420
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	**0.6**	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	2000	2000	3000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4000	5400	5000	5300
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	22000	22000	29000	43000
Strontium	ug/l	--	mg/L	--	145	132	193	221
Sulfur	ug/l	--	mg/L	--	<3000	<3000	3000	10000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	--	<50	--	<50
Titanium	ug/l	--	mg/L	--	<10	60	<10	20
Vanadium	ug/l	6	mg/L	0.006	**16**	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	10	10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**3**	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8400	11600	9000	8000
Conductivity (Field)	uS/cm	--	uS/cm	--	260	210	310	500
pH (Field)	-	8.5	-	8.5	8.4	6.8	7.3	6.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16	2	9	14

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 09-Jun-1998	GS11 20-Aug-1998	GS11 26-May-1999	GS11 31-Aug-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	185000	176000	222000	205000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	**80**
Ammonia Nitrogen	ug/l	--	mg/L	--	20	<20	<20	150
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	<1000	3000	5000
Chemical Oxygen Demand	ug/l	--	mg/L	--	18000	27000	34000	33000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	83000	70000	66000	65000
Color	color unit	--	color unit	--	14	10	11	8
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9500	9600	12900	10800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	214000	203000	215000	220000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	540	600	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**50**	30	20	**240**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	16000	6000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	372000	336000	340000	368000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	**150**	<30	<30
Barium	ug/l	--	mg/L	--	30	40	40	70
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<10	<10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	70	90	110	130
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	51000	45000	48000	50000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	**1.2**	**4.3**	**1**	**3.1**
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	**970**	150	**470**	**3280**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 09-Jun-1998	GS11 20-Aug-1998	GS11 26-May-1999	GS11 31-Aug-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	24000	22000	23000	23000
Manganese	ug/l	--	mg/L	--	240	210	240	840
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	3000	3000	3000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3500	4100	4400	5500
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	39000	40000	43000	45000
Strontium	ug/l	--	mg/L	--	254	219	239	230
Sulfur	ug/l	--	mg/L	--	6000	3000	<3000	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	<50	<50	<50	<50
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	20	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7500	7800	8400	**600**
Conductivity (Field)	uS/cm	--	uS/cm	--	400	530	470	415
pH (Field)	-	8.5	-	8.5	7.15	7.4	7.35	**9.5**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16	16	12	18

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 01-Jun-2000	GS11 18-Aug-2000	GS11 30-May-2001	GS11 10-Aug-2001 [3]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	193000	203000	202000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	30	20	<20	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	<1000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	20000	26000	24000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	41000	46000	53000	--
Color	color unit	--	color unit	--	12	18	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9100	11100	11900	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	180000	191000	191000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	480	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	20	**70**	<10	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	6000	--
Total Dissolved Solids	ug/l	--	mg/L	--	296000	188000	348000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**160**	**80**	<50	--
Barium	ug/l	--	mg/L	--	100	30	30	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<2	<2	<2	--
Boron	ug/l	200[12]	mg/L	0.2[12]	110	140	100	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	--
Calcium	ug/l	--	mg/L	--	39000	42000	40000	--
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<1	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.7	**1.1**	<0.2	--
Copper	ug/l	5	mg/L	0.005	<10	<1	<1	--
Iron	ug/l	300	mg/L	0.3	**1000**	**860**	**470**	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 01-Jun-2000	GS11 18-Aug-2000	GS11 30-May-2001	GS11 10-Aug-2001 [3]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<1	<1	--
Magnesium	ug/l	--	mg/L	--	20000	21000	22000	--
Manganese	ug/l	--	mg/L	--	110	390	90	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<10	10	<10	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	--
Potassium	ug/l	--	mg/L	--	2000	2000	3000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3440	4260	3670	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	34000	40000	36000	--
Strontium	ug/l	--	mg/L	--	187	187	210	--
Sulfur	ug/l	--	mg/L	--	<1000	1000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<2	<1	<1	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	--
Vanadium	ug/l	6	mg/L	0.006	<2	<1	<1	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7400	6110	7940	--
Conductivity (Field)	uS/cm	--	uS/cm	--	240	488	-- [22]	--
pH (Field)	-	8.5	-	8.5	6.89	7.5	7.15	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11	17.2	11.3	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 05-Apr-2002	GS11 06-Aug-2002	GS11 01-Nov-2002	GS11 12-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	141000	237000	166000	258000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<20	<20	<20	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	2000	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	16000	24000	24000	39000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	64000	111000	151000	116000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7000	11400	11900	12600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	191000	299000	358000	312000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	450	1250	630	1010
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	20	**110**	10	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	46000	35000	140000	48000
Total Dissolved Solids	ug/l	--	mg/L	--	366000	546000	670000	595000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**190**	<10	<10	<10
Barium	ug/l	--	mg/L	--	30	60	50	50
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<2	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	60	170	100	150
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	45000	67000	79000	72000
Chromium	ug/l	--[14]	mg/L	14	2	3	2	5
Cobalt	ug/l	0.9	mg/L	0.0009	0.3	**1.4**	**2**	0.8
Copper	ug/l	5	mg/L	0.005	2	5	5	3
Iron	ug/l	300	mg/L	0.3	200	**760**	180	**570**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 05-Apr-2002	GS11 06-Aug-2002	GS11 01-Nov-2002	GS11 12-May-2003
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	19000	32000	39000	32000
Manganese	ug/l	--	mg/L	--	20	74	81	73
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<10	6	<5	<5
Nickel	ug/l	25	mg/L	0.025	<10	<5	<5	<5
Potassium	ug/l	--	mg/L	--	2000	5000	5000	4000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4010	5870	2500	3600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	**0.3**	<0.1
Sodium	ug/l	--	mg/L	--	31000	55000	63000	65000
Strontium	ug/l	--	mg/L	--	238	323	346	368
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	10	40	<10	<10
Vanadium	ug/l	6	mg/L	0.006	1	3	1	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<5	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	13420	**3820**	9420	8410
Conductivity (Field)	uS/cm	--	uS/cm	--	480	510	400	690
pH (Field)	-	8.5	-	8.5	6.8	8.4	6.6	7.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1.5	17	3	11

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 26-Aug-2003	GS11 19-Nov-2003	GS11 26-May-2004	GS11 28-Aug-2004
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	257000	215000	364000	137000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	40	150	50	260
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	5700	1400
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	25000	70000	40000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	119000	125000	184000	95300
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	13000	10100	24800	11200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	298000	296000	395900	188400
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<200	<200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<200	<200
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	820	870	1120	1100
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**40**	**50**	28	19
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	38000	51000	7800	19800
Total Dissolved Solids	ug/l	--	mg/L	--	599000	586000	696000	356000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	40	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<10	<10	15	**87**
Barium	ug/l	--	mg/L	--	50	50	76	28
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	**210**	150	**211**	106
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	65000	69000	91800	38800
Chromium	ug/l	--[14]	mg/L	14	10	3	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	**1.4**	0.5	**1.4**	0.1
Copper	ug/l	5	mg/L	0.005	4	3	1	0.8
Iron	ug/l	300	mg/L	0.3	**540**	**420**	**1360**	**320**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 26-Aug-2003	GS11 19-Nov-2003	GS11 26-May-2004	GS11 28-Aug-2004
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	33000	30000	40400	22200
Manganese	ug/l	--	mg/L	--	137	170	655	161
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	5	8	2
Potassium	ug/l	--	mg/L	--	4000	6000	5400	3800
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3800	4900	4170	260
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	68000	57000	91300	41700
Strontium	ug/l	--	mg/L	--	313	368	470	239
Sulfur	ug/l	--	mg/L	--	--	--	3700	6300
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	10	<10	<5	<5
Vanadium	ug/l	6	mg/L	0.006	4	1	2.3	0.9
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<10	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	**2**	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6440	**6770**	6910	7010
Conductivity (Field)	uS/cm	--	uS/cm	--	595	435	1110	610
pH (Field)	-	8.5	-	8.5	7.4	7.1	7.11	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	14	3	12.5	16

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 25-Nov-2004	GS11 26-May-2005	GS11 26-Aug-2005 [3]	GS11 15-Nov-2005
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	256000	435000	--	467000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	200	260	--	310
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1200	4000	--	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	46000	54000	--	64000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	109000	149000	--	160000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	15900	27400	--	22700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	290500	415000	--	506000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	600	<100	--	100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<200	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1210	1940	--	1910
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**47**	20	--	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	44100	7000	--	30000
Total Dissolved Solids	ug/l	--	mg/L	--	524000	774000	--	890000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**909**	**100**	--	10
Barium	ug/l	--	mg/L	--	53	70	--	70
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<1	<1	--	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	178	**330**	--	**400**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	70600	102000	--	122000
Chromium	ug/l	--[14]	mg/L	14	<5	4	--	7
Cobalt	ug/l	0.9	mg/L	0.0009	**1**	**1.1**	--	**1**
Copper	ug/l	5	mg/L	0.005	2.6	2	--	2
Iron	ug/l	300	mg/L	0.3	**1910**	**2260**	--	**1360**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 25-Nov-2004	GS11 26-May-2005	GS11 26-Aug-2005 [3]	GS11 15-Nov-2005
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.6	<1	--	<1
Magnesium	ug/l	--	mg/L	--	27700	39000	--	49000
Manganese	ug/l	--	mg/L	--	221	930	--	670
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<5	--	<5
Nickel	ug/l	25	mg/L	0.025	6	9	--	11
Potassium	ug/l	--	mg/L	--	6200	8000	--	9000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4840	4400	--	6000
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	58900	95000	--	96000
Strontium	ug/l	--	mg/L	--	325	463	--	584
Sulfur	ug/l	--	mg/L	--	15300	2300	--	10000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.1	--	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	57	<10	--	<10
Vanadium	ug/l	6	mg/L	0.006	3.2	**7**	--	**9**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	9	<10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	**2**	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8810	8810	--	6900
Conductivity (Field)	uS/cm	--	uS/cm	--	700	660	--	780
pH (Field)	-	8.5	-	8.5	7	7.2	--	7.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	3	8	--	8.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 01-Jun-2006	GS11 06-Sep-2006	GS11 20-Nov-2006	GS11 29-May-2007
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	871000	159000	244000	579000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**160**	<20	<20	**238**
Ammonia Nitrogen	ug/l	--	mg/L	--	10400	170	1440	4680
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	406000	2000	9000	4000
Chemical Oxygen Demand	ug/l	--	mg/L	--	809000	49000	55000	83000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	265000	49000	62000	176000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	235000	17200	19000	33700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	859000	158000	245000	601000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	150
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	18000	1850	2350	12800
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**220**	30	**70**	**120**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	10000	14000	18000	90000
Total Dissolved Solids	ug/l	--	mg/L	--	1550000	320000	452000	1090000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**800**	<10	<10	<10
Barium	ug/l	--	mg/L	--	200	30	40	100
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	**1800**	**250**	**450**	**1940**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	232000	37000	60000	140000
Chromium	ug/l	--[14]	mg/L	14	13	3	2	5
Cobalt	ug/l	0.9	mg/L	0.0009	<2	0.4	0.5	**1.3**
Copper	ug/l	5	mg/L	0.005	<10	2	<1	1
Iron	ug/l	300	mg/L	0.3	**1200**	**710**	**330**	**1900**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 01-Jun-2006	GS11 06-Sep-2006	GS11 20-Nov-2006	GS11 29-May-2007
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<10	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	68000	16000	23000	61000
Manganese	ug/l	--	mg/L	--	1900	100	250	1030
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<50	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<50	<5	<5	12
Potassium	ug/l	--	mg/L	--	42000	6000	10000	19000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	7000	3800	1700	6200
Silver	ug/l	0.1	mg/L	0.0001	<1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	175000	35000	41000	117000
Strontium	ug/l	--	mg/L	--	1010	208	319	806
Sulfur	ug/l	--	mg/L	--	3300	4700	6000	30000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<0.1	<0.1	**0.4**
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<100	10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	**10**	3	1	6
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<100	<10	10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**178**	<1	**2**	**2**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**1900**	11040	9990	**4200**
Conductivity (Field)	uS/cm	--	uS/cm	--	2000	660	545	1250
pH (Field)	-	8.5	-	8.5	7.7	7	7.1	8.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17	9	2	11.8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 23-Aug-2007 [3]	GS11 01-May-2008	GS11 11-Aug-2008	GS11 04-Nov-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	563000	547000	659000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	**35**	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	4650	490	450
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	9000	5000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	105000	79000	95000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	137000	173000	222000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	39700	35300	36200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	538000	480000	595000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<100	290	290
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	7760	2520	2580
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**90**	**50**	20
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	38000	34000	57000
Total Dissolved Solids	ug/l	--	mg/L	--	--	962000	1010000	1230000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	20	10	<10
Barium	ug/l	--	mg/L	--	--	100	90	90
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	--	**1600**	**1500**	**1800**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	--	143000	113000	136000
Chromium	ug/l	--[14]	mg/L	14	--	<5	<5	8
Cobalt	ug/l	0.9	mg/L	0.0009	--	**2**	**1.6**	**1.4**
Copper	ug/l	5	mg/L	0.005	--	2	3	3
Iron	ug/l	300	mg/L	0.3	--	**5400**	**1430**	**660**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 23-Aug-2007 [3]	GS11 01-May-2008	GS11 11-Aug-2008	GS11 04-Nov-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	--	44000	48000	62000
Manganese	ug/l	--	mg/L	--	--	1260	410	350
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	--	16	13	13
Potassium	ug/l	--	mg/L	--	--	15000	11000	10000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	7300	7600	6600
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	--	109000	123000	150000
Strontium	ug/l	--	mg/L	--	--	567	766	555
Sulfur	ug/l	--	mg/L	--	--	13000	11000	19000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	10	20	<10
Vanadium	ug/l	6	mg/L	0.006	--	**13**	**13**	**9**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	8400	**4740**	7680
Conductivity (Field)	uS/cm	--	uS/cm	--	--	1050	1500	1550
pH (Field)	-	8.5	-	8.5	--	7.6	8	7.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	10.2	16.4	7.2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 09-Apr-2009 C-7	GS11 05-Aug-2009 GS-11	GS11 03-Nov-2009 GS-11	GS11 01-Jun-2010 SW-2
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	571000	654000	677000	638000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**80**	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	12000	520	470	410
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	28000	4000	<2000	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	160000	120000	110000	110000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	160000[21]	230000	220000	230000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	53900	52900	40400	46900
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	580000	570000	680000	660000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	200	200	200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	10	60	30	100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	13000	3700	3300	3100
Nitrogen, Nitrate-Nitrite	ug/l	--			100	300	200	300
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**92**	**53**	22	28
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	93000[21]	25000	78000	34000
Total Dissolved Solids	ug/l	--	mg/L	--	1050000	1200000	1280000	1200000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	16	9	8	18
Barium	ug/l	--	mg/L	--	130	100	110	120
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200[12]	mg/L	0.2[12]	**1900**	**2500**	**2000**	**2100**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	170000	140000	170000	180000
Chromium	ug/l	--[14]	mg/L	14	<5	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	**2.3**	**1.6**	**1.3**	**2.1**
Copper	ug/l	5	mg/L	0.005	2	3	3	5
Iron	ug/l	300	mg/L	0.3	**5900**	**1300**	**900**	**1600**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 09-Apr-2009 C-7	GS11 05-Aug-2009 GS-11	GS11 03-Nov-2009 GS-11	GS11 01-Jun-2010 SW-2
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.8	<0.5	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	46000	64000	76000	75000
Manganese	ug/l	--	mg/L	--	1500	530	420	560
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	10	13	12	16
Potassium	ug/l	--	mg/L	--	22000	14000	15000	16000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6500	6400	5700	6900
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	120000	200000	200000	200000
Strontium	ug/l	--	mg/L	--	790	830	890	980
Sulfur	ug/l	--	mg/L	--	29000	9700	27000	11000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	26	<5	<5	7
Vanadium	ug/l	6	mg/L	0.006	5	4	3	4
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	10	<5	5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**12**	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8270	8000	8960	10060
Conductivity (Field)	uS/cm	--	uS/cm	--	1350	1826	1706	1937
pH (Field)	-	8.5	-	8.5	7.7	7.62	7.56	7.52
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.6	18.4	8.6	13.2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 13-Aug-2010 L-5	GS11 12-Nov-2010 C-1	GS11 28-Apr-2011 A-2	GS11 24-Aug-2011 C-4
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	576000	760000	518000	500000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	**70**	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	220	610	11000	470
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	3000	33000	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	110000	120000	180000	99000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	240000	240000	140000	270000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	41400	45600	47300	39800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	610000	780000	510000	790000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	100	500	700
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	30	20	40	120
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2900	3900	13000	2900
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	100	500	800
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**35**	**39**	**150**	**31**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	81000	34000	71000	330000
Total Dissolved Solids	ug/l	--	mg/L	--	1190000	1340000	910000	1500000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	12	10	18	8
Barium	ug/l	--	mg/L	--	110	110	130	140
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200[12]	mg/L	0.2[12]	**2000**	**2200**	**1700**	**2600**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	160000	180000	150000	210000
Chromium	ug/l	--[14]	mg/L	14	<5	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	**2.1**	**1.4**	**2.2**	**1.6**
Copper	ug/l	5	mg/L	0.005	**6**	4	4	5
Iron	ug/l	300	mg/L	0.3	**2100**	**1600**	**2200**	**800**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 13-Aug-2010 L-5	GS11 12-Nov-2010 C-1	GS11 28-Apr-2011 A-2	GS11 24-Aug-2011 C-4
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	<0.5	0.7	<0.5
Magnesium	ug/l	--	mg/L	--	69000	84000	42000	82000
Manganese	ug/l	--	mg/L	--	550	730	730	650
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	1.4
Nickel	ug/l	25	mg/L	0.025	16	13	9	16
Potassium	ug/l	--	mg/L	--	13000	16000	26000	21000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	6500	5900	5800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	190000	220000	110000	240000
Strontium	ug/l	--	mg/L	--	890	1000	800	1100
Sulfur	ug/l	--	mg/L	--	29000	13000	25000	110000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	9	<5	36	5
Vanadium	ug/l	6	mg/L	0.006	5	4	3	4.3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<5	18	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**2**	1	1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6820	**6360**	10990	6900
Conductivity (Field)	uS/cm	--	uS/cm	--	1708	1981	1396	1885
pH (Field)	-	8.5	-	8.5	7.08	6.88	7.39	7.68
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	18.5	5.1	13.8	15.9

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 07-Nov-2011 L-4	GS11 05-Jun-2012 GS-11	GS11 29-Aug-2012 GS-11	GS11 19-Nov-2012 GS-11
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	716000	680000	750000	740000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	**76**	3.7	0.6
Ammonia Nitrogen	ug/l	--	mg/L	--	310	8000	200	200
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	53000	4000	6000
Chemical Oxygen Demand	ug/l	--	mg/L	--	130000	260000	140000	130000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	270000	210000	310000	320000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	42300	90000	53000	47000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	770000	630000	910000	980000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	<100	310	450
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	80	12	52	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2600	13000	<1000[24]	3800
Nitrogen, Nitrate-Nitrite	ug/l	--			300	<100	360	450
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**39**	**140**	**110**	**100**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	87000	54000	160000	160000
Total Dissolved Solids	ug/l	--	mg/L	--	1390000	1230000	1530000	1610000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	8	20	8.2	8.3
Barium	ug/l	--	mg/L	--	120	210	150	150
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.5	<0.50	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**2500**	**2400**	**2600**	**2400**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.10	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	180000	180000	240000	230000
Chromium	ug/l	--[14]	mg/L	14	<5	5.1	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	**1.7**	**3.2**	**3.2**	**2.7**
Copper	ug/l	5	mg/L	0.005	4	**5.1**	3.3	**12**
Iron	ug/l	300	mg/L	0.3	**1900**	**9800**	**580**	**6200**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 07-Nov-2011 L-4	GS11 05-Jun-2012 GS-11	GS11 29-Aug-2012 GS-11	GS11 19-Nov-2012 GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	<0.50	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	85000	64000	95000	110000
Manganese	ug/l	--	mg/L	--	500	1600	640	740
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.5	0.66	0.67	1.1
Nickel	ug/l	25	mg/L	0.025	13	16	21	19
Potassium	ug/l	--	mg/L	--	18000	31000	20000	21000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5800	6600	6900	5800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	230000	200000	240000	250000
Strontium	ug/l	--	mg/L	--	1100	1200	1500	1400
Sulfur	ug/l	--	mg/L	--	30000	23000	55000	57000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	0.050	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	8	<5.0	6.2	19
Vanadium	ug/l	6	mg/L	0.006	3.6	5.3	5.7	**8.2**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	8.8	11	7.3
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**9**	**21**	**5.0**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7320	**4870**	**4380**	**6990**
Conductivity (Field)	uS/cm	--	uS/cm	--	1887	1889	2440	804
pH (Field)	-	8.5	-	8.5	7.61	7.57	7.81	7.42
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.4	16.1	16.1	4.8

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 22-Apr-2013 [19] GS-11	GS11 06-Sep-2013 GS-11	GS11 29-Nov-2013 GS-11	GS11 09-May-2014 GS-11
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	770000	750000	780000	360000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**174.69**	7.77	4.69	**130.63**
Ammonia Nitrogen	ug/l	--	mg/L	--	24000	950	1100	3500
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	4000	4000	8000
Chemical Oxygen Demand	ug/l	--	mg/L	--	410000	130000	130000	79000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	190000	280000	280000	97000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	150000	56000	45000	25000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	720000	750000	760000	350000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	410	480	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	210	28	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	27000	3800	3900	6200
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	620	500	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**620**	**63**	**34**	**120**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	6000	69000	56000	37000
Total Dissolved Solids	ug/l	--	mg/L	--	1310000	1430000	1380000	582000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	31	12	6.5	11
Barium	ug/l	--	mg/L	--	230	120	140	68
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<0.50	<0.50	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**2400**	**2500**	**2500**	**880**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	210000	200000	220000	93000
Chromium	ug/l	--[14]	mg/L	14	8.4	<5.0	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	**2.8**	**3.1**	**2.4**	0.71
Copper	ug/l	5	mg/L	0.005	4.4	4.2	**7.9**	<1.0
Iron	ug/l	300	mg/L	0.3	**16000**	**1900**	**2100**	**1000**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 22-Apr-2013 [19]	GS11 06-Sep-2013	GS11 29-Nov-2013	GS11 09-May-2014
					GS-11	GS-11	GS-11	GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	55000	78000	90000	35000
Manganese	ug/l	--	mg/L	--	2200	840	720	570
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	0.52	<0.50
Nickel	ug/l	25	mg/L	0.025	12	19	17	4.1
Potassium	ug/l	--	mg/L	--	38000	20000	25000	16000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	8300	7500	6200	2700
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	170000	240000	240000	84000
Strontium	ug/l	--	mg/L	--	1200	1200	1300	540
Sulfur	ug/l	--	mg/L	--	14000	24000	23000	12000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	18	8.4	5.9	<5.0
Vanadium	ug/l	6	mg/L	0.006	**6.4**	**7.0**	4.5	1.4
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	21	<5.0	<5.0	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**38**	<1.0	**5.0**	**3.1**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**930**	**5270**	-- [23]	**2140**
Conductivity (Field)	uS/cm	--	uS/cm	--	804	2073	2204	909
pH (Field)	-	8.5	-	8.5	7.71	7.47	7.69	8.10
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.7	15.3	0.7	16.6

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 27-Aug-2014 [3] GS11	GS11 24-Nov-2014 GS-11	GS11 14-May-2015 GS-11	GS11 17-Jun-2015 GS-11
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	590000	290000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	**175.14**	**41.01**	**175.9**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	20000	1300	4900
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	130000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	270000	57000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	170000	98000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	98000	21000	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	540000	290000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	1170	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	129	32	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	25000	2900	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	1300	<100	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**190**	**110**	**98**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	87000	26000	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	1060000	500000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	8.9	10	--
Barium	ug/l	--	mg/L	--	--	120	48	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<0.50	<0.50	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	**1700**	**710**	**2400**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.10	<0.10	--
Calcium	ug/l	--	mg/L	--	--	150000	57000	--
Chromium	ug/l	--[14]	mg/L	14	--	<5.0	<5.0	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	**1.9**	0.71	--
Copper	ug/l	5	mg/L	0.005	--	**6.0**	<1.0	--
Iron	ug/l	300	mg/L	0.3	--	**1800**	**490**	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 27-Aug-2014 [3]	GS11 24-Nov-2014	GS11 14-May-2015	GS11 17-Jun-2015
					GS11	GS-11	GS-11	GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	0.89	<0.50	--
Magnesium	ug/l	--	mg/L	--	--	49000	28000	--
Manganese	ug/l	--	mg/L	--	--	600	240	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	0.89	<0.50	--
Nickel	ug/l	25	mg/L	0.025	--	9.8	4.9	--
Potassium	ug/l	--	mg/L	--	--	42000	11000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5400	560	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.10	<0.10	--
Sodium	ug/l	--	mg/L	--	--	150000	69000	--
Strontium	ug/l	--	mg/L	--	--	870	370	--
Sulfur	ug/l	--	mg/L	--	--	34000	8100	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.050	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	34	15	--
Vanadium	ug/l	6	mg/L	0.006	--	2.8	1.9	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	16	<5.0	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	**36**	<1.0	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	7260	**3080**	**2990**
Conductivity (Field)	uS/cm	--	uS/cm	--	--	1716	1011	899
pH (Field)	-	8.5	-	8.5	--	7.84	8.08	7.97
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	5.3	14.9	20.1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 18-Aug-2015 [3]	GS11 20-Nov-2015 [20]	GS11 15-Jun-2016	GS11 23-Aug-2016
					GS11	11	GS11	GS-11
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	800000	748	535
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	**23.76**	**0.02**	**0.03**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	7000	2.6	2.32
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	9000	18	11
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	130000	117	120
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	270000	**213**	**308**
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	1920	2340
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	54000	21.2	16.8
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	810000	623	699
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	2270	2	3.2
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	142	**0.9**	**1.3**
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	10000	6.39	5.7
Nitrogen, Nitrate-Nitrite	ug/l	--			--	2410	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**110**	**0.05**	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	5200	38	**371**
Total Dissolved Solids	ug/l	--	mg/L	--	--	1470000	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	0.11	0.08
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	<25	0.05	0.06
Barium	ug/l	--	mg/L	--	--	150	0.129	0.163
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<0.50	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	--	**2500**	**2.39**	**3.05**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	0.11	0.00007	0.00005
Calcium	ug/l	--	mg/L	--	--	170000	156	175
Chromium	ug/l	--[14]	mg/L	14	--	<5.0	0.004	0.003
Cobalt	ug/l	0.9	mg/L	0.0009	--	**1.9**	**0.0035**	**0.0024**
Copper	ug/l	5	mg/L	0.005	--	**6.2**	**0.008**	**0.0081**
Iron	ug/l	300	mg/L	0.3	--	**1000**	**1.08**	**0.731**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 18-Aug-2015 [3]	GS11 20-Nov-2015 [20]	GS11 15-Jun-2016	GS11 23-Aug-2016
					GS11	11	GS11	GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.50	0.00017	0.00012
Magnesium	ug/l	--	mg/L	--	--	68000	58.1	63.8
Manganese	ug/l	--	mg/L	--	--	520	0.997	1.03
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	--	<0.50	0.0005	0.0012
Nickel	ug/l	25	mg/L	0.025	--	13	0.0186	0.0167
Potassium	ug/l	--	mg/L	--	--	32000	22.4	31.1
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5700	6.09	4.98
Silver	ug/l	0.1	mg/L	0.0001	--	<0.10	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	--	210000	207	266
Strontium	ug/l	--	mg/L	--	--	1100	1.1	1.21
Sulfur	ug/l	--	mg/L	--	--	14000	13.9	153
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.050	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	6.2	< 0.005	< 0.005
Vanadium	ug/l	6	mg/L	0.006	--	3.2	0.0052	0.0028
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<5.0	< 0.005	< 0.005
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1.0	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	7660	2.77	3.91
Conductivity (Field)	uS/cm	--	uS/cm	--	--	1374	1798	2550
pH (Field)	-	8.5	-	8.5	--	7.37	7.5	7.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	6.9	12.2	16.2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 13-Oct-2016 GS-11	GS11 01-May-2017 GS11	GS11 20-Sep-2017 GS-11	GS11 6-Nov-2017 GS-11
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	603	508	739	528
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	0.01	**0.86**	< 0.01	**0.8**
Ammonia Nitrogen	ug/l	--	mg/L	--	0.2	13.1	0.3	9.14
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	7	5	13	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	137	94	123	105
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	**327**	101	**207**	**134**
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	2470	1330	1900	1520
Dissolved Organic Carbon	ug/l	--	mg/L	--	18	25.1	24.6	23.2
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	852	442	687	518
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.9	5.52	0.6	3.36
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.05	< 0.1	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	3.51	16	3.3	12
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.03**	**0.07**	**0.06**	**0.06**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	**262**	52	29	46
Total Dissolved Solids	ug/l	--	mg/L	--	--	762	1148	871
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	0.07	**0.19**	**0.24**	**0.29**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.06	**0.04**	**0.1**	**0.09**
Barium	ug/l	--	mg/L	--	0.146	0.111	0.142	0.154
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**2.74**	**1.99**	**2.38**	**1.86**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.00004	0.000022	0.000021	0.000067
Calcium	ug/l	--	mg/L	--	207	115	160	148
Chromium	ug/l	--[14]	mg/L	14	0.003	0.002	0.004	0.003
Cobalt	ug/l	0.9	mg/L	0.0009	**0.0022**	**0.0018**	**0.0038**	**0.0016**
Copper	ug/l	5	mg/L	0.005	0.0045	0.0046	**0.0056**	**0.0077**
Iron	ug/l	300	mg/L	0.3	**0.984**	**0.57**	**2.36**	**1.13**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 13-Oct-2016 GS-11	GS11 01-May-2017 GS11	GS11 20-Sep-2017 GS-11	GS11 6-Nov-2017 GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00009	0.00018	0.00019	0.00052
Magnesium	ug/l	--	mg/L	--	81.3	37.7	62.3	45.3
Manganese	ug/l	--	mg/L	--	0.851	0.413	0.98	0.483
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0006	0.0008	0.0005	0.0007
Nickel	ug/l	25	mg/L	0.025	0.0166	0.0102	0.0187	0.0112
Potassium	ug/l	--	mg/L	--	24.2	23.8	23	31.8
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5.1	4.75	6.98	5.68
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	266	110	204	136
Strontium	ug/l	--	mg/L	--	1.47	0.745	1.2	0.945
Sulfur	ug/l	--	mg/L	--	103	21.8	12.3	18.9
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	0.017	0.016	0.02
Vanadium	ug/l	6	mg/L	0.006	0.0028	0.0015	**0.007**	0.0019
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	< 0.005	0.012	**0.05**	0.009
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	5.92	6.98	3.84	5.58
Conductivity (Field)	uS/cm	--	uS/cm	--	2640	1338	1715	1355
pH (Field)	-	8.5	-	8.5	8	7.5	7.4	7.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	12.5	7.8	15.8	10

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 30-Apr-2018 GS11	GS11 20-Aug-2018 GS-11	GS11 05-Nov-2018 GS-11
General Chemistry							
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	631	609	727
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**1.39**	0.05	**0.33**
Ammonia Nitrogen	ug/l	--	mg/L	--	17.2	1.18	5.78
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	10	6
Chemical Oxygen Demand	ug/l	--	mg/L	--	166	124	131
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	162	**255**	**259**
Color	color unit	--	color unit	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	1630	2000	1970
Dissolved Organic Carbon	ug/l	--	mg/L	--	24.6	25.6	20.5
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	506	636	601
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	3.94	0.92	1.83
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	0.18	0.06
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	22.5	4.1	9.8
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	**0.07**	**0.02**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	37	155	64
Total Dissolved Solids	ug/l	--	mg/L	--	947	1241	1193
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--
Metals							
Aluminum	ug/l	--[10]	mg/L	0.075	**0.11**	**0.13**	**0.1**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.08**	**0.08**	**0.1**
Barium	ug/l	--	mg/L	--	0.138	0.149	0.142
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**2.25**	**2.59**	**1.82**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.00002	<0.00014	<0.000020
Calcium	ug/l	--	mg/L	--	130	149	147
Chromium	ug/l	--[14]	mg/L	14	0.003	0.004	0.003
Cobalt	ug/l	0.9	mg/L	0.0009	**0.0023**	**0.0035**	**0.0028**
Copper	ug/l	5	mg/L	0.005	**0.0062**	0.0042	0.0049
Iron	ug/l	300	mg/L	0.3	**0.4**	**1.69**	**0.481**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS11 30-Apr-2018 GS11	GS11 20-Aug-2018 GS-11	GS11 05-Nov-2018 GS-11
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00007	0.00021	0.00009
Magnesium	ug/l	--	mg/L	--	44	56.7	56.8
Manganese	ug/l	--	mg/L	--	0.457	1.21	0.709
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0005	<0.001	0.0004
Nickel	ug/l	25	mg/L	0.025	0.0109	0.0163	0.0111
Potassium	ug/l	--	mg/L	--	31.8	25.3	31.6
Selenium	ug/l	100	mg/L	0.1	--	--	--
Silicon	ug/l	--	mg/L	--	4.27	5.88	4.21
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	140	230	189
Strontium	ug/l	--	mg/L	--	0.854	1.08	1.06
Sulfur	ug/l	--	mg/L	--	12.1	46.3	19.2
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00020	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--
Titanium	ug/l	--	mg/L	--	<0.005	0.008	<0.005
Vanadium	ug/l	6	mg/L	0.006	0.0023	**0.006**	0.0023
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<0.005	0.024	0.013
Phenols							
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	0.015	0.01
Field Measurements							
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.05	4.47	11.7
Conductivity (Field)	uS/cm	--	uS/cm	--	1431	1310	1069
pH (Field)	-	8.5	-	8.5	7.6	7.5	7.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8.5	17.3	6.2

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 30-Apr-1992	GS12 08-Sep-1992	GS12 28-Nov-1992	GS12 04-May-1993
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	52000	60000	68000	53000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	9000	13000	16000	11000
Color	color unit	--	color unit	--	6	10	9	9
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	72000	78000	78000	66000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	230	<100	<100	150
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	320	250	460	410
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	320	250	450	410
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**40**	<30	**40**	<30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	24000	18000	22000	21000
Total Dissolved Solids	ug/l	--	mg/L	--	110000	130000	130000	120000
Total Organic Carbon	ug/l	--	mg/L	--	3400	8800	7700	5100
Total Suspended Solids	ug/l	--	mg/L	--	8000	16000	6000	7000
Turbidity	ntu	--[9]	ntu	--[9]	3	5.1	2.6	2.5
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**110**	**200**	<10	**90**
Barium	ug/l	--	mg/L	--	20	20	20	50
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	--	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	60	<10	60	60
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.2	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	14000	18000	18000	15000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<10	<10	--	<0.4
Copper	ug/l	5	mg/L	0.005	**6**	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	160	**320**	90	120

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 30-Apr-1992	GS12 08-Sep-1992	GS12 28-Nov-1992	GS12 04-May-1993
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	9000	8000	8000	7000
Manganese	ug/l	--	mg/L	--	110	180	40	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	**0.3**	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	2000	2000	2000	2000
Selenium	ug/l	100	mg/L	0.1	<1	<1	<1	<1
Silicon	ug/l	--	mg/L	--	1100	400	--	3800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	10000	11000	11000	8000
Strontium	ug/l	--	mg/L	--	10	100	110	171
Sulfur	ug/l	--	mg/L	--	7000	19000	--	13000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<50	<50	--	<5
Tin	ug/l	--	mg/L	--	<50	<50	--	<50
Titanium	ug/l	--	mg/L	--	<10	<10	--	<10
Vanadium	ug/l	6	mg/L	0.006	<10	<10	--	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11400	8500	13300	11000
Conductivity (Field)	uS/cm	--	uS/cm	--	238	225	190	205
pH (Field)	-	8.5	-	8.5	6.5	7.3	7.3	6.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8	15	2	17

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 29-Aug-1993	GS12 11-Nov-1993	GS12 04-Jun-1994	GS12 07-Sep-1994
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	72000	69000	79000	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	16000	17000	19000	19000
Color	color unit	--	color unit	--	8	7	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	6200	9200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	96000	91000	110000	95000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	470	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	500	400	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**40**	<10	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	17000	20000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	140000	130000	140000	140000
Total Organic Carbon	ug/l	--	mg/L	--	8300	6500	--	--
Total Suspended Solids	ug/l	--	mg/L	--	4000	8000	--	--
Turbidity	ntu	--[9]	ntu	--[9]	4.9	2.4	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	<30	--	--
Barium	ug/l	--	mg/L	--	30	20	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	80	80	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	--	--
Calcium	ug/l	--	mg/L	--	22000	20000	--	--
Chromium	ug/l	--[14]	mg/L	14	<10	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	<0.4	--	--
Copper	ug/l	5	mg/L	0.005	<5	<5	--	--
Iron	ug/l	300	mg/L	0.3	<10	130	--	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 29-Aug-1993	GS12 11-Nov-1993	GS12 04-Jun-1994	GS12 07-Sep-1994
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	--	--
Magnesium	ug/l	--	mg/L	--	10000	10000	--	--
Manganese	ug/l	--	mg/L	--	<10	<10	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	--	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	--	--
Potassium	ug/l	--	mg/L	--	2000	2000	--	--
Selenium	ug/l	100	mg/L	0.1	<1	<1	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	--
Sodium	ug/l	--	mg/L	--	10000	11000	11000	6000
Strontium	ug/l	--	mg/L	--	210	<7	120	120
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	<7	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	20	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8200	12400	7600	9900
Conductivity (Field)	uS/cm	--	uS/cm	--	180	220	220	230
pH (Field)	-	8.5	-	8.5	8.1	--	7.2	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	25	3	19	17.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 24-Nov-1994	GS12 28-May-1995	GS12 11-Sep-1995	GS12 07-Nov-1995
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	80000	84000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	20000	22000	22000	21000
Color	color unit	--	color unit	--	--	26	3	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	7800	8200	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	113000	105000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	30	30	10
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	160000	172000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	**120**	**120**	**80**
Barium	ug/l	--	mg/L	--	--	20	20	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	<10	<10	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	70	80	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.15	<0.15	--
Calcium	ug/l	--	mg/L	--	--	27000	24000	--
Chromium	ug/l	--[14]	mg/L	14	--	<10	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	<0.4	--
Copper	ug/l	5	mg/L	0.005	--	<5	<5	--
Iron	ug/l	300	mg/L	0.3	200	270	220	30

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 24-Nov-1994	GS12 28-May-1995	GS12 11-Sep-1995	GS12 07-Nov-1995
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	<2	--
Magnesium	ug/l	--	mg/L	--	--	11000	11000	--
Manganese	ug/l	--	mg/L	--	--	220	150	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	<10	--
Nickel	ug/l	25	mg/L	0.025	--	<10	<10	--
Potassium	ug/l	--	mg/L	--	--	2000	2000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	300	200	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	--	11000	14000	--
Strontium	ug/l	--	mg/L	--	--	139	141	--
Sulfur	ug/l	--	mg/L	--	--	8000	7000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<10	<5	--
Tin	ug/l	--	mg/L	--	--	<50	--	--
Titanium	ug/l	--	mg/L	--	--	<10	<10	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	<7	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12900	9000	-- [23]	--
Conductivity (Field)	uS/cm	--	uS/cm	--	235	265	285	280
pH (Field)	-	8.5	-	8.5	7	7	7.8	8.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1.5	20	16	7

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 17-Jul-1996	GS12 22-Nov-1996	GS12 10-Jun-1997	GS12 09-Sep-1997
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	78000	87000	76000	85000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	22000	16000	17000	19000
Color	color unit	--	color unit	--	6	3	5	5
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7700	6700	7300	9100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	89000	105000	38000	96000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**80**	30	30	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	144000	156000	144000	152000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**100**	**80**	**100**	<30
Barium	ug/l	--	mg/L	--	<10	20	<10	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<10	10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	40	50	50	50
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	19000	24000	21000	22000
Chromium	ug/l	--[14]	mg/L	14	<10	20	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	<0.4	<0.4	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	**11**	<5
Iron	ug/l	300	mg/L	0.3	150	**650**	150	90

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 17-Jul-1996	GS12 22-Nov-1996	GS12 10-Jun-1997	GS12 09-Sep-1997
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	10000	11000	8000	10000
Manganese	ug/l	--	mg/L	--	60	100	60	140
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	**0.5**	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<30	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	2000	2000	2000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	200	800	500	<100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	12000	11000	11000	13000
Strontium	ug/l	--	mg/L	--	122	109	109	105
Sulfur	ug/l	--	mg/L	--	6000	<3000	6000	5000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	--	<50	--	<50
Titanium	ug/l	--	mg/L	--	<10	20	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**4**	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8200	10000	10000	9000
Conductivity (Field)	uS/cm	--	uS/cm	--	150	150	175	210
pH (Field)	-	8.5	-	8.5	8.3	7	7.5	6.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	23	1.5	21	21

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 06-Apr-1998	GS12 09-Jun-1998	GS12 25-Jun-1998	GS12 17-Jul-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	53000	87000	86000	83000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	21000	22000	18000
Color	color unit	--	color unit	--	6	16	7	7
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	4500	9300	8600	8100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	66000	92000	101000	97000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	370	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	120	110
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	880	1220	770	820
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	30	**70**	30	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	12000	15000	15000	11000
Total Dissolved Solids	ug/l	--	mg/L	--	108000	152000	148000	152000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	60	<30	70	60
Barium	ug/l	--	mg/L	--	10	10	<10	<10
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	120	30	50	40
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	15000	22000	24000	24000
Chromium	ug/l	--[14]	mg/L	14	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	<0.4	<0.4	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	190	**580**	110	190

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 06-Apr-1998	GS12 09-Jun-1998	GS12 25-Jun-1998	GS12 17-Jul-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	7000	9000	10000	9000
Manganese	ug/l	--	mg/L	--	60	110	40	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	1000	2000	3000	<1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	1500	600	400	600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	6000	12000	12000	12000
Strontium	ug/l	--	mg/L	--	76	119	126	88
Sulfur	ug/l	--	mg/L	--	5000	6000	5000	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	<50	<50	<50	<50
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10200	11100	9900	8000
Conductivity (Field)	uS/cm	--	uS/cm	--	170	210	210	300
pH (Field)	-	8.5	-	8.5	6.99	**8.71**	**8.89**	7.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6	20.5	29.5	27

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 20-Aug-1998	GS12 26-Sep-1998	GS12 20-Oct-1998	GS12 20-Dec-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	88000	85000	94000	88000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	20000	20000	23000	27000
Color	color unit	--	color unit	--	6	--	4	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7500	9000	8300	9100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	110000	106000	117000	113000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1120	--	860	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**60**	**50**	30	**70**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	121000	--	14000	--
Total Dissolved Solids	ug/l	--	mg/L	--	156000	160000	165000	188000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	50	<30	<30	<30
Barium	ug/l	--	mg/L	--	10	--	<10	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	--	<10	--
Boron	ug/l	200[12]	mg/L	0.2[12]	50	--	50	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	--	<0.15	--
Calcium	ug/l	--	mg/L	--	21000	--	27000	--
Chromium	ug/l	--[14]	mg/L	14	<10	--	20	--
Cobalt	ug/l	0.9	mg/L	0.0009	**7.2**	--	<0.4	--
Copper	ug/l	5	mg/L	0.005	<5	--	<5	--
Iron	ug/l	300	mg/L	0.3	80	130	250	170

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 20-Aug-1998	GS12 26-Sep-1998	GS12 20-Oct-1998	GS12 20-Dec-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	<2	--
Magnesium	ug/l	--	mg/L	--	14000	--	12000	--
Manganese	ug/l	--	mg/L	--	20	80	50	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	**110**	--
Nickel	ug/l	25	mg/L	0.025	<10	--	<10	--
Potassium	ug/l	--	mg/L	--	2000	--	2000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	100	--	100	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	--
Sodium	ug/l	--	mg/L	--	14000	14000	13000	14000
Strontium	ug/l	--	mg/L	--	120	116	117	133
Sulfur	ug/l	--	mg/L	--	5000	--	6000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	<5	--
Tin	ug/l	--	mg/L	--	<50	--	<50	--
Titanium	ug/l	--	mg/L	--	<10	--	150	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	**59**	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	<10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9300	10400	10100	13800
Conductivity (Field)	uS/cm	--	uS/cm	--	270	220	330	220
pH (Field)	-	8.5	-	8.5	8.4	6.92	7.78	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	20.5	15	10	-2.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Apr-1999	GS12 26-May-1999	GS12 25-Jun-1999	GS12 29-Jul-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	87000	103000	103000	90000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	20000	20000	19000	20000
Color	color unit	--	color unit	--	--	9	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10100	10200	10300	13400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	101000	104000	110000	99000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	30	**50**	30	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	96000	160000	156000	156000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**170**	<30	60	**80**
Barium	ug/l	--	mg/L	--	--	20	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<10	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	70	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.15	--	--
Calcium	ug/l	--	mg/L	--	--	25000	--	--
Chromium	ug/l	--[14]	mg/L	14	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	--	--
Copper	ug/l	5	mg/L	0.005	--	<5	--	--
Iron	ug/l	300	mg/L	0.3	60	50	30	**360**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Apr-1999	GS12 26-May-1999	GS12 25-Jun-1999	GS12 29-Jul-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	--	--
Magnesium	ug/l	--	mg/L	--	--	10000	--	--
Manganese	ug/l	--	mg/L	--	<10	<10	<10	140
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	2000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	300	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	12000	14000	15000	15000
Strontium	ug/l	--	mg/L	--	116	130	124	115
Sulfur	ug/l	--	mg/L	--	--	5000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<5	--	--
Tin	ug/l	--	mg/L	--	--	<50	--	--
Titanium	ug/l	--	mg/L	--	--	<10	--	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12200	9200	9000	9500
Conductivity (Field)	uS/cm	--	uS/cm	--	185	210	270	260
pH (Field)	-	8.5	-	8.5	8.2	8.3	8.5	7.6
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15.3	17	24	27

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 31-Aug-1999	GS12 30-Sep-1999	GS12 27-Oct-1999	GS12 29-Nov-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	91000	98000	94000	93000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	24000	20000	23000	26000
Color	color unit	--	color unit	--	5	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10500	11000	9100	10200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	108000	108000	104000	110000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**100**	**60**	**60**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	164000	176000	160000	164000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<30	<30	<30	<30
Barium	ug/l	--	mg/L	--	30	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<10	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	80	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	--	--	--
Calcium	ug/l	--	mg/L	--	25000	--	25000	26000
Chromium	ug/l	--[14]	mg/L	14	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	--	--	--
Iron	ug/l	300	mg/L	0.3	**610**	**450**	50	120

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 31-Aug-1999	GS12 30-Sep-1999	GS12 27-Oct-1999	GS12 29-Nov-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	--	--
Magnesium	ug/l	--	mg/L	--	11000	--	10000	11000
Manganese	ug/l	--	mg/L	--	260	140	<10	20
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	3000	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	300	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	17000	16000	17000	17000
Strontium	ug/l	--	mg/L	--	127	127	130	131
Sulfur	ug/l	--	mg/L	--	5000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	--	--
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6700	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	230	277	269	267
pH (Field)	-	8.5	-	8.5	8.5	8.02	8.02	7.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	25.5	14	10	3

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 21-Dec-1999 [25]	GS12 28-Apr-2000	GS12 01-Jun-2000	GS12 29-Jun-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	88000	97000	94000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	16000	14000	14000
Color	color unit	--	color unit	--	--	--	9	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	6900	8200	8200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	99000	99000	96000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**40**	30	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	136000	148000	128000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	<50	**330**	**220**
Barium	ug/l	--	mg/L	--	--	--	860	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	--	<2	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	110	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	<0.1	--
Calcium	ug/l	--	mg/L	--	--	23000	23000	22000
Chromium	ug/l	--[14]	mg/L	14	--	--	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	<0.4	--
Copper	ug/l	5	mg/L	0.005	--	--	<10	--
Iron	ug/l	300	mg/L	0.3	--	130	190	**340**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 21-Dec-1999 [25]	GS12 28-Apr-2000	GS12 01-Jun-2000	GS12 29-Jun-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	<2	--
Magnesium	ug/l	--	mg/L	--	--	10000	10000	10000
Manganese	ug/l	--	mg/L	--	--	30	40	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	<10	--
Nickel	ug/l	25	mg/L	0.025	--	--	<10	--
Potassium	ug/l	--	mg/L	--	--	--	2000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	2000	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	--
Sodium	ug/l	--	mg/L	--	--	13000	13000	13000
Strontium	ug/l	--	mg/L	--	--	102	140	108
Sulfur	ug/l	--	mg/L	--	--	--	2000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<2	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	<10	--
Vanadium	ug/l	6	mg/L	0.006	--	--	<2	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	30	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	13470	7500	12700
Conductivity (Field)	uS/cm	--	uS/cm	--	--	304	220	300
pH (Field)	-	8.5	-	8.5	--	8.48	6.89	8.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	16.3	11	26

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 30-Jul-2000	GS12 18-Aug-2000	GS12 27-Sep-2000	GS12 30-Oct-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	99000	105000	96000	101000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	19000	18000	19000	21000
Color	color unit	--	color unit	--	--	5	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8500	7600	7600	8100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	92000	103000	96000	105000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**50**	**50**	**40**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	204000	164000	116000	160000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**260**	<50	<50	<50
Barium	ug/l	--	mg/L	--	--	20	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	--	<2	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	70	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.1	--	--
Calcium	ug/l	--	mg/L	--	22000	23000	22000	24000
Chromium	ug/l	--[14]	mg/L	14	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.2	--	--
Copper	ug/l	5	mg/L	0.005	--	<1	--	--
Iron	ug/l	300	mg/L	0.3	**380**	260	140	160

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 30-Jul-2000	GS12 18-Aug-2000	GS12 27-Sep-2000	GS12 30-Oct-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	--	--
Magnesium	ug/l	--	mg/L	--	9000	11000	10000	11000
Manganese	ug/l	--	mg/L	--	110	200	90	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	2000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	580	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	15000	14000	14000	16000
Strontium	ug/l	--	mg/L	--	114	105	111	118
Sulfur	ug/l	--	mg/L	--	--	4000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<1	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	<10	--	--
Vanadium	ug/l	6	mg/L	0.006	--	<1	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	6300	10930	12030
Conductivity (Field)	uS/cm	--	uS/cm	--	246	254	249	238
pH (Field)	-	8.5	-	8.5	6.86	8.3	7.75	7.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	27	22.6	27	9.4

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Dec-2000	GS12 21-Dec-2000 [25]	GS12 30-May-2001	GS12 10-Aug-2001
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	97000	--	109000	89000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	24000	--	20000	31000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	5500	--	8300	11600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	100000	--	108000	93000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	1810	1290
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	30	--	**190**	**80**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	13000	16000
Total Dissolved Solids	ug/l	--	mg/L	--	136000	--	184000	184000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<50	--	**110**	<50
Barium	ug/l	--	mg/L	--	--	--	20	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	<2	<2
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	130	**300**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	22000	--	25000	19000
Chromium	ug/l	--[14]	mg/L	14	--	--	<1	<1
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	<0.2	0.2
Copper	ug/l	5	mg/L	0.005	--	--	<1	<1
Iron	ug/l	300	mg/L	0.3	**680**	--	**460**	240

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Dec-2000	GS12 21-Dec-2000 [25]	GS12 30-May-2001	GS12 10-Aug-2001
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	<1	<1
Magnesium	ug/l	--	mg/L	--	11000	--	11000	11000
Manganese	ug/l	--	mg/L	--	150	--	140	240
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	--	<10	<10
Nickel	ug/l	25	mg/L	0.025	--	--	<10	<10
Potassium	ug/l	--	mg/L	--	--	--	3000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	1190	860
Silver	ug/l	0.1	mg/L	0.0001	--	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	14000	--	15000	23000
Strontium	ug/l	--	mg/L	--	111	--	130	125
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	<10	<10
Vanadium	ug/l	6	mg/L	0.006	--	--	2	<1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	<1	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12200	--	10100	8530
Conductivity (Field)	uS/cm	--	uS/cm	--	340	--	6.87	244
pH (Field)	-	8.5	-	8.5	6.9	--	7.79	**9.2**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2	--	12.9	27.1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 05-Apr-2002	GS12 06-Aug-2002	GS12 01-Nov-2002	GS12 12-May-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	51000	87000	100000	102000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	11000	44000	44000	38000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	2300	11400	8400	6800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	69000	118000	134000	136000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	140	<100	<100	100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	210	1550	1160	1270
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	30	**50**	**40**	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	26000	17000	31000	28000
Total Dissolved Solids	ug/l	--	mg/L	--	127000	224000	257000	240000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	<50	30	<10	20
Barium	ug/l	--	mg/L	--	10	40	20	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<2	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	<50	100	90	60
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	16000	24000	29000	33000
Chromium	ug/l	--[14]	mg/L	14	<1	2	<1	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.7	0.3	0.7	0.3
Copper	ug/l	5	mg/L	0.005	<1	2	1	2
Iron	ug/l	300	mg/L	0.3	10	**420**	230	110

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 05-Apr-2002	GS12 06-Aug-2002	GS12 01-Nov-2002	GS12 12-May-2003
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	7000	14000	15000	13000
Manganese	ug/l	--	mg/L	--	110	191	156	124
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<10	6	<5	<5
Nickel	ug/l	25	mg/L	0.025	<10	<5	<5	<5
Potassium	ug/l	--	mg/L	--	<1000	3000	3000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	1560	320	800	200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	9000	26000	29000	18000
Strontium	ug/l	--	mg/L	--	73	135	155	155
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<1	**7**	2	1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<5	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9170	5320	**6210**	8980
Conductivity (Field)	uS/cm	--	uS/cm	--	160	180	190	320
pH (Field)	-	8.5	-	8.5	6.9	**9.6**	7	8.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	0.5	22	4	15

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 26-Aug-2003	GS12 19-Nov-2003	GS12 26-May-2004	GS12 28-Aug-2004
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	87000	72000	113000	352000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	48000	20000	53800	151000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9200	5200	7700	20200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	121000	82000	149200	388800
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<200	<200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<200	<200
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	970	520	660	1260
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	20	**60**	**37**	<2
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	32000	15000	17100	20600
Total Dissolved Solids	ug/l	--	mg/L	--	233000	157000	242000	656000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	39	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	10	20	11	55
Barium	ug/l	--	mg/L	--	10	10	27	54
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	100	50	80	**256**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	22000	18000	32800	89000
Chromium	ug/l	--[14]	mg/L	14	2	1	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	<0.2	0.6	0.4	0.7
Copper	ug/l	5	mg/L	0.005	<1	2	2.4	2.5
Iron	ug/l	300	mg/L	0.3	110	**1060**	250	120

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 26-Aug-2003	GS12 19-Nov-2003	GS12 26-May-2004	GS12 28-Aug-2004
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	16000	9000	16300	40400
Manganese	ug/l	--	mg/L	--	42	570	115	57
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	<5	2	9
Potassium	ug/l	--	mg/L	--	2000	2000	2300	4900
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	<100	1900	220	4040
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	23000	10000	23700	94900
Strontium	ug/l	--	mg/L	--	130	113	185	428
Sulfur	ug/l	--	mg/L	--	--	--	6200	6800
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<1	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<5	<5
Vanadium	ug/l	6	mg/L	0.006	2	<1	<0.5	1.4
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<10	14	6
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7630	**6380**	7220	6940
Conductivity (Field)	uS/cm	--	uS/cm	--	400	295	356	410
pH (Field)	-	8.5	-	8.5	8	7.5	7.78	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16	1	17.8	15

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 25-Nov-2004	GS12 26-May-2005	GS12 26-Aug-2005	GS12 15-Nov-2005
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	152000	144000	128000	180000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	86000	115000	194000	106000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8500	11600	17100	10200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	198800	201000	233000	253000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<200	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<200	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	850	1530	2680	830
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	17	**40**	**170**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	28900	24000	29000	35000
Total Dissolved Solids	ug/l	--	mg/L	--	364000	452000	621000	495000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	56	10	20	<10
Barium	ug/l	--	mg/L	--	28	30	40	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	100	150	**270**	190
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	47600	41000	42000	60000
Chromium	ug/l	--[14]	mg/L	14	<5	1	4	6
Cobalt	ug/l	0.9	mg/L	0.0009	0.1	<0.2	0.2	0.3
Copper	ug/l	5	mg/L	0.005	0.6	<1	<1	<1
Iron	ug/l	300	mg/L	0.3	180	60	120	180

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 25-Nov-2004	GS12 26-May-2005	GS12 26-Aug-2005	GS12 15-Nov-2005
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	19400	24000	31000	25000
Manganese	ug/l	--	mg/L	--	240	<10	190	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	2	<5	<5	<5
Potassium	ug/l	--	mg/L	--	3100	3000	8000	4000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	650	200	500	1700
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	38700	54000	99000	55000
Strontium	ug/l	--	mg/L	--	249	276	337	288
Sulfur	ug/l	--	mg/L	--	9900	8000	9700	11700
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<0.5	2	2	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8340	8990	8720	7900
Conductivity (Field)	uS/cm	--	uS/cm	--	645	590	1010	410
pH (Field)	-	8.5	-	8.5	7	7.3	6.7	7.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2	7	30.5	1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Jun-2006	GS12 06-Sep-2006	GS12 20-Nov-2006	GS12 29-May-2007
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	238000	218000	265000	298000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	**353**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	58000	63000	66000	67000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	16800	18000	23700	20300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	234000	224000	260000	293000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	150	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	<50	1960	2840	9700
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**40**	20	**50**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	19000	18000	21000	27000
Total Dissolved Solids	ug/l	--	mg/L	--	430000	426000	487000	516000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	20	10	<10	10
Barium	ug/l	--	mg/L	--	40	30	40	50
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	**290**	**400**	**490**	**660**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	59000	50000	63000	73000
Chromium	ug/l	--[14]	mg/L	14	2	3	2	3
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	0.3	0.4	0.6
Copper	ug/l	5	mg/L	0.005	<1	<1	<1	2
Iron	ug/l	300	mg/L	0.3	**310**	140	**370**	**430**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Jun-2006	GS12 06-Sep-2006	GS12 20-Nov-2006	GS12 29-May-2007
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	21000	24000	25000	27000
Manganese	ug/l	--	mg/L	--	190	110	350	230
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	5	5
Potassium	ug/l	--	mg/L	--	8000	9000	11000	10000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	600	700	1800	1600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	33000	43000	45000	46000
Strontium	ug/l	--	mg/L	--	293	299	337	384
Sulfur	ug/l	--	mg/L	--	6300	6000	7000	9000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	<0.1	**0.4**
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<1	2	2	1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	20	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	1	<1	**6**	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**4500**	11020	10510	11570
Conductivity (Field)	uS/cm	--	uS/cm	--	550	620	580	750
pH (Field)	-	8.5	-	8.5	8.5	7.2	7.2	**8.6**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	26	10	3	23.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Aug-2007	GS12 25-Nov-2007	GS12 01-May-2008	GS12 11-Aug-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	200000	181000	268000	186000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	68000	68000	61000	64000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	19200	15100	17700	18100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	204000	201000	288000	199000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	120	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1600	--	3840	1980
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**150**	**40**	**40**	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	34000	--	39000	36000
Total Dissolved Solids	ug/l	--	mg/L	--	432000	415000	495000	405000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	10	--	10	20
Barium	ug/l	--	mg/L	--	50	--	50	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	--	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	**840**	**510**	**700**	**680**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	39000	41000	74000	37000
Chromium	ug/l	--[14]	mg/L	14	3	--	<5	4
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	--	**1**	0.2
Copper	ug/l	5	mg/L	0.005	1	--	1	<1
Iron	ug/l	300	mg/L	0.3	**1070**	**390**	**730**	100

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Aug-2007	GS12 25-Nov-2007	GS12 01-May-2008	GS12 11-Aug-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	--	<1	<1
Magnesium	ug/l	--	mg/L	--	26000	24000	25000	26000
Manganese	ug/l	--	mg/L	--	910	100	550	80
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	--	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	--	8	<5
Potassium	ug/l	--	mg/L	--	10000	--	8000	7000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	800	--	3400	400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	49000	42000	45000	47000
Strontium	ug/l	--	mg/L	--	304	--	340	287
Sulfur	ug/l	--	mg/L	--	11300	--	13000	12000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	--	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	<10	<10
Vanadium	ug/l	6	mg/L	0.006	5	--	4	4
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**4520**	8340	6030	5720
Conductivity (Field)	uS/cm	--	uS/cm	--	700	500	550	600
pH (Field)	-	8.5	-	8.5	7.9	7.4	7.5	**9.2**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	21.1	0.7	13.8	21.1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 04-Nov-2008	GS12 09-Apr-2009 C-5	GS12 05-Aug-2009 GS-12	GS12 03-Nov-2009 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	196000	221000	169000	209000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	**30**	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	72000	58000	83000	89000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	16700	14300	20700	18000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	199000	240000	180000	230000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	300	<100	200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1160	2400	1900	1800
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	300	<100	200
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	20	25	**57**	23
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	43000	40000	43000	47000
Total Dissolved Solids	ug/l	--	mg/L	--	437000	450000	410000	495000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	10	7	17	8
Barium	ug/l	--	mg/L	--	30	39	26	34
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<0.5	<0.5	<0.5
Boron	ug/l	200[12]	mg/L	0.2[12]	**720**	**530**	**760**	**760**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	40000	57000	31000	48000
Chromium	ug/l	--[14]	mg/L	14	2	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.3	<0.5	<0.5	<0.5
Copper	ug/l	5	mg/L	0.005	<1	1	<1	<1
Iron	ug/l	300	mg/L	0.3	80	**400**	200	300

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 04-Nov-2008	GS12 09-Apr-2009 C-5	GS12 05-Aug-2009 GS-12	GS12 03-Nov-2009 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<0.5	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	24000	23000	28000	33000
Manganese	ug/l	--	mg/L	--	30	270	48	66
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	4	5	5
Potassium	ug/l	--	mg/L	--	7000	6500	7800	7900
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	500	2100	560	660
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	48000	44000	63000	75000
Strontium	ug/l	--	mg/L	--	267	280	270	290
Sulfur	ug/l	--	mg/L	--	14000	14000	13000	16000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	8	<5	6
Vanadium	ug/l	6	mg/L	0.006	1	2	2	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	13	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8630	**5500**	9130	7280
Conductivity (Field)	uS/cm	--	uS/cm	--	525	600	651	307
pH (Field)	-	8.5	-	8.5	8.5	8.3	8.48	7.46
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8.3	7.7	26.2	9.0

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Jun-2010 SW-7	GS12 13-Aug-2010 L-6	GS12 12-Nov-2010 C-2	GS12 28-Apr-2011 A-1
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	219000	224000	227000	269000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	89000	120000	96000	77000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	26100	21200	19000	18100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	240000	240000	250000	290000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	100	200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1900	2800	1900	3200
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	<100	<100	100	200
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**69**	**84**	**70**	**67**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	40000	39000	35000	35000
Total Dissolved Solids	ug/l	--	mg/L	--	490000	540000	502000	510000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	35	16	11	9
Barium	ug/l	--	mg/L	--	48	32	40	48
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200[12]	mg/L	0.2[12]	**750**	**870**	**780**	**730**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	53000	44000	51000	74000
Chromium	ug/l	--[14]	mg/L	14	<5	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	<0.5	0.6	<0.5	0.8
Copper	ug/l	5	mg/L	0.005	3	2	1	2
Iron	ug/l	300	mg/L	0.3	**600**	**1000**	200	**600**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 01-Jun-2010 SW-7	GS12 13-Aug-2010 L-6	GS12 12-Nov-2010 C-2	GS12 28-Apr-2011 A-1
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	0.5	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	36000	36000	34000	29000
Manganese	ug/l	--	mg/L	--	210	250	29	150
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	6	6	6	5
Potassium	ug/l	--	mg/L	--	8000	8500	8400	9100
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	680	1500	620	1600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	70000	85000	78000	58000
Strontium	ug/l	--	mg/L	--	350	290	320	390
Sulfur	ug/l	--	mg/L	--	14000	13000	12000	12000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	22	28	9	24
Vanadium	ug/l	6	mg/L	0.006	1	4	1	1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	7	<5	8
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7420	5390	8090	10400
Conductivity (Field)	uS/cm	--	uS/cm	--	788	750	738	777
pH (Field)	-	8.5	-	8.5	7.40	7.11	6.51	7.10
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	23.6	25.0	4.4	13.5

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 24-Aug-2011 C-3	GS12 07-Nov-2011 L-6	GS12 05-Jun-2012 GS-12	GS12 29-Aug-2012 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	170000	214000	220000	200000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	6.8	**53**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	91000	100000	87000	110000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	16900	17000	23000	25000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	190000	230000	200000	220000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1800	1700	1800	5000
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	<100	<100	<100	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**56**	**55**	**40**	**320**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	35000	43000	34000	31000
Total Dissolved Solids	ug/l	--	mg/L	--	448000	820000	452000	512000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	15	8	14	**96**
Barium	ug/l	--	mg/L	--	21	33	28	6.2
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<0.5	<0.5	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**740**	**890**	**770**	**990**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	28000	43000	41000	32000
Chromium	ug/l	--[14]	mg/L	14	<5	<5	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.5	<0.5	<0.50	<0.50
Copper	ug/l	5	mg/L	0.005	<1	2	1.7	<1.0
Iron	ug/l	300	mg/L	0.3	200	200	240	<100

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 24-Aug-2011 C-3	GS12 07-Nov-2011 L-6	GS12 05-Jun-2012 GS-12	GS12 29-Aug-2012 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	<0.5	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	30000	32000	32000	37000
Manganese	ug/l	--	mg/L	--	97	54	50	66
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.5	0.5	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	4	5	5.5	5.4
Potassium	ug/l	--	mg/L	--	8300	8700	7700	9400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	560	580	460	860
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	71000	77000	71000	88000
Strontium	ug/l	--	mg/L	--	220	330	340	300
Sulfur	ug/l	--	mg/L	--	11000	15000	12000	11000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5	6	<5.0	<5.0
Vanadium	ug/l	6	mg/L	0.006	2.2	0.9	1.6	2.2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	<5	<5.0	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	**4**	<1.0	**2.5**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8300	10300	8320	11780
Conductivity (Field)	uS/cm	--	uS/cm	--	591	755	705	753
pH (Field)	-	8.5	-	8.5	**8.89**	7.87	8.30	**9.35**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	25.0	9.8	23.3	24.7

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 19-Nov-2012 GS-12	GS12 22-Apr-2013 GS-12	GS12 06-Sep-2013 GS-12	GS12 29-Nov-2013 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	250000	260000	190000	270000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1	**27.45**	<10.98	**28.49**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	110000	77000	110000	120000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	21000	19000	22000	21000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	290000	270000	190000	260000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	100	<100	200
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	12	<10	23
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	3000	3900	2400	3600
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	<100	120	<100	230
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**67**	**150**	**69**	**96**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	43000	37000	33000	35000
Total Dissolved Solids	ug/l	--	mg/L	--	508000	484000	442000	516000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	15	10	14	5.2
Barium	ug/l	--	mg/L	--	16	66	29	49
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	<0.50	<0.50	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**910**	**750**	**980**	**960**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	52000	67000	31000	59000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<5.0	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	**1.4**	<0.50	<0.50
Copper	ug/l	5	mg/L	0.005	1.4	3.9	<1.0	**5.5**
Iron	ug/l	300	mg/L	0.3	**320**	**2300**	210	**380**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 19-Nov-2012 GS-12	GS12 22-Apr-2013 GS-12	GS12 06-Sep-2013 GS-12	GS12 29-Nov-2013 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	0.58	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	40000	27000	34000	39000
Manganese	ug/l	--	mg/L	--	83	690	190	73
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	0.57	<0.50	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	5.5	6.8	5.4	6.8
Potassium	ug/l	--	mg/L	--	10000	9600	13000	16000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	880	5500	600	680
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	93000	59000	87000	96000
Strontium	ug/l	--	mg/L	--	390	390	300	430
Sulfur	ug/l	--	mg/L	--	15000	13000	12000	13000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	8.3	70	9.4	17
Vanadium	ug/l	6	mg/L	0.006	1.9	4.1	1.8	2.0
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5.0	14	<5.0	8.9
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	**2.7**	<1.0	**5.8**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**1970**	**2010**	6810	-- [23]
Conductivity (Field)	uS/cm	--	uS/cm	--	831	552	683	908
pH (Field)	-	8.5	-	8.5	8.02	7.82	**8.82**	8.28
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	2.2	9.8	21.0	6.4

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 09-May-2014 GS-12	GS12 27-Aug-2014 GS-12	GS12 24-Nov-2014 GS-12	GS12 14-May-2015 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	350000	250000	180000	300000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**122.18**	**29.66**	2.8	**54**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	99000	120000	49000	100000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	24000	25000	12000	21000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	340000	220000	170000	310000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	31
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	5800	3700	1700	3000
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	<100	<100	<100	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**110**	**220**	**71**	**110**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	37000	29000	27000	27000
Total Dissolved Solids	ug/l	--	mg/L	--	550000	506000	282000	488000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	13	12	<5.0	9
Barium	ug/l	--	mg/L	--	66	28	30	56
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	<0.50	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**820**	**970**	**490**	**830**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<0.10	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	89000	40000	36000	64000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<5.0	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	0.75	<0.50	<0.50	<0.50
Copper	ug/l	5	mg/L	0.005	<1.0	1.1	1.9	<1.0
Iron	ug/l	300	mg/L	0.3	**720**	**450**	**620**	170

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 09-May-2014 GS-12	GS12 27-Aug-2014 GS-12	GS12 24-Nov-2014 GS-12	GS12 14-May-2015 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.50	<0.50	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	33000	31000	20000	32000
Manganese	ug/l	--	mg/L	--	480	200	180	150
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	4.9	5.4	2.8	4.9
Potassium	ug/l	--	mg/L	--	16000	15000	8200	13000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	2500	1700	1700	310
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	80000	92000	44000	77000
Strontium	ug/l	--	mg/L	--	510	370	220	430
Sulfur	ug/l	--	mg/L	--	12000	11000	8800	8800
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5.0	12	18	<5.0
Vanadium	ug/l	6	mg/L	0.006	1.4	2.1	1.0	1.6
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5.0	6.4	6.5	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**2.7**	**3.8**	**4.4**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**3570**	9630	7710	**3890**
Conductivity (Field)	uS/cm	--	uS/cm	--	898	881	543	904
pH (Field)	-	8.5	-	8.5	8.12	**8.75**	7.69	8.10
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.3	25.4	5.3	16.1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 17-Jun-2015 GS-12	GS12 18-Aug-2015 GS-12	GS12 20-Nov-2015 12	GS12 15-Jun-2016 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	220000	270000	277
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	2.43	8.97	1.3	**0.17**
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	120000	110000	100
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	881
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	25000	23000	18.4
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	190000	260000	225
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<100	120	0.1
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<10	39	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	2500	1600	4.43
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	<100	160	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**110**	**510**	**98**	**0.12**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	25000	29000	29
Total Dissolved Solids	ug/l	--	mg/L	--	--	482000	528000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	0.13
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	17	11	0.03
Barium	ug/l	--	mg/L	--	--	33	45	0.053
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<0.50	<0.50	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**850**	**1100**	**990**	**0.919**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.10	<0.10	0.00007
Calcium	ug/l	--	mg/L	--	--	30000	46000	45.9
Chromium	ug/l	--[14]	mg/L	14	--	<5.0	<5.0	< 0.002
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.68	<0.50	0.0007
Copper	ug/l	5	mg/L	0.005	--	1.7	1.3	0.0044
Iron	ug/l	300	mg/L	0.3	--	**1600**	**360**	**0.356**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 17-Jun-2015 GS-12	GS12 18-Aug-2015 GS-12	GS12 20-Nov-2015 12	GS12 15-Jun-2016 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<0.50	<0.50	0.001
Magnesium	ug/l	--	mg/L	--	--	31000	32000	34.5
Manganese	ug/l	--	mg/L	--	--	230	68	0.155
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	--	<0.50	<0.50	0.0004
Nickel	ug/l	25	mg/L	0.025	--	6.5	5.5	0.0077
Potassium	ug/l	--	mg/L	--	--	13000	13000	13.5
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	2400	830	0.8
Silver	ug/l	0.1	mg/L	0.0001	--	**0.21**	<0.10	< 0.00002
Sodium	ug/l	--	mg/L	--	--	89000	86000	86.3
Strontium	ug/l	--	mg/L	--	--	280	340	0.469
Sulfur	ug/l	--	mg/L	--	--	7700	10000	10.2
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.050	<0.050	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	37	10	0.007
Vanadium	ug/l	6	mg/L	0.006	--	4.3	1.4	0.003
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	5.6	<5.0	0.006
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1.0	<1.0	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**3640**	**3760**	--	18.74
Conductivity (Field)	uS/cm	--	uS/cm	--	833	895	489	881
pH (Field)	-	8.5	-	8.5	8.04	8.14	7.64	8.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	21.1	23.1	4.5	28.1

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Aug-2016 GS-12	GS12 13-Oct-2016 GS-12	GS12 01-May-2017 GS-12	GS12 20-Sep-2017 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	214	241	342	208
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**0.07**	**0.07**	**0.43**	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	114	117	76.6	71.6
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	834	851	979	699
Dissolved Organic Carbon	ug/l	--	mg/L	--	13.4	20.4	18.6	18.8
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	210	196	357	217
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	< 0.1	< 0.1	0.36	< 0.1
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.1	< 0.05	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	3.3	4.6	6.98	2.1
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.1**	**0.2**	**0.09**	**0.07**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	33	34	43	23
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	541	385
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	0.1	0.1	0.09	0.07
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.02	0.03	0.03	0.04
Barium	ug/l	--	mg/L	--	0.064	0.035	0.064	0.041
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**1.07**	**0.971**	**0.927**	**0.89**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.0001	0.00002	< 0.000014	< 0.000014
Calcium	ug/l	--	mg/L	--	25.9	25.7	85	36.7
Chromium	ug/l	--[14]	mg/L	14	0.002	< 0.002	0.001	< 0.001
Cobalt	ug/l	0.9	mg/L	0.0009	0.0005	0.0003	0.0009	0.0003
Copper	ug/l	5	mg/L	0.005	0.0044	0.0011	0.0018	0.0009
Iron	ug/l	300	mg/L	0.3	0.221	0.249	0.227	0.151

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 23-Aug-2016 GS-12	GS12 13-Oct-2016 GS-12	GS12 01-May-2017 GS-12	GS12 20-Sep-2017 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00083	0.00025	0.00004	0.00005
Magnesium	ug/l	--	mg/L	--	35.3	32	35.3	30
Manganese	ug/l	--	mg/L	--	0.1	0.106	0.248	0.112
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	0.00003	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0005	0.0006	0.0004	0.0002
Nickel	ug/l	25	mg/L	0.025	0.0095	0.0046	0.0078	0.0045
Potassium	ug/l	--	mg/L	--	13.7	13.4	12.4	10.8
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	1.27	0.21	1.66	0.31
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	95.8	89.6	76.7	72.3
Strontium	ug/l	--	mg/L	--	0.331	0.316	0.547	0.365
Sulfur	ug/l	--	mg/L	--	12.4	10.6	18.3	8.4
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.00006	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	< 0.005	0.005	< 0.005
Vanadium	ug/l	6	mg/L	0.006	0.0048	0.0035	0.0011	0.0016
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**0.036**	< 0.005	**0.107**	**0.042**
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	13.99	10.32	9.77	10.92
Conductivity (Field)	uS/cm	--	uS/cm	--	801	820	933	615
pH (Field)	-	8.5	-	8.5	**9.5**	**8.8**	8.1	**8.7**
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	22.7	13.7	11.8	26.6

SURFACE WATER DATA

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 06-Nov-2017 GS-12	GS12 30-Apr-2018 GS-12	GS12 20-Aug-2018 GS-12	GS12 05-Nov-2018 GS-12
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	224	300	176	254
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**0.04**	**0.38**	**0.02**	<0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	--	3.22	0.05	0.09
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<3	5	7
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	90	95	71
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	67.8	82.9	96.2	96.4
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	690	860	686	797
Dissolved Organic Carbon	ug/l	--	mg/L	--	17	17	20.5	17.3
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	226	292	168	219
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.27	0.35	< 0.05	< 0.05
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2.4	5.1	2.4	1.9
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**	**0.07**	**0.07**	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	23	29	24	27
Total Dissolved Solids	ug/l	--	mg/L	--	370	469	362	434
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	0.06	0.06	0.05	0.06
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.03	0.05	0.03	0.047
Barium	ug/l	--	mg/L	--	0.037	0.024	0.009	0.049
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**0.757**	**0.75**	**0.852**	**0.807**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000165	<0.000015	<0.00014	0.000025
Calcium	ug/l	--	mg/L	--	41.9	70.4	17.4	39.2
Chromium	ug/l	--[14]	mg/L	14	< 0.001	< 0.001	< 0.002	< 0.001
Cobalt	ug/l	0.9	mg/L	0.0009	0.0003	0.0006	< 0.001	0.0004
Copper	ug/l	5	mg/L	0.005	0.0042	0.0012	0.0017	0.0087
Iron	ug/l	300	mg/L	0.3	0.117	0.087	0.074	0.159

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS12 06-Nov-2017 GS-12	GS12 30-Apr-2018 GS-12	GS12 20-Aug-2018 GS-12	GS12 05-Nov-2018 GS-12
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00037		0.00044	0.00037
Magnesium	ug/l	--	mg/L	--	26.3	28.2	28.6	29.4
Manganese	ug/l	--	mg/L	--	0.078	0.164	0.109	0.056
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0003	<0.0001	<0.001	0.0004
Nickel	ug/l	25	mg/L	0.025	0.0064	0.0058	0.0054	0.0048
Potassium	ug/l	--	mg/L	--	11	11.3	10.6	11.7
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	0.7	1.36	1.27	0.35
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.0002	< 0.0001
Sodium	ug/l	--	mg/L	--	64.2	63	78.6	76.9
Strontium	ug/l	--	mg/L	--	0.343	0.433	0.216	0.348
Sulfur	ug/l	--	mg/L	--	8.7	9.3	8.1	8.7
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	0.0002	< 0.005	0.005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium	ug/l	6	mg/L	0.006	0.0004	0.0011	0.0027	0.0015
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.009	0.005	0.019	0.011
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	0.004	0.003
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6.48	8.85	9.68	12.7
Conductivity (Field)	uS/cm	--	uS/cm	--	662	730	510	572
pH (Field)	-	8.5	-	8.5	8.2	8.1	9.2	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.5	10.6	29.1	4.5

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 06-Sep-1992	GS15 28-Nov-1992	GS15 04-May-1993	GS15 29-Aug-1993
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	66000	86000	54000	73000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<100	10	<10	<10
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	4000	1000	4000
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	27000	16000	23000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	13000	16000	11000	17000
Color	color unit	--	color unit	--	7	11	11	10
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	82000	95000	64000	96000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	160	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	650	390	310	500
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	650	380	310	500
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	30	**40**	<30	30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	19000	26000	20000	17000
Total Dissolved Solids	ug/l	--	mg/L	--	130000	140000	120000	140000
Total Organic Carbon	ug/l	--	mg/L	--	9200	8000	4600	8100
Total Suspended Solids	ug/l	--	mg/L	--	6000	11000	16000	6000
Turbidity	ntu	-- [9]	ntu	-- [9]	3.9	2.4	3	2.7
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**320**	60	**130**	<30
Barium	ug/l	--	mg/L	--	20	20	20	30
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	<10	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	90	50	<10	70
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	18000	25000	14000	22000
Chromium	ug/l	-- [14]	mg/L	14	30	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	<10	--	<0.4	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	260	120	270	<10

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 06-Sep-1992	GS15 28-Nov-1992	GS15 04-May-1993	GS15 29-Aug-1993
Lead	ug/l	--[15]	mg/L	--[15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	9000	8000	7000	10000
Manganese	ug/l	--	mg/L	--	130	30	<10	<10
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	--	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	2000	2000	2000	2000
Selenium	ug/l	100	mg/L	0.1	<1	<1	<1	<1
Silicon	ug/l	--	mg/L	--	500	--	800	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	10000	11000	8000	11000
Strontium	ug/l	--	mg/L	--	110	110	<7	<7
Sulfur	ug/l	--	mg/L	--	6000	--	9000	--
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<50	--	<5	<5
Tin	ug/l	--	mg/L	--	<50	--	<50	--
Titanium	ug/l	--	mg/L	--	<10	--	<10	--
Vanadium	ug/l	6	mg/L	0.006	<10	--	<7	<7
Zinc	ug/l	30[13]	mg/L	0.03[13]	<10	<10	10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	10100	13600	10600	8200
Conductivity (Field)	uS/cm	--	uS/cm	--	210	210	220	190
pH (Field)	-	8.5	-	8.5	7.6	7	5.8	8.4
Temperature (Field)	deg c	--[8]	deg c	--[8]	15	2	16	25

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 11-Nov-1993	GS15 04-Jun-1994	GS15 07-Sep-1994	GS15 24-Nov-1994
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	64000	73000	76000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	60	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	20000	13000	25000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	17000	18000	19000	19000
Color	color unit	--	color unit	--	7	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	5400	9000	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	91000	117000	95000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	120	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	440	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	<10	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	21000	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	140000	130000	140000	--
Total Organic Carbon	ug/l	--	mg/L	--	7200	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	11000	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	3.1	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	<30	--	--	--
Barium	ug/l	--	mg/L	--	10	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	70	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	--	--	--
Calcium	ug/l	--	mg/L	--	20000	--	--	--
Chromium	ug/l	-- [14]	mg/L	14	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<0.4	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	--	--	--
Iron	ug/l	300	mg/L	0.3	30	--	--	120

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 11-Nov-1993	GS15 04-Jun-1994	GS15 07-Sep-1994	GS15 24-Nov-1994
Lead	ug/l	--[15]	mg/L	--[15]	<2	--	--	--
Magnesium	ug/l	--	mg/L	--	10000	--	--	--
Manganese	ug/l	--	mg/L	--	<10	--	--	--
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.2	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	2000	--	--	--
Selenium	ug/l	100	mg/L	0.1	<1	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	11000	10000	6000	--
Strontium	ug/l	--	mg/L	--	130	120	110	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<5	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	--	--
Zinc	ug/l	30[13]	mg/L	0.03[13]	<10	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	**2**	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	12300	9400	9400	12900
Conductivity (Field)	uS/cm	--	uS/cm	--	220	240	240	240
pH (Field)	-	8.5	-	8.5	--	6.8	7.4	7
Temperature (Field)	deg c	--[8]	deg c	--[8]	4	16.5	17	1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 28-May-1995 [4]	GS15 11-Sep-1995 [4]	GS15 07-Nov-1995 [4]	GS15 17-Jul-1996 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	--	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	--	--	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	--	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	-- [14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	--	--	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 28-May-1995 [4]	GS15 11-Sep-1995 [4]	GS15 07-Nov-1995 [4]	GS15 17-Jul-1996 [4]
Lead	ug/l	-- [15]	mg/L	-- [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	--	--	--
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	--	--	--
pH (Field)	-	8.5	-	8.5	--	--	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	--	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 22-Nov-1996 [4]	GS15 10-Jun-1997 [4]	GS15 09-Sep-1997 [4]	GS15 11-Jun-1998 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	--	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	--	--	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	--	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	-- [14]	mg/L	14	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	--	--	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 22-Nov-1996 [4]	GS15 10-Jun-1997 [4]	GS15 09-Sep-1997 [4]	GS15 11-Jun-1998 [4]
Lead	ug/l	--[15]	mg/L	--[15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	--	--	--	--
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	--	--	--
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30[13]	mg/L	0.03[13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	--	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	--	--	--
pH (Field)	-	8.5	-	8.5	--	--	--	--
Temperature (Field)	deg c	--[8]	deg c	--[8]	--	--	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 20-Aug-1998 [4]	GS15 25-May-1999 [4]	GS15 31-Aug-1999 [4]	GS15 05-Apr-2002
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	--	--	31000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	320
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	<5000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	--	--	5000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	1700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	--	--	46000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	530
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	540
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	--	--	30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	20000
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	86000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	--	--	50
Barium	ug/l	--	mg/L	--	--	--	--	10
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	--	--	<2
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	--	<50
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	--	--	<0.1
Calcium	ug/l	--	mg/L	--	--	--	--	12000
Chromium	ug/l	-- [14]	mg/L	14	--	--	--	<1
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	0.2
Copper	ug/l	5	mg/L	0.005	--	--	--	<1
Iron	ug/l	300	mg/L	0.3	--	--	--	80

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 20-Aug-1998 [4]	GS15 25-May-1999 [4]	GS15 31-Aug-1999 [4]	GS15 05-Apr-2002
Lead	ug/l	--[15]	mg/L	--[15]	--	--	--	<1
Magnesium	ug/l	--	mg/L	--	--	--	--	4000
Manganese	ug/l	--	mg/L	--	--	--	--	120
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	--	--	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	<10
Nickel	ug/l	25	mg/L	0.025	--	--	--	<10
Potassium	ug/l	--	mg/L	--	--	--	--	<1000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	700
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	<0.1
Sodium	ug/l	--	mg/L	--	--	--	--	4000
Strontium	ug/l	--	mg/L	--	--	--	--	61
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	--	--	--	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	<10
Vanadium	ug/l	6	mg/L	0.006	--	--	--	<1
Zinc	ug/l	30[13]	mg/L	0.03[13]	--	--	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	--	--	--	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	--	--	--	9400
Conductivity (Field)	uS/cm	--	uS/cm	--	--	--	--	140
pH (Field)	-	8.5	-	8.5	--	--	--	6.8
Temperature (Field)	deg c	--[8]	deg c	--[8]	--	--	--	1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 01-Nov-2002	GS15 12-May-2003	GS15 26-Aug-2003	GS15 19-Nov-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	107000	102000	79000	69000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	40	<20	30
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	5000	<1000	4000
Chemical Oxygen Demand	ug/l	--	mg/L	--	22000	24000	22000	14000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	48000	37000	48000	30000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8700	7000	8200	7300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	127000	141000	112000	84000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	160	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1130	1010	820	600
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	30	10	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	36000	28000	20000	14000
Total Dissolved Solids	ug/l	--	mg/L	--	280000	237000	215000	173000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	<10	20	20	20
Barium	ug/l	--	mg/L	--	20	20	<10	10
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	90	50	90	70
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	26000	35000	20000	17000
Chromium	ug/l	-- [14]	mg/L	14	<1	2	2	<1
Cobalt	ug/l	0.9	mg/L	0.0009	0.2	0.3	<0.2	<0.2
Copper	ug/l	5	mg/L	0.005	2	2	<1	1
Iron	ug/l	300	mg/L	0.3	170	80	50	140

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 01-Nov-2002	GS15 12-May-2003	GS15 26-Aug-2003	GS15 19-Nov-2003
Lead	ug/l	--[15]	mg/L	--[15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	15000	13000	15000	10000
Manganese	ug/l	--	mg/L	--	122	123	26	20
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	<5	<5
Potassium	ug/l	--	mg/L	--	3000	3000	2000	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	400	100	<100	700
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	30000	18000	22000	15000
Strontium	ug/l	--	mg/L	--	160	162	119	119
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<1	<1	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	2	1	2	<1
Zinc	ug/l	30[13]	mg/L	0.03[13]	<5	<5	<5	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	**6180**	9720	6950	**6390**
Conductivity (Field)	uS/cm	--	uS/cm	--	175	300	410	440
pH (Field)	-	8.5	-	8.5	6.7	8.1	7.9	7.6
Temperature (Field)	deg c	--[8]	deg c	--[8]	4	15	16	0

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 26-May-2004	GS15 28-Aug-2004	GS15 25-Nov-2004	GS15 26-May-2005
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	114000	134000	135000	135000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	40	60	100	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	1600	700	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	34000	44000	25000	21000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	51300	68400	65600	141000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9100	11200	8000	9800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	153200	170600	176400	254000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<200	<200	<200	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<200	<200	<200	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	620	800	820	1010
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**33**	**47**	21	30
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	17400	15200	21200	30000
Total Dissolved Solids	ug/l	--	mg/L	--	236000	282000	316000	504000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	105	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	15	**181**	56	<10
Barium	ug/l	--	mg/L	--	20	26	27	40
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	81	91	88	150
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	33900	36300	42700	59000
Chromium	ug/l	-- [14]	mg/L	14	<5	<5	<5	2
Cobalt	ug/l	0.9	mg/L	0.0009	0.2	0.2	<0.1	0.2
Copper	ug/l	5	mg/L	0.005	1.6	1.6	0.5	1
Iron	ug/l	300	mg/L	0.3	240	**330**	130	170

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 26-May-2004	GS15 28-Aug-2004	GS15 25-Nov-2004	GS15 26-May-2005
Lead	ug/l	--[15]	mg/L	--[15]	<0.5	<0.5	<0.5	<1
Magnesium	ug/l	--	mg/L	--	16600	19400	16900	26000
Manganese	ug/l	--	mg/L	--	74	206	48	210
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<5
Nickel	ug/l	25	mg/L	0.025	1	2	2	<5
Potassium	ug/l	--	mg/L	--	2400	3700	3500	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	260	380	200	600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	23700	32600	31200	53000
Strontium	ug/l	--	mg/L	--	193	210	233	321
Sulfur	ug/l	--	mg/L	--	6700	5100	7600	10000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.05	<0.05	<0.05	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	5	10	<5	<10
Vanadium	ug/l	6	mg/L	0.006	0.7	1	<0.5	2
Zinc	ug/l	30[13]	mg/L	0.03[13]	6	13	7	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	1	1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	9400	7110	8890	8820
Conductivity (Field)	uS/cm	--	uS/cm	--	346	400	495	775
pH (Field)	-	8.5	-	8.5	8.08	7.5	7.2	7.4
Temperature (Field)	deg c	--[8]	deg c	--[8]	19.5	17	1	8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 26-Aug-2005	GS15 15-Nov-2005	GS15 06-Sep-2006	GS15 20-Nov-2006
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	83000	103000	220000	268000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	60	80	230	2250
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	12000	<1000	2000	19000
Chemical Oxygen Demand	ug/l	--	mg/L	--	39000	18000	50000	69000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	26000	20000	63000	65000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	15200	6500	17600	24000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	97000	133000	229000	260000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	660	<100	170
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2920	600	2390	3350
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**90**	**40**	**60**	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	18000	22000	18000	21000
Total Dissolved Solids	ug/l	--	mg/L	--	188000	205000	424000	491000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	60	20	20	<10
Barium	ug/l	--	mg/L	--	10	20	40	40
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	110	70	**380**	**500**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	19000	32000	52000	63000
Chromium	ug/l	-- [14]	mg/L	14	2	1	3	1
Cobalt	ug/l	0.9	mg/L	0.0009	0.2	<0.2	0.3	0.3
Copper	ug/l	5	mg/L	0.005	2	<1	<1	<1
Iron	ug/l	300	mg/L	0.3	210	70	120	**330**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 26-Aug-2005	GS15 15-Nov-2005	GS15 06-Sep-2006	GS15 20-Nov-2006
Lead	ug/l	--[15]	mg/L	--[15]	<1	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	12000	13000	24000	25000
Manganese	ug/l	--	mg/L	--	140	20	110	400
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	<5	5
Potassium	ug/l	--	mg/L	--	3000	3000	9000	11000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	400	400	700	1800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	19000	14000	43000	45000
Strontium	ug/l	--	mg/L	--	129	156	304	344
Sulfur	ug/l	--	mg/L	--	6000	7300	6000	7000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.1	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	5	2	2	1
Zinc	ug/l	30[13]	mg/L	0.03[13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	<1	**6**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	10820	7900	10920	10320
Conductivity (Field)	uS/cm	--	uS/cm	--	250	500	510	415
pH (Field)	-	8.5	-	8.5	6.8	7.3	7.2	7.2
Temperature (Field)	deg c	--[8]	deg c	--[8]	32.6	8.1	10	2

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-May-2007	GS15 23-Aug-2007	GS15 25-Nov-2007	GS15 01-May-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	302000	203000	184000	277000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**266**	<20	<20	20
Ammonia Nitrogen	ug/l	--	mg/L	--	1780	360	<20	2480
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4000	2000	--	3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	50000	29000	--	47000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	68000	67000	74000	63000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	19600	17500	17300	17700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	292000	216000	195000	288000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	--	150
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	9850	2610	--	3010
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**70**	30	**110**	**40**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	26000	32000	--	41000
Total Dissolved Solids	ug/l	--	mg/L	--	525000	430000	425000	511000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	20	20	--	10
Barium	ug/l	--	mg/L	--	40	30	--	50
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	--	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**590**	**900**	**700**	**700**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	69000	42000	37000	74000
Chromium	ug/l	-- [14]	mg/L	14	1	3	--	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	<0.2	--	**1**
Copper	ug/l	5	mg/L	0.005	<1	<1	--	1
Iron	ug/l	300	mg/L	0.3	**310**	40	**420**	**590**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-May-2007	GS15 23-Aug-2007	GS15 25-Nov-2007	GS15 01-May-2008
Lead	ug/l	--[15]	mg/L	--[15]	<1	<1	--	<1
Magnesium	ug/l	--	mg/L	--	29000	27000	25000	25000
Manganese	ug/l	--	mg/L	--	250	80	150	740
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	--	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	--	7
Potassium	ug/l	--	mg/L	--	10000	10000	--	8000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	1700	500	--	3200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	51000	50000	46000	45000
Strontium	ug/l	--	mg/L	--	361	299	--	364
Sulfur	ug/l	--	mg/L	--	8700	10700	--	14000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	0.3	<0.1	--	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	--	<10
Vanadium	ug/l	6	mg/L	0.006	2	4	--	5
Zinc	ug/l	30[13]	mg/L	0.03[13]	<10	<10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	10200	6660	10600	6180
Conductivity (Field)	uS/cm	--	uS/cm	--	445	725	500	550
pH (Field)	-	8.5	-	8.5	**8.6**	8.1	7.8	7.6
Temperature (Field)	deg c	--[8]	deg c	--[8]	21.5	20.9	0.9	11.2

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 11-Aug-2008	GS15 04-Nov-2008	GS15 09-Apr-2009 C-6	GS15 05-Aug-2009 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	188000	192000	223000	168000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	40	1100	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	4000	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	36000	45000	44000	46000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	64000	71000	62000	79000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	17700	16600	15100	19400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	193000	196000	250000	180000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	100	400	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1720	1280	2500	1600
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	400	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	20	**40**	29	25
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	37000	43000	41000	45000
Total Dissolved Solids	ug/l	--	mg/L	--	407000	431000	450000	410000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	10	10	8	17
Barium	ug/l	--	mg/L	--	40	30	40	24
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	<0.5	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**720**	**640**	**550**	**690**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	36000	39000	58000	28000
Chromium	ug/l	-- [14]	mg/L	14	4	2	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.3	0.3	0.6	<0.5
Copper	ug/l	5	mg/L	0.005	1	<1	1	<1
Iron	ug/l	300	mg/L	0.3	90	90	**400**	<100

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 11-Aug-2008	GS15 04-Nov-2008	GS15 09-Apr-2009 C-6	GS15 05-Aug-2009 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	<1	<1	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	25000	24000	23000	26000
Manganese	ug/l	--	mg/L	--	100	30	340	48
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	<5	4	5
Potassium	ug/l	--	mg/L	--	7000	7000	6600	7200
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	500	500	2000	400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	45000	49000	43000	57000
Strontium	ug/l	--	mg/L	--	291	257	290	250
Sulfur	ug/l	--	mg/L	--	12000	14000	14000	12000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.1	<0.1	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<10	<10	7	<5
Vanadium	ug/l	6	mg/L	0.006	4	2	2	1
Zinc	ug/l	30[13]	mg/L	0.03[13]	<10	<10	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	5320	8360	9600	9320
Conductivity (Field)	uS/cm	--	uS/cm	--	600	525	550	644
pH (Field)	-	8.5	-	8.5	**9.2**	**8.7**	7.9	**8.75**
Temperature (Field)	deg c	--[8]	deg c	--[8]	23.7	8.8	7.7	26.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 03-Nov-2009 GS-15	GS15 01-Jun-2010 SW-1	GS15 13-Aug-2010 L-7	GS15 12-Nov-2010 C-3
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	189000	215000	175000	228000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	190	<50	<50	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	4000	3000	5000
Chemical Oxygen Demand	ug/l	--	mg/L	--	50000	64000	70000	60000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	80000	90000	99000	94000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	23100	22400	18400	18600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	210000	230000	180000	260000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1900	1800	1900	2300
Nitrogen, Nitrate-Nitrite	ug/l	--			200	<100	<100	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	28	**51**	**48**	**62**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	45000	38000	32000	35000
Total Dissolved Solids	ug/l	--	mg/L	--	460000	484000	434000	496000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	10	26	19	18
Barium	ug/l	--	mg/L	--	31	38	26	39
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**690**	**770**	**770**	**790**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	40000	51000	31000	50000
Chromium	ug/l	-- [14]	mg/L	14	<5	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	<0.5	<0.5	<0.5	<0.5
Copper	ug/l	5	mg/L	0.005	<1	2	<1	1
Iron	ug/l	300	mg/L	0.3	200	300	200	300

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 03-Nov-2009 GS-15	GS15 01-Jun-2010 SW-1	GS15 13-Aug-2010 L-7	GS15 12-Nov-2010 C-3
Lead	ug/l	--[15]	mg/L	--[15]	<0.5	<0.5	<0.5	<0.5
Magnesium	ug/l	--	mg/L	--	29000	34000	33000	34000
Manganese	ug/l	--	mg/L	--	32	55	160	37
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	2	<1
Nickel	ug/l	25	mg/L	0.025	4	6	5	6
Potassium	ug/l	--	mg/L	--	7600	7400	7900	8400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	620	560	430	670
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	65000	70000	74000	76000
Strontium	ug/l	--	mg/L	--	260	340	240	310
Sulfur	ug/l	--	mg/L	--	15000	13000	11000	13000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	7	8	6	14
Vanadium	ug/l	6	mg/L	0.006	1	1	2	2
Zinc	ug/l	30[13]	mg/L	0.03[13]	<5	5	<5	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	9690	10480	7550	7680
Conductivity (Field)	uS/cm	--	uS/cm	--	656	786	625	746
pH (Field)	-	8.5	-	8.5	8.14	8.40	8.21	7.80
Temperature (Field)	deg c	--[8]	deg c	--[8]	9.0	25.7	26.0	8.0

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 28-Apr-2011 A-3	GS15 24-Aug-2011 C-6	GS15 07-Nov-2011 L-7	GS15 05-Jun-2012 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	273000	158000	204000	220000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	**30**	<20	**32**
Ammonia Nitrogen	ug/l	--	mg/L	--	1100	<50	100	120
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4000	<2000	3000	4000
Chemical Oxygen Demand	ug/l	--	mg/L	--	76000	55000	66000	61000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	80000	86000	96000	86000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	18400	16700	17000	21000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	290000	170000	230000	230000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	10	<10	<10	23
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	3500	1600	1700	2300
Nitrogen, Nitrate-Nitrite	ug/l	--			200	<100	<100	110
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**160**	**39**	**72**	**59**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	36000	32000	42000	36000
Total Dissolved Solids	ug/l	--	mg/L	--	508000	348000	398000	432000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	12	18	13	19
Barium	ug/l	--	mg/L	--	55	21	36	32
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	<0.5	<0.5	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**690**	**750**	**860**	**810**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.10
Calcium	ug/l	--	mg/L	--	74000	23000	41000	47000
Chromium	ug/l	-- [14]	mg/L	14	<5	<5	<5	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	0.9	<0.5	<0.5	0.53
Copper	ug/l	5	mg/L	0.005	2	<1	1	2.3
Iron	ug/l	300	mg/L	0.3	**1000**	<100	200	**330**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 28-Apr-2011 A-3	GS15 24-Aug-2011 C-6	GS15 07-Nov-2011 L-7	GS15 05-Jun-2012 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	0.7	<0.5	<0.5	<0.50
Magnesium	ug/l	--	mg/L	--	29000	30000	31000	34000
Manganese	ug/l	--	mg/L	--	380	66	38	63
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<0.5	<0.5	<0.50
Nickel	ug/l	25	mg/L	0.025	5	4	5	6.1
Potassium	ug/l	--	mg/L	--	9000	7900	8600	8500
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	2000	380	600	790
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.10
Sodium	ug/l	--	mg/L	--	57000	67000	75000	73000
Strontium	ug/l	--	mg/L	--	390	200	320	370
Sulfur	ug/l	--	mg/L	--	13000	10000	15000	13000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.05	<0.05	<0.05	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	36	<5	10	8.8
Vanadium	ug/l	6	mg/L	0.006	2	2.2	1.2	2.4
Zinc	ug/l	30[13]	mg/L	0.03[13]	8	<5	<5	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1	<1	**4**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	12290	13190	10970	11250
Conductivity (Field)	uS/cm	--	uS/cm	--	780	564	718	691
pH (Field)	-	8.5	-	8.5	7.63	**9.30**	8.44	**8.81**
Temperature (Field)	deg c	--[8]	deg c	--[8]	14.5	26.1	10.5	25.0

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-Aug-2012 GS-15	GS15 19-Nov-2012 GS-15	GS15 22-Apr-2013 GS-15	GS15 06-Sep-2013 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	170000	240000	280000	170000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**36**	1.3	**28.31**	<0.18
Ammonia Nitrogen	ug/l	--	mg/L	--	51	98	2900	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	4000	6000	4000
Chemical Oxygen Demand	ug/l	--	mg/L	--	61000	66000	72000	68000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	100000	110000	85000	100000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	23000	20000	21000	22000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	190000	270000	310000	170000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	160	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1900	2000	4600	2500
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	<100	160	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**44**	**73**	**59**	**43**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	34000	39000	40000	32000
Total Dissolved Solids	ug/l	--	mg/L	--	382000	528000	514000	436000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	23	15	8.7	14
Barium	ug/l	--	mg/L	--	14	12	58	17
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	<0.50	<0.50	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**890**	**940**	**720**	**900**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	<0.10	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	23000	49000	73000	23000
Chromium	ug/l	-- [14]	mg/L	14	<5.0	<5.0	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	<0.50	0.64	<0.50
Copper	ug/l	5	mg/L	0.005	<1.0	2.4	1.7	<1.0
Iron	ug/l	300	mg/L	0.3	<100	180	**780**	<100

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-Aug-2012 GS-15	GS15 19-Nov-2012 GS-15	GS15 22-Apr-2013 GS-15	GS15 06-Sep-2013 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	<0.50	<0.50	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	33000	39000	29000	31000
Manganese	ug/l	--	mg/L	--	51	69	640	110
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	4.7	5.1	5.1	4.9
Potassium	ug/l	--	mg/L	--	8100	10000	10000	11000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	260	670	2600	330
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	79000	92000	60000	82000
Strontium	ug/l	--	mg/L	--	230	370	420	240
Sulfur	ug/l	--	mg/L	--	11000	14000	14000	11000
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.050	<0.050	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5.0	5.8	6.2	<5.0
Vanadium	ug/l	6	mg/L	0.006	2.7	1.8	1.3	1.3
Zinc	ug/l	30[13]	mg/L	0.03[13]	6.0	<5.0	6.7	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	**1.1**	<1.0	**3.8**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	9020	11080	**4240**	15970
Conductivity (Field)	uS/cm	--	uS/cm	--	727	829	804	732
pH (Field)	-	8.5	-	8.5	**9.65**	8.04	7.79	6.82
Temperature (Field)	deg c	--[8]	deg c	--[8]	24.6	5.0	8.1	24.8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-Nov-2013 GS-15	GS15 09-May-2014 GS-15	GS15 27-Aug-2014 GS-15	GS15 24-Nov-2014 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	280000	360000	200000	150000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**55.03**	**113.59**	**38.45**	18.28
Ammonia Nitrogen	ug/l	--	mg/L	--	1100	3200	98	460
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	8000	14000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	76000	82000	82000	36000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	120000	100000	100000	59000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	21000	25000	22000	12000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	270000	330000	190000	140000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	210	<100	<100	140
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	30	<10	<10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	3400	6900	3400	1600
Nitrogen, Nitrate-Nitrite	ug/l	--			240	<100	<100	140
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**72**	**150**	**99**	**31**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	36000	38000	31000	17000
Total Dissolved Solids	ug/l	--	mg/L	--	522000	570000	426000	308000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	6.6	15	19	<5.0
Barium	ug/l	--	mg/L	--	48	73	22	26
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<0.50	2	<0.50	<0.50
Boron	ug/l	200[12]	mg/L	0.2[12]	**950**	**850**	**880**	**540**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.10	<5	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	59000	90000	31000	29000
Chromium	ug/l	--[14]	mg/L	14	<5.0	<10	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	<0.50	<20	<0.50	<0.50
Copper	ug/l	5	mg/L	0.005	3.1	<20	<1.0	<1.0
Iron	ug/l	300	mg/L	0.3	**350**	**690**	130	130

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 29-Nov-2013 GS-15	GS15 09-May-2014 GS-15	GS15 27-Aug-2014 GS-15	GS15 24-Nov-2014 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	<0.50	<50	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	39000	32000	29000	17000
Manganese	ug/l	--	mg/L	--	44	760	130	17
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<20	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	6.8	<50	4.5	2.3
Potassium	ug/l	--	mg/L	--	17000	16000	15000	9000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	580	2400	1200	690
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<10	<0.10	<0.10
Sodium	ug/l	--	mg/L	--	97000	77000	81000	48000
Strontium	ug/l	--	mg/L	--	420	500	320	210
Sulfur	ug/l	--	mg/L	--	12000	12000	10000	5800
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.050	--	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	<10	<5.0	6.6
Vanadium	ug/l	6	mg/L	0.006	2.1	<10	1.6	0.74
Zinc	ug/l	30[13]	mg/L	0.03[13]	<5.0	<10	<5.0	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	**2.7**	**2.9**	**2.3**	**4.0**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	--[23]	**3680**	8660	10490
Conductivity (Field)	uS/cm	--	uS/cm	--	927	891	745	479
pH (Field)	-	8.5	-	8.5	**8.78**	8.11	**9.05**	8.50
Temperature (Field)	deg c	--[8]	deg c	--[8]	0.7	15.6	25.2	5.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 14-May-2015 GS-15	GS15 17-Jun-2015 GS-15	GS15 18-Aug-2015 GS-15	GS15 20-Nov-2015 15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	300000	--	180000	250000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**55.95**	<1.98	<2.74	1.45
Ammonia Nitrogen	ug/l	--	mg/L	--	1500	<50	<50	230
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	--	9000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	62000	--	99000	71000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	100000	--	100000	100000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	21000	--	22000	23000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	300000	--	160000	250000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	<100	100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	37	--	<10	18
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	4100	--	1900	1500
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	--	<100	120
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**97**	**180**	**190**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	27000	--	23000	27000
Total Dissolved Solids	ug/l	--	mg/L	--	510000	--	402000	518000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	8	--	16	12
Barium	ug/l	--	mg/L	--	56	--	25	43
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	--	<0.50	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**840**	**790**	**950**	**950**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	--	<0.10	<0.10
Calcium	ug/l	--	mg/L	--	65000	--	23000	43000
Chromium	ug/l	-- [14]	mg/L	14	<5.0	--	<5.0	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	0.54	--	0.52	<0.50
Copper	ug/l	5	mg/L	0.005	<1.0	--	1.2	<1.0
Iron	ug/l	300	mg/L	0.3	190	--	**540**	160

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 14-May-2015 GS-15	GS15 17-Jun-2015 GS-15	GS15 18-Aug-2015 GS-15	GS15 20-Nov-2015 15
Lead	ug/l	--[15]	mg/L	--[15]	<0.50	--	<0.50	<0.50
Magnesium	ug/l	--	mg/L	--	33000	--	30000	32000
Manganese	ug/l	--	mg/L	--	190	--	190	51
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<0.50	--	<0.50	<0.50
Nickel	ug/l	25	mg/L	0.025	4.8	--	5.7	5.5
Potassium	ug/l	--	mg/L	--	13000	--	11000	13000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	290	--	1800	610
Silver	ug/l	0.1	mg/L	0.0001	<0.10	--	**0.21**	<0.10
Sodium	ug/l	--	mg/L	--	79000	--	82000	83000
Strontium	ug/l	--	mg/L	--	430	--	240	340
Sulfur	ug/l	--	mg/L	--	8500	--	7100	7900
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	<0.050	--	<0.050	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	<5.0	--	29	8.4
Vanadium	ug/l	6	mg/L	0.006	1.6	--	2.8	1.2
Zinc	ug/l	30[13]	mg/L	0.03[13]	<5.0	--	<5.0	<5.0
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	<1.0	--	<1.0	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	**3810**	**3670**	**3960**	9630
Conductivity (Field)	uS/cm	--	uS/cm	--	905	1084	928	495
pH (Field)	-	8.5	-	8.5	8.09	8.01	8.10	7.71
Temperature (Field)	deg c	--[8]	deg c	--[8]	16.9	20.2	22.1	4.9

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 15-Jun-2016 GS-15	GS15 23-Aug-2016 GS-15	GS15 13-Oct-2016 GS-15	GS15 01-May-2017 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	302	213	236	339
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	**0.2**	**0.07**	**0.08**	**0.45**
Ammonia Nitrogen	ug/l	--	mg/L	--	1.53	0.11	0.77	4.49
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	12	5	8	5
Chemical Oxygen Demand	ug/l	--	mg/L	--	103	106	124	72
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	99.8	111	117	76
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	895	785	846	970
Dissolved Organic Carbon	ug/l	--	mg/L	--	18.5	19.5	19.9	18.1
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	237	188	199	352
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.1	< 0.1	< 0.1	0.33
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.1	< 0.1	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	4.56	2.9	4.84	6.82
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.11**	**0.09**	**0.24**	**0.08**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	29	29	34	44
Total Dissolved Solids	ug/l	--	mg/L	--	--	--	--	536
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	0.16	0.07	0.13	**0.09**
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	0.03	0.03	0.03	0.04
Barium	ug/l	--	mg/L	--	0.052	0.044	0.036	0.064
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**0.882**	**0.956**	**0.975**	**0.916**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	0.00011	0.00006	0.00003	0.000099
Calcium	ug/l	--	mg/L	--	49.3	22.4	26.1	83
Chromium	ug/l	-- [14]	mg/L	14	< 0.002	< 0.002	< 0.002	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	0.0007	0.0004	0.0004	0.0009
Copper	ug/l	5	mg/L	0.005	**0.0051**	0.0041	0.0012	0.0044
Iron	ug/l	300	mg/L	0.3	**0.344**	0.13	0.211	0.209

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 15-Jun-2016 GS-15	GS15 23-Aug-2016 GS-15	GS15 13-Oct-2016 GS-15	GS15 01-May-2017 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	0.0014	0.00064	0.00034	0.00038
Magnesium	ug/l	--	mg/L	--	33.4	32.1	32.4	35.1
Manganese	ug/l	--	mg/L	--	0.158	0.102	0.126	0.238
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0003	0.0004	0.0006	0.0004
Nickel	ug/l	25	mg/L	0.025	0.0079	0.0078	0.0047	0.0089
Potassium	ug/l	--	mg/L	--	13.1	12.4	13.6	12.2
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	0.84	1.12	0.21	1.63
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	82.6	86.1	90.7	76.1
Strontium	ug/l	--	mg/L	--	0.46	0.3	0.317	0.527
Sulfur	ug/l	--	mg/L	--	9.6	10.2	10.9	18.4
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.008	< 0.005	< 0.005	< 0.005
Vanadium	ug/l	6	mg/L	0.006	0.0029	0.0044	0.0039	0.001
Zinc	ug/l	30[13]	mg/L	0.03[13]	0.009	0.013	< 0.005	**0.057**
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	17.53	11.46	10.58	10.34
Conductivity (Field)	uS/cm	--	uS/cm	--	805	785	813	922
pH (Field)	-	8.5	-	8.5	8.4	**9.5**	**8.9**	8.3
Temperature (Field)	deg c	--[8]	deg c	--[8]	26	22.1	13.9	12.2

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 20-Sep-2017 GS-15	GS15 06-Nov-2017 GS-15	GS15 30-Apr-2018 GS-15	GS15 20-Aug-2018 GS-15
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	193	223	306	169
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	**0.05**	**0.42**	**0.03**
Ammonia Nitrogen	ug/l	--	mg/L	--	0.03	0.45	3.41	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4	< 3	<3	4
Chemical Oxygen Demand	ug/l	--	mg/L	--	61	69	100	92
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	70.6	66.9	84.5	93.9
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	668	709	861	661
Dissolved Organic Carbon	ug/l	--	mg/L	--	18.4	16.7	17.5	20.3
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	207	226	286	160
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	< 0.1	0.31	0.36	< 0.05
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.05	< 0.05	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2.6	2.5	5.4	2.3
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.06**	**0.06**	**0.07**	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	23	23	30	23
Total Dissolved Solids	ug/l	--	mg/L	--	368	378	472	348
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	**0.1**	**0.09**	0.06	**0.04**
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	0.07	0.04	0.05	**0.03**
Barium	ug/l	--	mg/L	--	0.037	0.04	0.037	0.008
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**0.85**	**0.793**	**0.729**	**0.819**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	< 0.000014	0.000038	<0.000015	<0.000015
Calcium	ug/l	--	mg/L	--	32.7	45.3	69.4	15.7
Chromium	ug/l	-- [14]	mg/L	14	< 0.001	0.001	0.001	<0.001
Cobalt	ug/l	0.9	mg/L	0.0009	0.0003	0.0003	0.0006	0.0003
Copper	ug/l	5	mg/L	0.005	0.0009	0.0039	0.0011	0.0003
Iron	ug/l	300	mg/L	0.3	0.132	0.128	0.086	0.035

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 20-Sep-2017 GS-15	GS15 06-Nov-2017 GS-15	GS15 30-Apr-2018 GS-15	GS15 20-Aug-2018 GS-15
Lead	ug/l	--[15]	mg/L	--[15]	0.00004	0.00038	0.00003	0.00005
Magnesium	ug/l	--	mg/L	--	29.1	28.1	27.4	27.9
Manganese	ug/l	--	mg/L	--	0.077	0.073	0.202	0.116
Mercury, dissolved	ug/l	0.2[16]	mg/L	0.0002[16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0002	0.0003	<0.0001	0.0002
Nickel	ug/l	25	mg/L	0.025	0.0043	0.0062	0.0056	0.0037
Potassium	ug/l	--	mg/L	--	10.3	11.7	11	9.9
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	0.28	0.79	1.33	1.17
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	< 0.0001
Sodium	ug/l	--	mg/L	--	69.5	67.6	61.5	75
Strontium	ug/l	--	mg/L	--	0.333	0.367	0.43	0.203
Sulfur	ug/l	--	mg/L	--	8.2	9.3	9.1	7.5
Thallium	ug/l	0.3[17]	mg/L	0.0003[17]	< 0.00005	< 0.00005	< 0.000021	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	< 0.005	0.005	0.005	<0.005
Vanadium	ug/l	6	mg/L	0.006	0.0015	0.0003	0.0012	0.0024
Zinc	ug/l	30[13]	mg/L	0.03[13]	**0.067**	0.008	0.006	0.021
Phenols								
Phenolics, Total Recoverable	ug/l	1[18]	mg/L	0.001[18]	< 0.001	< 0.001	< 0.001	0.003
Field Measurements								
Dissolved Oxygen (Field)	ug/l	--[6]	mg/L	--[6]	15.88	6.64	9.3	12.42
Conductivity (Field)	uS/cm	--	uS/cm	--	596	645	737	496
pH (Field)	-	8.5	-	8.5	**8.9**	8.4	8.2	9.5
Temperature (Field)	deg c	--[8]	deg c	--[8]	26.7	9.2	10.4	29.8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 05-Nov-2018 GS-15
General Chemistry					
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	224
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	9
Chemical Oxygen Demand	ug/l	--	mg/L	--	80
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	94.1
Color	color unit	--	color unit	--	--
Conductivity	umho/cm	--	umho/cm	--	752
Dissolved Organic Carbon	ug/l	--	mg/L	--	17.2
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	207
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.1
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1.9
Nitrogen, Nitrate-Nitrite	ug/l	--			--
Nitrogen, Organic	ug/l	--	mg/L	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.05**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	27
Total Dissolved Solids	ug/l	--	mg/L	--	404
Total Organic Carbon	ug/l	--	mg/L	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--
Metals					
Aluminum	ug/l	--[10]	mg/L	0.075	**0.04**
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	0.1
Barium	ug/l	--	mg/L	--	0.045
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1[11]	< 0.002
Boron	ug/l	200[12]	mg/L	0.2[12]	**0.766**
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000021
Calcium	ug/l	--	mg/L	--	36.8
Chromium	ug/l	--[14]	mg/L	14	<0.001
Cobalt	ug/l	0.9	mg/L	0.0009	0.0004
Copper	ug/l	5	mg/L	0.005	0.0062
Iron	ug/l	300	mg/L	0.3	0.163

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS15 05-Nov-2018 GS-15
Lead	ug/l	-- [15]	mg/L	-- [15]	0.00031
Magnesium	ug/l	--	mg/L	--	28.1
Manganese	ug/l	--	mg/L	--	0.05
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0003
Nickel	ug/l	25	mg/L	0.025	0.0043
Potassium	ug/l	--	mg/L	--	11
Selenium	ug/l	100	mg/L	0.1	--
Silicon	ug/l	--	mg/L	--	0.32
Silver	ug/l	0.1	mg/L	0.0001	< 0.0001
Sodium	ug/l	--	mg/L	--	72.5
Strontium	ug/l	--	mg/L	--	0.325
Sulfur	ug/l	--	mg/L	--	8.3
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005
Tin	ug/l	--	mg/L	--	--
Titanium	ug/l	--	mg/L	--	0.005
Vanadium	ug/l	6	mg/L	0.006	0.0013
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.012
Phenols					
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	0.002
Field Measurements					
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11.6
Conductivity (Field)	uS/cm	--	uS/cm	--	563
pH (Field)	-	8.5	-	8.5	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Sep-1992	GS17 28-Nov-1992	GS17 04-May-1993 [4]	GS17 29-Aug-1993 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	160000	82000	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	130	60	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	3000	1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	38000	41000	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	49000	22000	--	--
Color	color unit	--	color unit	--	41	211	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	164000	90000	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	180	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	480	500	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	350	440	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**110**	**220**	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<3000	12000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	280000	158000	--	--
Total Organic Carbon	ug/l	--	mg/L	--	12000	15000	--	--
Total Suspended Solids	ug/l	--	mg/L	--	4000	8000	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	2.3	11	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**120**	**870**	--	--
Barium	ug/l	--	mg/L	--	30	30	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	40	10	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	<0.15	--	--
Calcium	ug/l	--	mg/L	--	41000	23000	--	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	30	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	<10	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	<5	--	--
Iron	ug/l	300	mg/L	0.3	**1300**	**1080**	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Sep-1992	GS17 28-Nov-1992	GS17 04-May-1993 [4]	GS17 29-Aug-1993 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	2	<2	--	--
Magnesium	ug/l	--	mg/L	--	15000	8000	--	--
Manganese	ug/l	--	mg/L	--	690	60	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	<10	--	--
Potassium	ug/l	--	mg/L	--	5000	3000	--	--
Selenium	ug/l	100	mg/L	0.1	<1	<1	--	--
Silicon	ug/l	--	mg/L	--	6600	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	--
Sodium	ug/l	--	mg/L	--	28000	13000	--	--
Strontium	ug/l	--	mg/L	--	160	90	--	--
Sulfur	ug/l	--	mg/L	--	<3000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<50	--	--	--
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	**10**	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**90**	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**2**	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**1600**	12100	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	470	210	--	--
pH (Field)	-	8.5	-	8.5	7	7	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	8	1	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 11-Nov-1993 [4]	GS17 04-Jun-1994	GS17 07-Sep-1994	GS17 24-Nov-1994 [4]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	--	70000	182000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	150	30	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	2000	1000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	40000	20000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	14000	58000	--
Color	color unit	--	color unit	--	--	165	26	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	12000	7500	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	93000	233000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	**170**	**50**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	110000	320000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	6	4.3	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	--	**180**	<30	--
Barium	ug/l	--	mg/L	--	--	10	20	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<10	<10	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	<10	20	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.15	<0.15	--
Calcium	ug/l	--	mg/L	--	--	24000	67000	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	--	<10	<10	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	<0.4	--
Copper	ug/l	5	mg/L	0.005	--	<5	<5	--
Iron	ug/l	300	mg/L	0.3	--	**830**	**580**	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 11-Nov-1993 [4]	GS17 04-Jun-1994	GS17 07-Sep-1994	GS17 24-Nov-1994 [4]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	<2	--
Magnesium	ug/l	--	mg/L	--	--	8000	16000	--
Manganese	ug/l	--	mg/L	--	--	160	210	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	<0.2	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	<10	--
Nickel	ug/l	25	mg/L	0.025	--	<10	<10	--
Potassium	ug/l	--	mg/L	--	--	<1000	3000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	3900	2600	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	**0.4**	--
Sodium	ug/l	--	mg/L	--	--	6000	25000	--
Strontium	ug/l	--	mg/L	--	--	70	177	--
Sulfur	ug/l	--	mg/L	--	--	4000	7000	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<5	<5	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	<10	<10	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	<7	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	20	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	11400	9500	--
Conductivity (Field)	uS/cm	--	uS/cm	--	--	155	500	--
pH (Field)	-	8.5	-	8.5	--	6.5	7.8	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	14	14	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 28-May-1995	GS17 11-Sep-1995 [3]	GS17 07-Nov-1995	GS17 17-Jul-1996
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	85000	--	--	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	60	--	--	100
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	--	--	<3000
Chemical Oxygen Demand	ug/l	--	mg/L	--	26000	--	--	27000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	15000	--	22000	19000
Color	color unit	--	color unit	--	105	--	--	43
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12800	--	--	10600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	95000	--	--	90000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**80**	--	**120**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	128000	--	--	152000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**550**	--	--	**440**
Barium	ug/l	--	mg/L	--	20	--	--	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	--	<10
Boron	ug/l	200 [12]	mg/L	0.2 [12]	10	--	--	<10
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	--	--	<0.15
Calcium	ug/l	--	mg/L	--	25000	--	--	23000
Chromium	ug/l	-- [14]	mg/L	-- [14]	<10	--	--	<10
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	--	--	0.5
Copper	ug/l	5	mg/L	0.005	<5	--	--	<5
Iron	ug/l	300	mg/L	0.3	**1370**	--	**1010**	**960**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 28-May-1995	GS17 11-Sep-1995 [3]	GS17 07-Nov-1995	GS17 17-Jul-1996
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	--	<2
Magnesium	ug/l	--	mg/L	--	8000	--	--	8000
Manganese	ug/l	--	mg/L	--	130	--	--	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	--	**0.7**
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	<10
Nickel	ug/l	25	mg/L	0.025	<10	--	--	<10
Potassium	ug/l	--	mg/L	--	1000	--	--	3000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5400	--	--	5700
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	<0.1
Sodium	ug/l	--	mg/L	--	11000	--	--	13000
Strontium	ug/l	--	mg/L	--	85	--	--	100
Sulfur	ug/l	--	mg/L	--	3000	--	--	6000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<10	--	--	<5
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	30	--	--	20
Vanadium	ug/l	6	mg/L	0.006	**7**	--	--	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	1	--	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11400	--	--	8700
Conductivity (Field)	uS/cm	--	uS/cm	--	210	--	255	170
pH (Field)	-	8.5	-	8.5	7	--	8.4	6.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	13.5	--	6	21

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 22-Nov-1996	GS17 10-Jun-1997	GS17 09-Sep-1997	GS17 06-Apr-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	73000	120000	108000	40000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	410	<20	50	60
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	3000	3000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	32000	29000	28000	31000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	15000	11000	11000	33000
Color	color unit	--	color unit	--	54	26	32	71
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11200	9900	11300	11000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	80000	117000	117000	53000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	300
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	590
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**230**	**110**	**120**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	11000
Total Dissolved Solids	ug/l	--	mg/L	--	140000	172000	136000	92000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**230**	**120**	**150**	**370**
Barium	ug/l	--	mg/L	--	20	30	30	10
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	10	<10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	30	<10	<10	40
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	19000	32000	32000	13000
Chromium	ug/l	--[14]	mg/L	--[14]	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	**2.4**	0.7	0.6	<0.4
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	**1030**	**1040**	**900**	**400**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 22-Nov-1996	GS17 10-Jun-1997	GS17 09-Sep-1997	GS17 06-Apr-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	<2	<2	<2
Magnesium	ug/l	--	mg/L	--	8000	9000	9000	5000
Manganese	ug/l	--	mg/L	--	110	170	290	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	**2.2**	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<30	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	1000	2000	3000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6000	5100	3300	3100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	9000	10000	7000	6000
Strontium	ug/l	--	mg/L	--	75	117	109	51
Sulfur	ug/l	--	mg/L	--	<3000	4000	5000	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	<50	--	<50	<50
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	30	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12100	10200	**3200**	9800
Conductivity (Field)	uS/cm	--	uS/cm	--	130	280	220	110
pH (Field)	-	8.5	-	8.5	6.9	7.3	7	7.01
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	0.5	20	21	8.5

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 09-Jun-1998	GS17 25-Jun-1998	GS17 17-Jul-1998	GS17 20-Aug-1998
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	109000	61000	73000	80000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	130	20	450	90
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	6000	<1000	1000	7000
Chemical Oxygen Demand	ug/l	--	mg/L	--	34000	61000	53000	43000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	29000	11000	16000	16000
Color	color unit	--	color unit	--	76	112	106	36
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14000	18000	18000	13000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	115000	72000	89000	88000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1050	1760	1270	1440
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**200**	**280**	**260**	**400**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	4000	6000	5000	6000
Total Dissolved Solids	ug/l	--	mg/L	--	320000	104000	128000	140000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**210**	**270**	**210**	**210**
Barium	ug/l	--	mg/L	--	20	<10	<10	30
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<10	<10	<10	<10
Boron	ug/l	200[12]	mg/L	0.2[12]	<10	<10	<10	<10
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	mg/L	--	31000	19000	24000	17000
Chromium	ug/l	--[14]	mg/L	--[14]	<10	<10	<10	<10
Cobalt	ug/l	0.9	mg/L	0.0009	**1**	**1.6**	<0.4	**1.3**
Copper	ug/l	5	mg/L	0.005	<5	<5	<5	<5
Iron	ug/l	300	mg/L	0.3	**1990**	**1920**	**2030**	**6660**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 09-Jun-1998	GS17 25-Jun-1998	GS17 17-Jul-1998	GS17 20-Aug-1998
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	6	<2	<2
Magnesium	ug/l	--	mg/L	--	9000	6000	7000	5000
Manganese	ug/l	--	mg/L	--	310	420	290	700
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	mg/L	0.04	<10	<10	<10	<10
Nickel	ug/l	25	mg/L	0.025	<10	<10	<10	<10
Potassium	ug/l	--	mg/L	--	4000	3000	<1000	5000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3000	5300	5300	5600
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	16000	7000	12000	9000
Strontium	ug/l	--	mg/L	--	112	72	64	84
Sulfur	ug/l	--	mg/L	--	<3000	3000	<3000	<3000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	<5	<5	<5
Tin	ug/l	--	mg/L	--	<50	<50	<50	<50
Titanium	ug/l	--	mg/L	--	<10	<10	<10	<10
Vanadium	ug/l	6	mg/L	0.006	<7	<7	<7	<7
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	**5**
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	6100	**1800**	5200	**4500**
Conductivity (Field)	uS/cm	--	uS/cm	--	210	170	240	180
pH (Field)	-	8.5	-	8.5	7.48	6.83	6.6	6.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	27	25.5	24	19

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-Sep-1998	GS17 20-Oct-1998	GS17 20-Dec-1998	GS17 23-Apr-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	72000	78000	89000	64000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	70	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	4000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	26000	37000	15000	15000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	25000	23000	20000	13000
Color	color unit	--	color unit	--	--	112	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12000	16000	10400	9200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	95000	93000	98000	70000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<100	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	900	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**140**	**230**	**110**	**150**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	9000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	172000	152000	172000	64000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**200**	**290**	**400**	**680**
Barium	ug/l	--	mg/L	--	--	10	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<10	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	<10	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.15	--	--
Calcium	ug/l	--	mg/L	--	--	24000	--	--
Chromium	ug/l	--[14]	mg/L	--[14]	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.4	--	--
Copper	ug/l	5	mg/L	0.005	--	<5	--	--
Iron	ug/l	300	mg/L	0.3	**1090**	**2050**	**870**	**360**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-Sep-1998	GS17 20-Oct-1998	GS17 20-Dec-1998	GS17 23-Apr-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	--	--
Magnesium	ug/l	--	mg/L	--	--	8000	--	--
Manganese	ug/l	--	mg/L	--	140	120	130	<10
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.2	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	**50**	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	3000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	7200	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	16000	14000	13000	8000
Strontium	ug/l	--	mg/L	--	83	84	94	62
Sulfur	ug/l	--	mg/L	--	--	3000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<5	--	--
Tin	ug/l	--	mg/L	--	--	<50	--	--
Titanium	ug/l	--	mg/L	--	--	80	--	--
Vanadium	ug/l	6	mg/L	0.006	--	<7	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**2300**	7000	10600	11000
Conductivity (Field)	uS/cm	--	uS/cm	--	210	210	190	120
pH (Field)	-	8.5	-	8.5	6.11	7.29	6.9	7.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11	10	-2	11.5

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-May-1999	GS17 25-Jun-1999	GS17 29-Jul-1999	GS17 31-Aug-1999 [3]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	101000	333000	129000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	30	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	6000	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	34000	88000	30000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	21000	22000	58000	--
Color	color unit	--	color unit	--	43	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14000	32800	16800	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	100000	336000	162000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**180**	**490**	**240**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	152000	396000	256000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**750**	50	50	--
Barium	ug/l	--	mg/L	--	20	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<10	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	10	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.15	--	--	--
Calcium	ug/l	--	mg/L	--	27000	--	--	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.8	--	--	--
Copper	ug/l	5	mg/L	0.005	<5	--	--	--
Iron	ug/l	300	mg/L	0.3	**430**	**2960**	**2270**	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-May-1999	GS17 25-Jun-1999	GS17 29-Jul-1999	GS17 31-Aug-1999 [3]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<2	--	--	--
Magnesium	ug/l	--	mg/L	--	8000	--	--	--
Manganese	ug/l	--	mg/L	--	180	4190	460	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.2	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	2000	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	2800	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	14000	19000	33000	--
Strontium	ug/l	--	mg/L	--	95	269	147	--
Sulfur	ug/l	--	mg/L	--	<3000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<5	--	--	--
Tin	ug/l	--	mg/L	--	<50	--	--	--
Titanium	ug/l	--	mg/L	--	<10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<7	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7700	**4700**	8700	--
Conductivity (Field)	uS/cm	--	uS/cm	--	220	665	490	--
pH (Field)	-	8.5	-	8.5	6.6	6.9	7.1	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15	19	29	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 30-Sep-1999	GS17 27-Oct-1999	GS17 29-Nov-1999	GS17 21-Dec-1999
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	76000	80000	48000	87000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	46000	41000	48000	22000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	22000	23000	17000	33000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	15700	14700	15200	11700
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	102000	100000	77000	107000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**500**	**80**	**120**	**470**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	176000	160000	120000	172000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**1090**	**350**	**470**	**430**
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	27000	21000	28000
Chromium	ug/l	--[14]	mg/L	--[14]	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1840**	**1160**	**840**	**730**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 30-Sep-1999	GS17 27-Oct-1999	GS17 29-Nov-1999	GS17 21-Dec-1999
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	8000	6000	9000
Manganese	ug/l	--	mg/L	--	70	60	80	170
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	14000	15000	10000	18000
Strontium	ug/l	--	mg/L	--	101	91	79	101
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	--	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	280	250	191	200
pH (Field)	-	8.5	-	8.5	7.14	7.46	6.98	7.43
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	13	8	2	0

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 28-Apr-2000	GS17 01-Jun-2000	GS17 29-Jun-2000	GS17 27-Jul-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	64000	69000	63000	121000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	30	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	30000	38000	66000	23000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	8000	25000	11000	27000
Color	color unit	--	color unit	--	--	100	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	12000	13500	16400	8800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	72000	72000	77000	120000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**50**	**50**	**60**	**60**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	100000	116000	96000	188000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**250**	**230**	**260**	**80**
Barium	ug/l	--	mg/L	--	--	70	--	--
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<2	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	<10	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.1	--	--
Calcium	ug/l	--	mg/L	--	19000	19000	21000	33000
Chromium	ug/l	--[14]	mg/L	--[14]	--	<10	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.4	--	--
Copper	ug/l	5	mg/L	0.005	--	<10	--	--
Iron	ug/l	300	mg/L	0.3	**910**	**1080**	**1180**	**390**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 28-Apr-2000	GS17 01-Jun-2000	GS17 29-Jun-2000	GS17 27-Jul-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<2	--	--
Magnesium	ug/l	--	mg/L	--	6000	6000	6000	9000
Manganese	ug/l	--	mg/L	--	100	80	80	60
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	--
Nickel	ug/l	25	mg/L	0.025	--	<10	--	--
Potassium	ug/l	--	mg/L	--	--	1000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	4750	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	--
Sodium	ug/l	--	mg/L	--	8000	11000	6000	19000
Strontium	ug/l	--	mg/L	--	57	64	71	110
Sulfur	ug/l	--	mg/L	--	--	<1000	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<2	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	10	--	--
Vanadium	ug/l	6	mg/L	0.006	--	<2	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	20	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11350	**3100**	8400	7600
Conductivity (Field)	uS/cm	--	uS/cm	--	209	250	220	281
pH (Field)	-	8.5	-	8.5	7.02	6.79	6.4	6.51
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11.7	8	19	19.8

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 18-Aug-2000	GS17 27-Sep-2000	GS17 30-Oct-2000	GS17 01-Dec-2000
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	102000	87000	98000	66000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	40	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	33000	27000	26000	36000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	29000	19000	16000	17000
Color	color unit	--	color unit	--	73	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	13700	10400	1900	14800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	103000	100000	102000	88000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**120**	**80**	**110**	**90**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	176000	112000	180000	112000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**540**	**300**	**590**	**280**
Barium	ug/l	--	mg/L	--	20	--	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<2	--	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	--	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	--	--	--
Calcium	ug/l	--	mg/L	--	28000	27000	26000	22000
Chromium	ug/l	-- [14]	mg/L	-- [14]	<10	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.7	--	--	--
Copper	ug/l	5	mg/L	0.005	1	--	--	--
Iron	ug/l	300	mg/L	0.3	**950**	**610**	**1200**	**1310**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 18-Aug-2000	GS17 27-Sep-2000	GS17 30-Oct-2000	GS17 01-Dec-2000
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	--	--	--
Magnesium	ug/l	--	mg/L	--	8000	8000	9000	8000
Manganese	ug/l	--	mg/L	--	30	80	90	130
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	<10	--	--	--
Nickel	ug/l	25	mg/L	0.025	<10	--	--	--
Potassium	ug/l	--	mg/L	--	2000	--	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	6300	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	--	--
Sodium	ug/l	--	mg/L	--	20000	14000	11000	8000
Strontium	ug/l	--	mg/L	--	90	91	85	80
Sulfur	ug/l	--	mg/L	--	3000	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	10	--	--	--
Vanadium	ug/l	6	mg/L	0.006	<1	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	20	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9500	11390	12080	13800
Conductivity (Field)	uS/cm	--	uS/cm	--	283	244	214	270
pH (Field)	-	8.5	-	8.5	7.7	7.11	7.21	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17.4	11.2	6.7	1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 21-Dec-2000	GS17 30-May-2001	GS17 10-Aug-2001 [3]	GS17 05-Apr-2002
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	74000	90000	--	46000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	40	--	100
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	1000	--	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	22000	22000	--	25000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	15000	33000	--	17000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9900	12900	--	9100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	75000	106000	--	58000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	280	--	400
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	660	--	590
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**110**	**220**	--	**250**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	12000	--	16000
Total Dissolved Solids	ug/l	--	mg/L	--	180000	236000	--	118000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**90**	60	--	**130**
Barium	ug/l	--	mg/L	--	--	20	--	10
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	--	<2	--	<2
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	<10	--	<50
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	--	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	20000	26000	--	15000
Chromium	ug/l	-- [14]	mg/L	-- [14]	--	<1	--	<1
Cobalt	ug/l	0.9	mg/L	0.0009	--	<0.2	--	0.2
Copper	ug/l	5	mg/L	0.005	--	<1	--	1
Iron	ug/l	300	mg/L	0.3	**1270**	**990**	--	140

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 21-Dec-2000	GS17 30-May-2001	GS17 10-Aug-2001 [3]	GS17 05-Apr-2002
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	--	<1
Magnesium	ug/l	--	mg/L	--	6000	10000	--	5000
Manganese	ug/l	--	mg/L	--	160	120	--	40
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<10	--	<10
Nickel	ug/l	25	mg/L	0.025	--	<10	--	<10
Potassium	ug/l	--	mg/L	--	--	2000	--	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	5410	--	4000
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	9000	19000	--	13000
Strontium	ug/l	--	mg/L	--	68	94	--	55
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<1	--	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	20	--	<10
Vanadium	ug/l	6	mg/L	0.006	--	<1	--	1
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	10800	--	13340
Conductivity (Field)	uS/cm	--	uS/cm	--	12	712	--	130
pH (Field)	-	8.5	-	8.5	7.7	7.18	--	6.8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	0	9	--	3

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Aug-2002 [3]	GS17 01-Nov-2002	GS17 12-May-2003	GS17 26-Aug-2003
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	--	176000	60000	167000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	--	<20	<20	20
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<1000	<1000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	23000	41000	20000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	--	119000	30000	45000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	--	8900	13500	9100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	--	246000	77000	183000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	<100	<100	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	730	760	860
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	**390**	**170**	**120**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	63000	29000	16000
Total Dissolved Solids	ug/l	--	mg/L	--	--	554000	159000	300000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	**650**	**150**	<10
Barium	ug/l	--	mg/L	--	--	50	20	20
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	--	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	--	<50	<50	<50
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	--	64000	21000	50000
Chromium	ug/l	--[14]	mg/L	--[14]	--	2	3	6
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.5	0.7	0.3
Copper	ug/l	5	mg/L	0.005	--	**6**	3	<1
Iron	ug/l	300	mg/L	0.3	--	**550**	**930**	**330**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Aug-2002 [3]	GS17 01-Nov-2002	GS17 12-May-2003	GS17 26-Aug-2003
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	--	21000	6000	14000
Manganese	ug/l	--	mg/L	--	--	20	60	181
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	--	<5	<5	<5
Potassium	ug/l	--	mg/L	--	--	18000	2000	4000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	4500	5000	5300
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	--	71000	20000	24000
Strontium	ug/l	--	mg/L	--	--	187	77	143
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<1	<1	<1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	30	40	<10
Vanadium	ug/l	6	mg/L	0.006	--	2	3	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	<5	8	<5
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	--	**4720**	9140	**5440**
Conductivity (Field)	uS/cm	--	uS/cm	--	--	170	130	110
pH (Field)	-	8.5	-	8.5	--	6.9	7.6	7.4
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	--	3	12	16

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 19-Nov-2003	GS17 26-May-2004	GS17 28-Aug-2004	GS17 25-Nov-2004
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	60000	76000	124000	64000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	180	90	80	260
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	2000	600	1000	2700
Chemical Oxygen Demand	ug/l	--	mg/L	--	31000	26000	51000	91000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	20000	21800	21800	35900
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11900	12600	12800	19100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	71000	84500	136000	83900
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	240	<200	<200	2300
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<200	<200	<200
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	750	630	730	2790
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**380**	**191**	**105**	**829**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	23000	5900	10100	14400
Total Dissolved Solids	ug/l	--	mg/L	--	140000	184000	190000	254000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--[9]	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	943	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**170**	**176**	**247**	**4450**
Barium	ug/l	--	mg/L	--	40	22	26	61
Beryllium	ug/l	11-1100[11]	mg/L	0.011-1.1[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	mg/L	0.2[12]	10	12	12	<5
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	17000	22500	38400	21000
Chromium	ug/l	--[14]	mg/L	--[14]	3	<5	<5	10
Cobalt	ug/l	0.9	mg/L	0.0009	0.8	0.6	0.3	**2.1**
Copper	ug/l	5	mg/L	0.005	3	3.1	3.4	**10.4**
Iron	ug/l	300	mg/L	0.3	**1090**	**1650**	**690**	**4860**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 19-Nov-2003	GS17 26-May-2004	GS17 28-Aug-2004	GS17 25-Nov-2004
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	0.7	<0.5	1.8
Magnesium	ug/l	--	mg/L	--	7000	6900	9740	7640
Manganese	ug/l	--	mg/L	--	50	79	235	93
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	<5	2	1	6
Potassium	ug/l	--	mg/L	--	5000	1800	2800	13400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5800	5550	3820	11100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	14000	14700	13600	15500
Strontium	ug/l	--	mg/L	--	80	75	117	88
Sulfur	ug/l	--	mg/L	--	--	2700	3500	5300
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<1	<0.05	<0.05	0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	43	12	239
Vanadium	ug/l	6	mg/L	0.006	3	3.3	1.6	**8.5**
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	10	20	12	27
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	1	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**5980**	8810	6410	8110
Conductivity (Field)	uS/cm	--	uS/cm	--	140	186	185	660
pH (Field)	-	8.5	-	8.5	7.2	8.02	7.3	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1	16.1	18	1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-May-2005	GS17 26-Aug-2005 [3]	GS17 15-Nov-2005	GS17 01-Jun-2006
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	78000	--	75000	110000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	70	--	<20	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	--	<1000	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	26000	--	41000	31000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	22000	--	34000	32000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10900	--	15100	13400
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	86000	--	102000	80000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	110	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	650	--	580	510
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**90**	--	**190**	**170**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	9000	--	14000	7000
Total Dissolved Solids	ug/l	--	mg/L	--	154000	--	190000	213000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	70	--	**150**	**470**
Barium	ug/l	--	mg/L	--	10	--	20	20
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	--	<1	<1
Boron	ug/l	200 [12]	mg/L	0.2 [12]	10	--	<10	70
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	23000	--	26000	22000
Chromium	ug/l	-- [14]	mg/L	-- [14]	1	--	3	3
Cobalt	ug/l	0.9	mg/L	0.0009	0.2	--	0.4	0.4
Copper	ug/l	5	mg/L	0.005	2	--	2	2
Iron	ug/l	300	mg/L	0.3	**810**	--	**820**	**1060**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 26-May-2005	GS17 26-Aug-2005 [3]	GS17 15-Nov-2005	GS17 01-Jun-2006
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	--	<1	<1
Magnesium	ug/l	--	mg/L	--	7000	--	9000	6000
Manganese	ug/l	--	mg/L	--	40	--	40	90
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	--	<5	<5
Nickel	ug/l	25	mg/L	0.025	<5	--	<5	<5
Potassium	ug/l	--	mg/L	--	1000	--	2000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	3900	--	8100	4400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	14000	--	21000	33000
Strontium	ug/l	--	mg/L	--	77	--	83	80
Sulfur	ug/l	--	mg/L	--	3000	--	4700	2300
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	--	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	--	30	20
Vanadium	ug/l	6	mg/L	0.006	2	--	3	3
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	--	**50**	10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8710	--	6900	--
Conductivity (Field)	uS/cm	--	uS/cm	--	237	--	130	350
pH (Field)	-	8.5	-	8.5	7.2	--	7.4	8.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9	--	8.2	21

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Sep-2006	GS17 20-Nov-2006	GS17 29-May-2007 [3]	GS17 23-Aug-2007 [3]
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	80000	63000	--	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	50	50	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	52000	33000	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	26000	12000	--	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	19900	13900	--	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	75000	65000	--	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	150	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	790	570	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**130**	**140**	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	8000	7000	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	171000	112000	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**400**	**220**	--	--
Barium	ug/l	--	mg/L	--	20	20	--	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<1	<1	--	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	50	20	--	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	--	--
Calcium	ug/l	--	mg/L	--	20000	16000	--	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	3	1	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.4	0.4	--	--
Copper	ug/l	5	mg/L	0.005	2	1	--	--
Iron	ug/l	300	mg/L	0.3	**1290**	**860**	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 06-Sep-2006	GS17 20-Nov-2006	GS17 29-May-2007 [3]	GS17 23-Aug-2007 [3]
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	--	--
Magnesium	ug/l	--	mg/L	--	6000	6000	--	--
Manganese	ug/l	--	mg/L	--	100	80	--	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	--
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	--	--
Nickel	ug/l	25	mg/L	0.025	<5	<5	--	--
Potassium	ug/l	--	mg/L	--	2000	1000	--	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	7700	6500	--	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	--
Sodium	ug/l	--	mg/L	--	26000	12000	--	--
Strontium	ug/l	--	mg/L	--	75	51	--	--
Sulfur	ug/l	--	mg/L	--	2700	2300	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	20	--	--
Vanadium	ug/l	6	mg/L	0.006	3	2	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	30	10	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9990	10010	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	440	395	--	--
pH (Field)	-	8.5	-	8.5	7.3	7.3	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	10	2	--	--

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS17 25-Nov-2007	GS17 01-May-2008	GS17 11-Aug-2008	GS17 04-Nov-2008
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	90000	53000	127000	94000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	30	50	30	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	<1000	1000	2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	28000	22000	35000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	18000	19000	47000	33000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9300	14400	12000	14100
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	105000	61000	110000	88000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	110	120	340
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	620	660	500
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**320**	**110**	**160**	**210**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	8000	8000	13000
Total Dissolved Solids	ug/l	--	mg/L	--	176000	122000	274000	213000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--(9)	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	**360**	**80**	**110**
Barium	ug/l	--	mg/L	--	--	20	30	30
Beryllium	ug/l	11-1100 (11)	mg/L	0.011-1.1(11)	--	<1	<1	<1
Boron	ug/l	200(12)	mg/L	0.2(12)	<10	20	60	30
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	29000	16000	31000	22000
Chromium	ug/l	--(14)	mg/L	--(14)	--	3	5	2
Cobalt	ug/l	0.9	mg/L	0.0009	--	0.5	0.4	0.4
Copper	ug/l	5	mg/L	0.005	--	2	1	2
Iron	ug/l	300	mg/L	0.3	**1300**	**1070**	**1090**	**1000**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 25-Nov-2007	GS17 01-May-2008	GS17 11-Aug-2008	GS17 04-Nov-2008
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	<1	<1	<1
Magnesium	ug/l	--	mg/L	--	8000	5000	8000	8000
Manganese	ug/l	--	mg/L	--	90	90	70	70
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	--	<5	<5	<5
Nickel	ug/l	25	mg/L	0.025	--	<5	<5	<5
Potassium	ug/l	--	mg/L	--	--	1000	2000	2000
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	6500	6900	7200
Silver	ug/l	0.1	mg/L	0.0001	--	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	11000	14000	40000	24000
Strontium	ug/l	--	mg/L	--	--	56	129	87
Sulfur	ug/l	--	mg/L	--	--	3000	3000	4000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	<0.1	<0.1	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	40	30	20
Vanadium	ug/l	6	mg/L	0.006	--	3	4	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	10	<10	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	<1	<1	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10260	10310	**2180**	9280
Conductivity (Field)	uS/cm	--	uS/cm	--	270	135	440	285
pH (Field)	-	8.5	-	8.5	7.7	7.2	7.6	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	1.2	12.3	17.8	4.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 09-Apr-2009 C-8	GS17 05-Aug-2009 GS-17	GS17 03-Nov-2009 GS-17	GS17 01-Jun-2010 SW-6
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	53000	101000	88000	206000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	50	90	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	3000	<2000	5000
Chemical Oxygen Demand	ug/l	--	mg/L	--	23000	71000	50000	43000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	19000 [21]	38000	30000	36000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11000	28100	19400	13600
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	58000	91000	92000	63000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	200	<100	200	<100
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	10	<10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	1700	1000	1000
Nitrogen, Nitrate-Nitrite	ug/l	--			200	<100	200	<100
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**86**	**480** [27]	**150**	**400**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<5000 [21]	<10000 [21]	<10000 [21]	<1000
Total Dissolved Solids	ug/l	--	mg/L	--	120000	215000	200000	330000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**160**	**120**	**200**	33
Barium	ug/l	--	mg/L	--	20	41	27	33
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	<0.5	<0.5	<0.5
Boron	ug/l	200 [12]	mg/L	0.2 [12]	20	30	30	**240**
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	mg/L	--	15000	25000	25000	21000
Chromium	ug/l	-- [14]	mg/L	-- [14]	<5	<5	<5	<5
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	**1.1**	<0.5	**1.1**
Copper	ug/l	5	mg/L	0.005	1	4	2	4
Iron	ug/l	300	mg/L	0.3	**900**	**2700**	**1600**	**2300**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 09-Apr-2009 C-8	GS17 05-Aug-2009 GS-17	GS17 03-Nov-2009 GS-17	GS17 01-Jun-2010 SW-6
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.5	1.1	0.6	0.9
Magnesium	ug/l	--	mg/L	--	4900	7500	8800	6700
Manganese	ug/l	--	mg/L	--	71	190	54	280
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	<1
Nickel	ug/l	25	mg/L	0.025	1	3	2	3
Potassium	ug/l	--	mg/L	--	1000	7300	2500	6100
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5400	11000	8100	6200
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	mg/L	--	13000	29000	29000	110000
Strontium	ug/l	--	mg/L	--	54	100	89	81
Sulfur	ug/l	--	mg/L	--	2500	2100	3400	1500
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	<0.05	<0.05	<0.05
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	45	110	55	120
Vanadium	ug/l	6	mg/L	0.006	3	5	3	6
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	8	13	9	13
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12360	9240	10100	**4460**
Conductivity (Field)	uS/cm	--	uS/cm	--	185	340	288	528
pH (Field)	-	8.5	-	8.5	8.1	7.58	7.14	7.65
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	4.1	17.3	6.7	16.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 13-Aug-2010 L-1	GS17 12-Nov-2010 C-4	GS17 28-Apr-2011 A-5	GS17 27-May-2011 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	210000	96000	55000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	--
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	<50	<50	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	23000	46000	45000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	84000	26000	16000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8000	13800	13600	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	99000	86000	80000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	100	500	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	10	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1200	700	1000	--
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	100	500	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**450**	**120**	**210**	**260**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	7000	2000	1000	--
Total Dissolved Solids	ug/l	--	mg/L	--	424000	172000	94000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	69	**120**	**450**	--
Barium	ug/l	--	mg/L	--	79	26	33	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	<0.5	<0.5	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	200	40	20	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	<0.1	<0.1	--
Calcium	ug/l	--	mg/L	--	32000	22000	18000	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	15	<5	6	--
Cobalt	ug/l	0.9	mg/L	0.0009	**3.3**	0.6	**1.3**	--
Copper	ug/l	5	mg/L	0.005	**8**	2	5	--
Iron	ug/l	300	mg/L	0.3	**6800**	**2100**	**2400**	**3300**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 13-Aug-2010 L-1	GS17 12-Nov-2010 C-4	GS17 28-Apr-2011 A-5	GS17 27-May-2011 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	2.3	0.6	1.4	--
Magnesium	ug/l	--	mg/L	--	11000	8200	5600	--
Manganese	ug/l	--	mg/L	--	290	110	73	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<1	<1	<1	--
Nickel	ug/l	25	mg/L	0.025	9	2	4	--
Potassium	ug/l	--	mg/L	--	6200	2000	1800	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	18000	9300	6100	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	120000	28000	9000	--
Strontium	ug/l	--	mg/L	--	130	79	64	--
Sulfur	ug/l	--	mg/L	--	2500	2500	2200	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.05	<0.05	<0.05	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	440	70	110	--
Vanadium	ug/l	6	mg/L	0.006	**15**	3	6	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	23	6	17	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8470	9670	8730	--
Conductivity (Field)	uS/cm	--	uS/cm	--	610	282	841	--
pH (Field)	-	8.5	-	8.5	6.76	6.32	7.63	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.5	1.4	13.7	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 24-Aug-2011 C-2	GS17 07-Sep-2011 GS-17	GS17 07-Nov-2011 L-2	GS17 05-Jun-2012 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	230000	--	144000	60000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<0.4
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	--	<50	<50
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	--	<2000	<2000
Chemical Oxygen Demand	ug/l	--	mg/L	--	17000	--	38000	58000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	87000	--	43000	29000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	5800	--	9400	24000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	93000	--	96000	67000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	--	<100	1000
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	--	<10	10
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	500	--	700	1100
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	--	<100	1000
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**310**	**280**	**180**	**140**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	13000	--	8000	<1000
Total Dissolved Solids	ug/l	--	mg/L	--	468000	--	266000	178000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	24	--	44	**250**
Barium	ug/l	--	mg/L	--	31	--	22	23
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.5	--	<0.5	<0.50
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**230**	--	90	18
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.1	--	<0.1	<0.10
Calcium	ug/l	--	mg/L	--	29000	--	26000	21000
Chromium	ug/l	-- [14]	mg/L	-- [14]	<5	--	<5	<5.0
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	--	<0.5	0.75
Copper	ug/l	5	mg/L	0.005	3	--	1	3.1
Iron	ug/l	300	mg/L	0.3	**1400**	--	**1000**	**1900**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 24-Aug-2011 C-2	GS17 07-Sep-2011 GS-17	GS17 07-Nov-2011 L-2	GS17 05-Jun-2012 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<0.5	--	<0.5	0.86
Magnesium	ug/l	--	mg/L	--	7800	--	8600	6000
Manganese	ug/l	--	mg/L	--	38	--	73	85
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	mg/L	0.04	0.8	--	<0.5	<0.50
Nickel	ug/l	25	mg/L	0.025	2	--	1	2.1
Potassium	ug/l	--	mg/L	--	6500	--	3100	1400
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5900	--	7200	7100
Silver	ug/l	0.1	mg/L	0.0001	<0.1	--	<0.1	<0.10
Sodium	ug/l	--	mg/L	--	140000	--	62000	21000
Strontium	ug/l	--	mg/L	--	120	--	100	80
Sulfur	ug/l	--	mg/L	--	4200	--	3000	2000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.05	--	<0.05	<0.050
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	60	--	25	54
Vanadium	ug/l	6	mg/L	0.006	5.6	--	1.8	3.5
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<5	--	5	8.0
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	--	**3**	<1.0
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11240	--	12840	9640
Conductivity (Field)	uS/cm	--	uS/cm	--	638	--	421	219
pH (Field)	-	8.5	-	8.5	8.30	--	7.60	7.46
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	16.4	--	5.1	13.7

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 29-Aug-2012 GS-17	GS17 22-Apr-2013 GS-17	GS17 06-Sep-2013 GS-17	GS17 15-Oct-2013 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	280000	48000	230000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	4.4	1.01	<1.04	--
Ammonia Nitrogen	ug/l	--	mg/L	--	75	96	<50	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	17000	38000	17000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	38000	18000	42000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6100	12000	5800	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	36000	56000	60000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	100	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<10	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	370	800	500	--
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	100	<100	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**400**	**79**	**300**	**1400**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	2000	2000	3000	--
Total Dissolved Solids	ug/l	--	mg/L	--	386000	124000	384000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	28	**210**	14	--
Barium	ug/l	--	mg/L	--	26	17	31	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	<0.50	<0.50	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**330**	14	**260**	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	<0.10	<0.10	--
Calcium	ug/l	--	mg/L	--	10000	15000	19000	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	<5.0	<5.0	<5.0	--
Cobalt	ug/l	0.9	mg/L	0.0009	**1.0**	<0.50	**0.95**	--
Copper	ug/l	5	mg/L	0.005	3.8	2.0	4.1	--
Iron	ug/l	300	mg/L	0.3	**1900**	**1000**	**1600**	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 29-Aug-2012 GS-17	GS17 22-Apr-2013 GS-17	GS17 06-Sep-2013 GS-17	GS17 15-Oct-2013 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.71	0.74	0.80	--
Magnesium	ug/l	--	mg/L	--	3700	4900	6100	--
Manganese	ug/l	--	mg/L	--	41	58	41	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	0.69	<0.50	<0.50	--
Nickel	ug/l	25	mg/L	0.025	3.3	1.7	2.6	--
Potassium	ug/l	--	mg/L	--	5300	1100	4300	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	5700	5200	6100	--
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	--
Sodium	ug/l	--	mg/L	--	140000	13000	120000	--
Strontium	ug/l	--	mg/L	--	63	58	89	--
Sulfur	ug/l	--	mg/L	--	900	3300	1300	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	100	50	48	--
Vanadium	ug/l	6	mg/L	0.006	6.0	2.4	5.3	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	10	10	8.4	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	<1.0	<1.0	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7050	14790	8820	--
Conductivity (Field)	uS/cm	--	uS/cm	--	651	155	583	605
pH (Field)	-	8.5	-	8.5	8.36	8.02	8.04	6.98
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	15.1	2.5	10.5	13.0

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 29-Nov-2013 GS-17	GS17 09-May-2014 [26] GS-17	GS17 27-Aug-2014 GS-17	GS17 23-Sep-2014 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	110000	82000	240000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1.51	0.82	5.79	--
Ammonia Nitrogen	ug/l	--	mg/L	--	140	62	130	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	38000	34000	21000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	36000	33000	77000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11000	13000	5800	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	87000	79000	92000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	150	<200	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	<20	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	640	780	830	--
Nitrogen, Nitrate-Nitrite	ug/l	--			150	<200	<100	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**190**	**130**	**300**	**31**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	8000	<1000	7000	--
Total Dissolved Solids	ug/l	--	mg/L	--	220000	164000	404000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**99**	**150**	17	--
Barium	ug/l	--	mg/L	--	30	21	32	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	<0.50	<0.50	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	49	24	200	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	<0.10	<0.10	--
Calcium	ug/l	--	mg/L	--	28000	23000	25000	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	<5.0	<5.0	<5.0	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.61	<0.50	0.78	--
Copper	ug/l	5	mg/L	0.005	2.1	2.1	3.6	--
Iron	ug/l	300	mg/L	0.3	**1500**	**1000**	**1700**	**1100**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS17 29-Nov-2013 GS-17	GS17 09-May-2014 (26) GS-17	GS17 27-Aug-2014 GS-17	GS17 23-Sep-2014 GS-17
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	0.52	<0.50	0.63	--
Magnesium	ug/l	--	mg/L	--	8700	7200	7300	--
Manganese	ug/l	--	mg/L	--	96	96	37	--
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<0.50	<0.50	0.62	--
Nickel	ug/l	25	mg/L	0.025	1.9	1.1	2.9	--
Potassium	ug/l	--	mg/L	--	2600	1400	4000	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	9600	4900	5400	--
Silver	ug/l	0.1	mg/L	0.0001	<0.10	<0.10	<0.10	--
Sodium	ug/l	--	mg/L	--	42000	25000	120000	--
Strontium	ug/l	--	mg/L	--	98	83	110	--
Sulfur	ug/l	--	mg/L	--	3700	2700	2300	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	<0.050	<0.050	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	53	32	84	--
Vanadium	ug/l	6	mg/L	0.006	3.3	2.2	5.0	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	7.1	5.4	9.6	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	**1.8**	1.0	<1.0	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	-- (23)	10910	5900	--
Conductivity (Field)	uS/cm	--	uS/cm	--	-- (23)	251	686	--
pH (Field)	-	8.5	-	8.5	8.12	7.87	8.17	--
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	0.02	9.6	16.9	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 24-Nov-2014 GS-17	GS17 08-Dec-2014 GS-17	GS17 14-May-2015 GS-17	GS17 17-Jun-2015 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	47000	--	96000	--
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1.05	--	<0.81	1.5
Ammonia Nitrogen	ug/l	--	mg/L	--	190	--	<50	73
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	6000	--	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	68000	--	36000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	14000	--	32000	--
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	14000	--	17000	--
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	46000	--	86000	--
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1080	--	<100	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	--	13	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	2700	--	450	--
Nitrogen, Nitrate-Nitrite	ug/l	--			1080	--	<100	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**1100**	**38**	**110**	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	<1000	--	<1000	--
Total Dissolved Solids	ug/l	--	mg/L	--	210000	--	192000	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**90**	--	**120**	--
Barium	ug/l	--	mg/L	--	85	--	20	--
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	--	<0.50	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	14	--	41	--
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	--	<0.10	--
Calcium	ug/l	--	mg/L	--	15000	--	23000	--
Chromium	ug/l	-- [14]	mg/L	-- [14]	22	--	<5.0	--
Cobalt	ug/l	0.9	mg/L	0.0009	**4.0**	--	<0.50	--
Copper	ug/l	5	mg/L	0.005	**11**	--	1.7	--
Iron	ug/l	300	mg/L	0.3	**8600**	**1300**	**1100**	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 24-Nov-2014 GS-17	GS17 08-Dec-2014 GS-17	GS17 14-May-2015 GS-17	GS17 17-Jun-2015 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	3.4	--	<0.50	--
Magnesium	ug/l	--	mg/L	--	7400	--	6300	--
Manganese	ug/l	--	mg/L	--	180	--	38	--
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	--	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<0.50	--	<0.50	--
Nickel	ug/l	25	mg/L	0.025	11	--	1.4	--
Potassium	ug/l	--	mg/L	--	9500	--	1700	--
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	16000	--	5700	--
Silver	ug/l	0.1	mg/L	0.0001	<0.10	--	<0.10	--
Sodium	ug/l	--	mg/L	--	8300	--	29000	--
Strontium	ug/l	--	mg/L	--	62	--	79	--
Sulfur	ug/l	--	mg/L	--	2200	--	2200	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	0.083	--	<0.050	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	540	--	27	--
Vanadium	ug/l	6	mg/L	0.006	**17**	--	2.1	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**37**	--	<5.0	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	**11**	--	<1.0	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	12760	--	11010	10810
Conductivity (Field)	uS/cm	--	uS/cm	--	151	--	304	296
pH (Field)	-	8.5	-	8.5	7.69	--	7.94	7.89
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	3.9	--	10.3	14.9

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 18-Aug-2015 GS-17	GS17 20-Nov-2015 17	GS17 15-Jun-2016 GS-17	GS17 22-Aug-2016 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	250000	100000	216	185
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<1.44	<0.32	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	<50	<50	0.16	0.15
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<2000	<2000	6	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	20000	50000	121	29
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	100000	39000	40.7	105
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	621	714
Dissolved Organic Carbon	ug/l	--	mg/L	--	6400	18000	8.8	8.3
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	120000	120000	121	111
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	<100	310	0.2	0.1
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<10	16	< 0.1	< 0.1
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	330	1200	1.02	1.3
Nitrogen, Nitrate-Nitrite	ug/l	--			<100	330	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**390**	**340**	**0.5**	**0.52**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	8200	3200	35	22
Total Dissolved Solids	ug/l	--	mg/L	--	478000	272000	--	--
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	--	--	7.09	0.95
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	12	**130**	0.01	**0.07**
Barium	ug/l	--	mg/L	--	56	37	0.104	0.052
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	<0.50	<0.50	< 0.002	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**230**	25	0.145	0.139
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	<0.10	<0.10	0.00013	0.00004
Calcium	ug/l	--	mg/L	--	32000	30000	38.2	31.9
Chromium	ug/l	-- [14]	mg/L	-- [14]	10	<5.0	0.023	0.002
Cobalt	ug/l	0.9	mg/L	0.0009	**2.2**	0.65	**0.0049**	0.001
Copper	ug/l	5	mg/L	0.005	**6.6**	3.5	**0.0162**	**0.0053**
Iron	ug/l	300	mg/L	0.3	**4400**	**1800**	**11.6**	**1.5**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 18-Aug-2015 GS-17	GS17 20-Nov-2015 17	GS17 15-Jun-2016 GS-17	GS17 22-Aug-2016 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	1.3	0.61	0.00377	0.00124
Magnesium	ug/l	--	mg/L	--	9500	9500	18.1	7.63
Manganese	ug/l	--	mg/L	--	110	51	0.749	0.152
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.59	<0.50	0.0005	0.0005
Nickel	ug/l	25	mg/L	0.025	6.7	2.6	0.0135	0.0032
Potassium	ug/l	--	mg/L	--	5500	5700	5.3	9.5
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	11000	9100	15.8	5.73
Silver	ug/l	0.1	mg/L	0.0001	**0.24**	<0.10	< 0.00002	< 0.00002
Sodium	ug/l	--	mg/L	--	130000	29000	77.7	101
Strontium	ug/l	--	mg/L	--	130	110	0.147	0.145
Sulfur	ug/l	--	mg/L	--	2400	3600	11.3	7.4
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.050	<0.050	0.00009	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	220	78	0.473	0.027
Vanadium	ug/l	6	mg/L	0.006	**9.7**	3.7	**0.0162**	0.0059
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	15	7.9	**0.038**	0.008
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1.0	<1.0	**0.002**	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	10840	12010	4.88	6.12
Conductivity (Field)	uS/cm	--	uS/cm	--	312	449	563	747
pH (Field)	-	8.5	-	8.5	7.91	7.69	7.8	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	18.9	5.7	13.6	18.1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 13-Oct-2016 GS-17	GS17 01-May-2017 GS-17	GS17 20-Sep-2017 GS-17	GS17 6-Nov-2017 GS-17
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	281	44	226	86
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.02	0.26	0.05	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	4	< 3
Chemical Oxygen Demand	ug/l	--	mg/L	--	24	57	26	90
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	76.6	10.1	56.6	13
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	748	172	635	204
Dissolved Organic Carbon	ug/l	--	mg/L	--	6.8	12.5	7.9	23.6
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	70	75	95	61
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	< 0.1	0.58	< 0.1	0.1
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.05	< 0.1	< 0.05
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.59	1.61	0.6	1.1
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.35**	**0.59**	**0.26**	**0.25**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	5	5	5	7
Total Dissolved Solids	ug/l	--	mg/L	--	--	88.3	342	110
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	--
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	0.82	5.3	2.12	1.85
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**0.02**	**0.1**	**0.03**	**0.25**
Barium	ug/l	--	mg/L	--	0.029	0.065	0.05	0.031
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.002	< 0.002
Boron	ug/l	200 [12]	mg/L	0.2 [12]	**0.24**	0.013	**0.214**	0.008
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	0.00005	0.000116	0.000065	0.000075
Calcium	ug/l	--	mg/L	--	18.2	18	29.8	16.2
Chromium	ug/l	-- [14]	mg/L	-- [14]	0.002	0.012	0.006	0.004
Cobalt	ug/l	0.9	mg/L	0.0009	0.0008	**0.0025**	**0.0014**	0.0008
Copper	ug/l	5	mg/L	0.005	0.0027	**0.009**	**0.0136**	**0.0063**
Iron	ug/l	300	mg/L	0.3	**1.54**	**6.83**	**2.86**	**2.15**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 13-Oct-2016 GS-17	GS17 01-May-2017 GS-17	GS17 20-Sep-2017 GS-17	GS17 6-Nov-2017 GS-17
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00065	0.00278	0.00132	0.00135
Magnesium	ug/l	--	mg/L	--	5.96	7.19	9.26	4.98
Manganese	ug/l	--	mg/L	--	0.155	0.133	0.088	0.05
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum	ug/l	40	mg/L	0.04	0.0003	0.0005	0.0006	0.0003
Nickel	ug/l	25	mg/L	0.025	0.002	0.0078	0.0065	0.0041
Potassium	ug/l	--	mg/L	--	5.3	4.2	4.4	2.8
Selenium	ug/l	100	mg/L	0.1	--	--	--	--
Silicon	ug/l	--	mg/L	--	4.45	11.3	8.68	6.53
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	0.00002	< 0.00002	0.00002
Sodium	ug/l	--	mg/L	--	132	10.3	108	13.4
Strontium	ug/l	--	mg/L	--	0.087	0.087	0.148	0.061
Sulfur	ug/l	--	mg/L	--	1.8	1.8	1.8	2.4
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	0.00006	< 0.00005	< 0.00005
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.034	0.338	0.121	0.091
Vanadium	ug/l	6	mg/L	0.006	0.0032	**0.0099**	0.006	0.0034
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	< 0.005	**0.06**	**0.041**	0.021
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	< 0.001
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7.02	9.97	6.95	6.88
Conductivity (Field)	uS/cm	--	uS/cm	--	736	143	554	167
pH (Field)	-	8.5	-	8.5	8.1	7.2	8.0	7.7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.4	6.9	16.8	9.7

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 30-Apr-2018 GS-17	GS17 20-Aug-2018 GS-17	GS17 05-Nov-2018 GS-17	
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	-- [5]	mg/L	-- [5]	66	220	98	
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	
Ammonia Nitrogen	ug/l	--	mg/L	--	0.03	0.03	0.05	
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	6	
Chemical Oxygen Demand	ug/l	--	mg/L	--	82	24	44	
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	27.2	147	66.8	
Color	color unit	--	color unit	--	--	--	--	
Conductivity	umho/cm	--	umho/cm	--	259	877	456	
Dissolved Organic Carbon	ug/l	--	mg/L	--	13.9	5.6	13.6	
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	95	130	136	
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	0.05	0.06	0.6	
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.05	< 0.05	< 0.05	
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	0.7	0.5	0.7	
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.19**	**0.23**	**0.18**	
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	6	3.6	5.2	
Total Dissolved Solids	ug/l	--	mg/L	--	127	477	232	
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	
Turbidity	ntu	-- [9]	ntu	-- [9]	--	--	--	
Metals								
Aluminum	ug/l	-- [10]	mg/L	0.075	1.24	1.54	0.58	
Aluminum, dissolved	ug/l	15-75 [10]	mg/L	0.015-0.075 [10]	**0.14**	**0.03**	**0.12**	
Barium	ug/l	--	mg/L	--	0.037	0.042	0.038	
Beryllium	ug/l	11-1100 [11]	mg/L	0.011-1.1 [11]	< 0.002	< 0.002	< 0.001	
Boron	ug/l	200 [12]	mg/L	0.2 [12]	0.013	0.185	0.013	
Cadmium	ug/l	0.2 [13]	mg/L	0.0002 [13]	0.000045	0.000025	0.000027	
Calcium	ug/l	--	mg/L	--	24.9	34	36	
Chromium	ug/l	-- [14]	mg/L	-- [14]	0.004	0.006	0.003	
Cobalt	ug/l	0.9	mg/L	0.0009	0.0008	0.0012	0.0004	
Copper	ug/l	5	mg/L	0.005	0.0033	0.004	0.007	
Iron	ug/l	300	mg/L	0.3	**1.46**	**2.14**	**0.983**	

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS17 30-Apr-2018 GS-17	GS17 20-Aug-2018 GS-17	GS17 05-Nov-2018 GS-17	
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00083	0.00078	0.00047	
Magnesium	ug/l	--	mg/L	--	7.89	8.82	11.2	
Manganese	ug/l	--	mg/L	--	0.068	0.053	0.038	
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	
Molybdenum	ug/l	40	mg/L	0.04	<0.0001	0.0007	0.0003	
Nickel	ug/l	25	mg/L	0.025	0.0027	0.0038	0.0021	
Potassium	ug/l	--	mg/L	--	2.2	4.3	2.4	
Selenium	ug/l	100	mg/L	0.1	--	--	--	
Silicon	ug/l	--	mg/L	--	5.01	6.33	6.18	
Silver	ug/l	0.1	mg/L	0.0001	0.00002	<0.00001	<0.00001	
Sodium	ug/l	--	mg/L	--	18.1	139	39	
Strontium	ug/l	--	mg/L	--	0.116	0.14	0.166	
Sulfur	ug/l	--	mg/L	--	2	10	17	
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.000022	< 0.00005	< 0.00005	
Tin	ug/l	--	mg/L	--	--	--	--	
Titanium	ug/l	--	mg/L	--	0.049	0.095	0.03	
Vanadium	ug/l	6	mg/L	0.006	0.0039	0.0074	0.0018	
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	0.042	0.019	0.01	
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	0.002	0.002	
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7.15	7.85	11.9	
Conductivity (Field)	uS/cm	--	uS/cm	--	202	663	375	
pH (Field)	-	8.5	-	8.5	7.6	7.7	7.4	
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.2	19.6	3.6	

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 04-Jun-1994 GS-20	GS20 07-Sep-1994 GS-20	GS20 24-Nov-1994 (4) GS-20	GS20 28-May-1995 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	118000	98000	--	122000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	28000	15000	--	21000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	44000	38000	--	36000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	10000	6600	--	9800
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	152000	142000	--	143000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	6.4	7.3	--	7
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	250000	260000	--	260000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	--	--	--	--
Boron	ug/l	200(12)	mg/L	0.2(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--(14)	mg/L	--(14)	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	--	--	--	**2480**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 04-Jun-1994 GS-20	GS20 07-Sep-1994 GS-20	GS20 24-Nov-1994 (4) GS-20	GS20 28-May-1995 GS-20
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	--	--	--	430
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	38000	22000	--	34000
Strontium	ug/l	--	mg/L	--	160	150	--	160
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	11200	10400	--	9200
Conductivity (Field)	uS/cm	--	uS/cm	--	420	410	--	410
pH (Field)	-	8.5	-	8.5	6.4	7.3	--	7
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	11.5	10	--	13.5

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 11-Sep-1995 GS-20	GS20 07-Nov-1995 (4) GS-20	GS20 17-Jul-1996 GS-20	GS20 22-Nov-1996 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	93000	--	85000	98000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	18000	--	31000	21000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	28000	--	46000	38000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6900	--	13000	7200
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	137000	--	100000	129000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	7.8	--	6	6.2
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	228000	--	252000	244000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	--	--	--	--
Boron	ug/l	200(12)	mg/L	0.2(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--(14)	mg/L	--(14)	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**3780**	--	**710**	**1300**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 11-Sep-1995 GS-20	GS20 07-Nov-1995 [4] GS-20	GS20 17-Jul-1996 GS-20	GS20 22-Nov-1996 GS-20
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	240	--	90	70
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	26000	--	38000	34000
Strontium	ug/l	--	mg/L	--	165	--	137	133
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	-- [23]	--	8400	11800
Conductivity (Field)	uS/cm	--	uS/cm	--	360	--	360	240
pH (Field)	-	8.5	-	8.5	7.8	--	6	6.2
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	11	--	22	1

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 10-Jun-1997 GS-20	GS20 09-Sep-1997 GS-20	GS20 09-Jun-1998 GS-20	GS20 20-Aug-1998 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	101000	118000	102000	143000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	37000	46000	3000	38000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	25000	37000	33000	42000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	8000	18200	9800	14000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	103000	135000	114000	142000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	7.5	6.4	8.03	7.5
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	192000	244000	220000	252000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	23000	--	--	--
Chromium	ug/l	--[14]	mg/L	--[14]	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**2770**	**1430**	**1950**	**1060**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 10-Jun-1997 GS-20	GS20 09-Sep-1997 GS-20	GS20 09-Jun-1998 GS-20	GS20 20-Aug-1998 GS-20
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	--	--	--	--
Magnesium	ug/l	--	mg/L	--	11000	--	--	--
Manganese	ug/l	--	mg/L	--	270	640	160	560
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	24000	31000	23000	30000
Strontium	ug/l	--	mg/L	--	124	142	134	157
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	11700	6300	-- (22)	6300
Conductivity (Field)	uS/cm	--	uS/cm	--	220	310	230	410
pH (Field)	-	8.5	-	8.5	7.5	6.4	8.03	7.5
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	20	17	27	16

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 25-May-1999 GS-20	GS20 31-Aug-1999 GS-20	GS20 01-Jun-2000 GS-20	GS20 18-Aug-2000 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	111000	116000	109000	131000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	--	--
Ammonia Nitrogen	ug/l	--	mg/L	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	29000	30000	25000	15000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	33000	26000	24000	32000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9600	7900	9500	7000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	112000	140000	116000	132000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	8.15	6.25	6.7	7.7
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	--	--	--	--
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	216000	208000	188000	292000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	--	--	--	--
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	25000	28000
Chromium	ug/l	--[14]	mg/L	--[14]	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**1210**	**3090**	**510**	**1020**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 25-May-1999 GS-20	GS20 31-Aug-1999 GS-20	GS20 01-Jun-2000 GS-20	GS20 18-Aug-2000 GS-20
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	13000	15000
Manganese	ug/l	--	mg/L	--	120	550	140	60
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	--	20000	25000	32000
Strontium	ug/l	--	mg/L	--	126	160	321	137
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	12100	6200	6900	6700
Conductivity (Field)	uS/cm	--	uS/cm	--	270	260	210	387
pH (Field)	-	8.5	-	8.5	8.15	6.25	6.7	7.7
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	14	12	10	16.4

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 29-May-2007 GS-20	GS20 23-Aug-2007 GS-20	GS20 25-Nov-2007 GS-20	GS20 01-May-2008 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	119000	144000	124000	92000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	90	180	40	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	3000	--	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	20000	25000	--	7000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	43000	52000	71000	36000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	11400	12000	7200	8000
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	139000	177000	150000	108000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1590	390	--	2150
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1420	970	--	730
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	8.4	7.4	7.4	6.9
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**120**	**160**	**110**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	23000	30000	--	22000
Total Dissolved Solids	ug/l	--	mg/L	--	276000	332000	378000	239000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	50	50	--	**130**
Barium	ug/l	--	mg/L	--	30	40	--	30
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	<1	<1	--	<1
Boron	ug/l	200(12)	mg/L	0.2(12)	70	150	50	80
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	31000	43000	32000	25000
Chromium	ug/l	--(14)	mg/L	--(14)	2	3	--	3
Cobalt	ug/l	0.9	mg/L	0.0009	0.8	0.7	--	0.4
Copper	ug/l	5	mg/L	0.005	3	3	--	3
Iron	ug/l	300	mg/L	0.3	**1140**	**1000**	**830**	**510**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 29-May-2007 GS-20	GS20 23-Aug-2007 GS-20	GS20 25-Nov-2007 GS-20	GS20 01-May-2008 GS-20
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	--	<1
Magnesium	ug/l	--	mg/L	--	15000	17000	17000	11000
Manganese	ug/l	--	mg/L	--	180	240	80	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	--	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	--	<5
Potassium	ug/l	--	mg/L	--	4000	5000	--	3000
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	2900	5300	--	4400
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	36000	36000	43000	27000
Strontium	ug/l	--	mg/L	--	136	180	--	116
Sulfur	ug/l	--	mg/L	--	7700	10000	--	7000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	**0.5**	<0.1	--	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	20	--	30
Vanadium	ug/l	6	mg/L	0.006	3	4	--	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7730	**5800**	**5050**	10670
Conductivity (Field)	uS/cm	--	uS/cm	--	270	700	600	280
pH (Field)	-	8.5	-	8.5	8.4	7.4	7.4	6.9
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	23.6	15.6	0.5	4.4

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 11-Aug-2008 GS-20	GS20 04-Nov-2008 GS-20	GS20 09-Apr-2009 GS-20	GS20 01-May-2017 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	124000	117000	96000	58
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	60	70	<50	0.07
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	18000	23000	18000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	42000	46000	39000	14.7
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	225
Dissolved Organic Carbon	ug/l	--	mg/L	--	8700	8000	7900	10.9
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	133000	128000	110000	91
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	2860	4650	3500	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1000	520	900	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	3500	--
Nitrogen, Organic	ug/l	--	mg/L	--	8.2	7.8	7.9	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**90**	**110**	**47**	**0.22**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	25000	29000	25000	
Total Dissolved Solids	ug/l	--	mg/L	--	293000	307000	242000	117
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	70	40	42	--
Barium	ug/l	--	mg/L	--	40	40	40	--
Beryllium	ug/l	[11]	mg/L	0.011-1.1[11]	<1	<1	<0.5	--
Boron	ug/l	200[12]	mg/L	0.2[12]	90	80	70	0.034
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	<0.1	<0.1	<0.1	--
Calcium	ug/l	--	mg/L	--	32000	28000	26000	--
Chromium	ug/l	--[14]	mg/L	--[14]	3	2	<5	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.6	0.5	0.6	--
Copper	ug/l	5	mg/L	0.005	3	3	3	--
Iron	ug/l	300	mg/L	0.3	**1020**	**550**	**900**	**7.17**

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 11-Aug-2008 GS-20	GS20 04-Nov-2008 GS-20	GS20 09-Apr-2009 GS-20	GS20 01-May-2017 GS-20
Lead	ug/l	5-25 (15)	mg/L	0.005-0.025 (15)	<1	<1	<0.5	--
Magnesium	ug/l	--	mg/L	--	13000	14000	12000	
Manganese	ug/l	--	mg/L	--	80	30	31	0.116
Mercury, dissolved	ug/l	0.2 (16)	mg/L	0.0002 (16)	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	--
Nickel	ug/l	25	mg/L	0.025	<5	<5	3	--
Potassium	ug/l	--	mg/L	--	4000	4000	4100	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	5500	5800	5400	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	34000	34000	32000	17.3
Strontium	ug/l	--	mg/L	--	170	135	130	--
Sulfur	ug/l	--	mg/L	--	8000	10000	7500	--
Thallium	ug/l	0.3 (17)	mg/L	0.0003 (17)	<0.1	<0.1	<0.05	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	10	58	--
Vanadium	ug/l	6	mg/L	0.006	4	2	4	--
Zinc	ug/l	30 (13)	mg/L	0.03 (13)	<10	<10	10	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 (18)	mg/L	0.001 (18)	<1	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- (6)	mg/L	-- (6)	6520	6520	11610	8.95
Conductivity (Field)	uS/cm	--	uS/cm	--	410	430	400	2021
pH (Field)	-	8.5	-	8.5	8.2	7.8	7.9	7.5
Temperature (Field)	deg c	-- (8)	deg c	-- (8)	17	9.3	7.8	7.5

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 20-Sep-2017 GS-20	GS20 06-Nov-2017 GS-20	GS20 30-Apr-2018 GS-20	GS20 20-Aug-2018 GS-20
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	119	81	93	92
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05	0.05	0.04	0.09
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	4	< 3	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	24	56	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	30.1	22.9	44.6	36.1
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	436	294	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9.4	13.3	10.1	7.3
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	148	104	116	128
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	2.3	4.3	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	0.2	< 0.05	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1	0.9	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--			--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**0.13**	**0.1**	**0.13**	0.23
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	20	15	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	226	151	--	203
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals							--	--
Aluminum	ug/l	--(10)	mg/L	0.075	**2.26**	**2.26**	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	**0.04**	**0.06**	--	--
Barium	ug/l	--	mg/L	--	0.063	0.05	--	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	< 0.002	< 0.002	--	--
Boron	ug/l	200(12)	mg/L	0.2(12)	0.135	0.06	0.052	0.085
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	0.00006	0.000052	--	--
Calcium	ug/l	--	mg/L	--	38.7	24.5	--	--
Chromium	ug/l	--(14)	mg/L	--(14)	0.006	< 0.001	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.0016	0.0003	--	--
Copper	ug/l	5	mg/L	0.005	0.0117	0.0049	--	--
Iron	ug/l	300	mg/L	0.3	**3.13**	**2.61**	**1.89**	5.75

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 20-Sep-2017 GS-20	GS20 06-Nov-2017 GS-20	GS20 30-Apr-2018 GS-20	GS20 20-Aug-2018 GS-20
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00122	0.00029	--	--
Magnesium	ug/l	--	mg/L	--	16.8	10.7	--	--
Manganese	ug/l	--	mg/L	--	0.175	0.051	0.048	0.18
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	--	--
Molybdenum	ug/l	40	mg/L	0.04	0.0004	0.0003	--	--
Nickel	ug/l	25	mg/L	0.025	0.0073	0.0042	--	--
Potassium	ug/l	--	mg/L	--	4.8	4	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	8.21	8.1	--	--
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	--	--
Sodium	ug/l	--	mg/L	--	34.6	23.2	--	30
Strontium	ug/l	--	mg/L	--	0.22	0.11	--	--
Sulfur	ug/l	--	mg/L	--	7.2	5.3	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.145	0.127	--	--
Vanadium	ug/l	6	mg/L	0.006	0.0059	0.0004	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**0.044**	**0.127**	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8.8	6.28	7.46	6.28
Conductivity (Field)	uS/cm	--	uS/cm	--	373	287	324	310
pH (Field)	-	8.5	-	8.5	7.7	7.7	7.6	8.1
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	20.5	10.7	9.5	24.8

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS20 05-Nov-2018 GS-20			
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	116			
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01			
Ammonia Nitrogen	ug/l	--	mg/L	--	0.05			
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--			
Chemical Oxygen Demand	ug/l	--	mg/L	--	--			
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	46.5			
Color	color unit	--	color unit	--	--			
Conductivity	umho/cm	--	umho/cm	--	--			
Dissolved Organic Carbon	ug/l	--	mg/L	--	8.4			
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	143			
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--			
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--			
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--			
Nitrogen, Nitrate-Nitrite	ug/l	--			--			
Nitrogen, Organic	ug/l	--	mg/L	--	--			
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	0.08			
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--			
Total Dissolved Solids	ug/l	--	mg/L	--	235			
Total Organic Carbon	ug/l	--	mg/L	--	--			
Total Suspended Solids	ug/l	--	mg/L	--	--			
Turbidity	ntu	--(9)	ntu	--	--			
Metals					--			
Aluminum	ug/l	--(10)	mg/L	0.075	--			
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--			
Barium	ug/l	--	mg/L	--	--			
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	--			
Boron	ug/l	200(12)	mg/L	0.2(12)	0.059			
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--			
Calcium	ug/l	--	mg/L	--	32.1			
Chromium	ug/l	--(14)	mg/L	--(14)	--			
Cobalt	ug/l	0.9	mg/L	0.0009	--			
Copper	ug/l	5	mg/L	0.005	--			
Iron	ug/l	300	mg/L	0.3	1.04			

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS20 05-Nov-2018 GS-20			
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--			
Magnesium	ug/l	--	mg/L	--	15.3			
Manganese	ug/l	--	mg/L	--	0.032			
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--			
Molybdenum	ug/l	40	mg/L	0.04	--			
Nickel	ug/l	25	mg/L	0.025	--			
Potassium	ug/l	--	mg/L	--	--			
Selenium	ug/l	100	mg/L	--	--			
Silicon	ug/l	--	mg/L	--	--			
Silver	ug/l	0.1	mg/L	0.0001	--			
Sodium	ug/l	--	mg/L	--	36.4			
Strontium	ug/l	--	mg/L	--	--			
Sulfur	ug/l	--	mg/L	--	--			
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--			
Tin	ug/l	--	mg/L	--	--			
Titanium	ug/l	--	mg/L	--	--			
Vanadium	ug/l	6	mg/L	0.006	--			
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--			
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--			
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	9.5			
Conductivity (Field)	uS/cm	--	uS/cm	--	371			
pH (Field)	-	8.5	-	8.5	7.9			
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	6.4			

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS21 29-May-2007 GS-21	GS21 23-Aug-2007 GS-21	GS21 25-Nov-2007 GS-21	GS21 01-May-2008 GS-21
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	112000	113000	122000	79000
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	mg/L	--	50	80	30	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	1000	2000	--	<1000
Chemical Oxygen Demand	ug/l	--	mg/L	--	11000	<5000	--	7000
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	42000	42000	71000	27000
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	7300	5800	6300	6300
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	123000	157000	150000	96000
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	1910	1970	--	2570
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1110	1110	--	550
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**110**	**540**	**220**	**50**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	27000	38000	--	21000
Total Dissolved Solids	ug/l	--	mg/L	--	277000	298000	380000	206000
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	40	10	--	**150**
Barium	ug/l	--	mg/L	--	30	50	--	30
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	<1	<1	--	<1
Boron	ug/l	200(12)	mg/L	0.2(12)	60	70	50	30
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	mg/L	--	28000	38000	32000	22000
Chromium	ug/l	--(14)	mg/L	--(14)	1	4	--	3
Cobalt	ug/l	0.9	mg/L	0.0009	0.5	**1**	--	0.4
Copper	ug/l	5	mg/L	0.005	3	5	--	3
Iron	ug/l	300	mg/L	0.3	**670**	**1530**	**980**	**510**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 29-May-2007 GS-21	GS21 23-Aug-2007 GS-21	GS21 25-Nov-2007 GS-21	GS21 01-May-2008 GS-21
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	1	--	<1
Magnesium	ug/l	--	mg/L	--	13000	15000	17000	10000
Manganese	ug/l	--	mg/L	--	60	90	60	50
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	--	<5
Nickel	ug/l	25	mg/L	0.025	<5	<5	--	<5
Potassium	ug/l	--	mg/L	--	4000	5000	--	3000
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	2600	6700	--	4800
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	mg/L	--	34000	31000	45000	23000
Strontium	ug/l	--	mg/L	--	121	135	--	93
Sulfur	ug/l	--	mg/L	--	9000	12700	--	7000
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	**0.4**	<0.1	--	<0.1
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	20	--	30
Vanadium	ug/l	6	mg/L	0.006	3	5	--	2
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	--	<10
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	--	<1
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	11790	**5490**	10700	10550
Conductivity (Field)	uS/cm	--	uS/cm	--	280	500	460	235
pH (Field)	-	8.5	-	8.5	**8.8**	7.7	7.9	7
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	24.1	15.2	0.3	4.4

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS21 11-Aug-2008 GS-21	GS21 04-Nov-2008 GS-21	GS21 09-Apr-2009 GS-21	GS21 01-May-2017 GS-21
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	112000	116000	87000	51
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	< 0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	60	30	<50	0.1
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	<1000	<1000	<2000	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	<5000	15000	16000	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	36000	39000	28000	11
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	208
Dissolved Organic Carbon	ug/l	--	mg/L	--	5700	6300	6500	10.4
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	122000	132000	95000	92
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	3360	5380	4200	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	<100	<100	<10	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	900	550	900	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	4200	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**160**	**130**	**59**	**0.28**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	27000	30000	22000	--
Total Dissolved Solids	ug/l	--	mg/L	--	272000	297000	202000	110
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	20	20	43	--
Barium	ug/l	--	mg/L	--	40	40	38	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	<1	<1	<0.5	--
Boron	ug/l	200(12)	mg/L	0.2(12)	50	60	30	0.028
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	<0.1	<0.1	<0.1	--
Calcium	ug/l	--	mg/L	--	29000	28000	23000	--
Chromium	ug/l	--(14)	mg/L	--(14)	3	3	<5	--
Cobalt	ug/l	0.9	mg/L	0.0009	0.7	0.5	0.5	--
Copper	ug/l	5	mg/L	0.005	4	4	3	--
Iron	ug/l	300	mg/L	0.3	**1090**	**660**	**700**	**10.7**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 11-Aug-2008 GS-21	GS21 04-Nov-2008 GS-21	GS21 09-Apr-2009 GS-21	GS21 01-May-2017 GS-21
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	<1	<1	<0.5	--
Magnesium	ug/l	--	mg/L	--	12000	15000	10000	--
Manganese	ug/l	--	mg/L	--	60	40	28	0.151
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	<0.1	<0.1	<0.1	--
Molybdenum	ug/l	40	mg/L	0.04	<5	<5	<1	--
Nickel	ug/l	25	mg/L	0.025	<5	<5	3	--
Potassium	ug/l	--	mg/L	--	4000	5000	4000	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	5900	5800	4900	--
Silver	ug/l	0.1	mg/L	0.0001	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	mg/L	--	31000	33000	23000	14.6
Strontium	ug/l	--	mg/L	--	156	125	100	--
Sulfur	ug/l	--	mg/L	--	9000	10000	6200	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	<0.1	<0.1	<0.05	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	20	10	37	--
Vanadium	ug/l	6	mg/L	0.006	5	3	3	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	<10	<10	6	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	<1	<1	<1	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	**4500**	8490	11650	9.24
Conductivity (Field)	uS/cm	--	uS/cm	--	400	400	310	183
pH (Field)	-	8.5	-	8.5	8.1	7.8	8	7.3
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	17	9.5	9	7.6

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 20-Sep-2017 GS-21	GS21 06-Nov-2017 GS-21	GS21 06-Nov-2017 Dup (GS 23)	RPD GS-21
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	95	70	71	1%
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	NC
Ammonia Nitrogen	ug/l	--	mg/L	--	0.06	0.07	0.06	15%
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	< 3	< 3	< 3	NC
Chemical Oxygen Demand	ug/l	--	mg/L	--	10	40	42	5%
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	25	17.1	17.3	1%
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	376	258	264	2%
Dissolved Organic Carbon	ug/l	--	mg/L	--	6.9	11.3	11.1	2%
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	128	101	101	NC
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	2.5	5.22	5.23	NC
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	< 0.1	< 0.05	< 0.05	NC
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	1	0.9	1	11%
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.16**	**0.1**	0.1	NC
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	22	16	16	NC
Total Dissolved Solids	ug/l	--	mg/L	--	196	132	135	2%
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--	--	--	--	--
Metals								
Aluminum	ug/l	--[10]	mg/L	0.075	**2.88**	**2.26**	2.34	3%
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	**0.03**	**0.11**	0.11	NC
Barium	ug/l	--	mg/L	--	0.062	0.049	0.051	4%
Beryllium	ug/l	[11]	mg/L	0.011-1.1[11]	< 0.002	< 0.002	< 0.002	NC
Boron	ug/l	200[12]	mg/L	0.2[12]	0.061	0.032	0.032	NC
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	0.000051	0.000089	0.000085	5%
Calcium	ug/l	--	mg/L	--	32.7	22.3	23.2	4%
Chromium	ug/l	--[14]	mg/L	--[14]	0.008	0.006	0.005	18%
Cobalt	ug/l	0.9	mg/L	0.0009	**0.0021**	**0.0015**	0.0015	NC
Copper	ug/l	5	mg/L	0.005	**0.0126**	**0.0085**	0.0079	7%
Iron	ug/l	300	mg/L	0.3	**3.62**	**2.52**	2.63	4%

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 20-Sep-2017 GS-21	GS21 06-Nov-2017 GS-21	GS21 06-Nov-2017 GS-21	RPD GS-21
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	0.00143	0.00127	0.00127	NC
Magnesium	ug/l	--	mg/L	--	14.6	10.4	10.7	3%
Manganese	ug/l	--	mg/L	--	0.1	0.056	0.058	4%
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	< 0.00002	< 0.00002	< 0.00002	NC
Molybdenum	ug/l	40	mg/L	0.04	0.0005	0.0003	0.0003	NC
Nickel	ug/l	25	mg/L	0.025	0.0086	0.0074	0.0073	1%
Potassium	ug/l	--	mg/L	--	4.7	3.9	4.1	5%
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	9.1	8.23	8.45	3%
Silver	ug/l	0.1	mg/L	0.0001	< 0.00002	< 0.00002	< 0.00002	NC
Sodium	ug/l	--	mg/L	--	28.3	18	18.6	3%
Strontium	ug/l	--	mg/L	--	0.193	0.103	0.105	2%
Sulfur	ug/l	--	mg/L	--	7.7	5.6	5.7	2%
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	< 0.00005	< 0.00005	< 0.00005	NC
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	0.184	0.124	0.13	5%
Vanadium	ug/l	6	mg/L	0.006	**0.0073**	0.0042	0.0042	NC
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	**0.043**	0.027	0.022	20%
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	< 0.001	< 0.001	NC
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	8.89	6.78	--	--
Conductivity (Field)	uS/cm	--	uS/cm	--	328	262	--	--
pH (Field)	-	8.5	-	8.5	7.9	7.7	--	--
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	24.4	10.7	--	--

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 30-Apr-2018 GS-21	GS21 30-Apr-2018 GS-22 Dup	RDP	GS21 20-Aug-2018 GS-21
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--[5]	mg/L	--[5]	82	82	NC	90
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	NC	0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.03	0.03	NC	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	26.7	27.1	1%	33.3
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	9.4	9.1	3%	5.9
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	113	117	3%	114
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30[7]	mg/L	0.010 -0.030[7]	**0.11**	**0.11**	NC	**0.07**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	--	161	--	189
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--[9]	ntu	--	--	--	--	--
Metals					--	--		--
Aluminum	ug/l	--[10]	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75[10]	mg/L	0.015-0.075[10]	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	[11]	mg/L	0.011-1.1[11]	--	--	--	--
Boron	ug/l	200[12]	mg/L	0.2[12]	0.03	0.031	3%	0.056
Cadmium	ug/l	0.2[13]	mg/L	0.0002[13]	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	--	--	--
Chromium	ug/l	--[14]	mg/L	--[14]	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	**2.15**	**2.32**	8%	**1.39**

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 30-Apr-2018 GS-21	GS21 30-Apr-2018 GS-21		GS21 20-Aug-2018 GS-21
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	--	--	--
Manganese	ug/l	--	mg/L	--	0.041	0.053	26%	0.032
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	24.1	25	4%	27.2
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	< 0.001	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	7.69	7.69	NC	5.36
Conductivity (Field)	uS/cm	--	uS/cm	--	259	259	NC	298
pH (Field)	-	8.5	-	8.5	7.7	7.7	NC	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	9.7	9.7	NC	22.2

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO	GS21 20-Aug-2018 GS-21
					GS-22 Dup
General Chemistry					
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	90
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	0.01
Ammonia Nitrogen	ug/l	--	mg/L	--	0.04
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	33.5
Color	color unit	--	color unit	--	--
Conductivity	umho/cm	--	umho/cm	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	6.1
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	117
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	**0.07**
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--
Total Dissolved Solids	ug/l	--	mg/L	--	190
Total Organic Carbon	ug/l	--	mg/L	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--
Turbidity	ntu	--(9)	ntu	--	--
Metals					--
Aluminum	ug/l	--(10)	mg/L	0.075	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--
Barium	ug/l	--	mg/L	--	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	--
Boron	ug/l	200(12)	mg/L	0.2(12)	0.056
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--
Calcium	ug/l	--	mg/L	--	--
Chromium	ug/l	--(14)	mg/L	--(14)	--
Cobalt	ug/l	0.9	mg/L	0.0009	--
Copper	ug/l	5	mg/L	0.005	--
Iron	ug/l	300	mg/L	0.3	**1.44**

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Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO	GS21 20-Aug-2018 GS-21
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--
Magnesium	ug/l	--	mg/L	--	--
Manganese	ug/l	--	mg/L	--	0.033
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--
Molybdenum	ug/l	40	mg/L	0.04	--
Nickel	ug/l	25	mg/L	0.025	--
Potassium	ug/l	--	mg/L	--	--
Selenium	ug/l	100	mg/L	--	--
Silicon	ug/l	--	mg/L	--	--
Silver	ug/l	0.1	mg/L	0.0001	--
Sodium	ug/l	--	mg/L	--	27.5
Strontium	ug/l	--	mg/L	--	--
Sulfur	ug/l	--	mg/L	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--
Tin	ug/l	--	mg/L	--	--
Titanium	ug/l	--	mg/L	--	--
Vanadium	ug/l	6	mg/L	0.006	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--
Phenols					
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--
Field Measurements					
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	5.36
Conductivity (Field)	uS/cm	--	uS/cm	--	298
pH (Field)	-	8.5	-	8.5	8
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	22.2

Parameter	Unit (< June 2016)	(2) (1) PWQO	Unit (June 2017+)	(2) (1) PWQO		GS21 05-Nov-2018 GS-21	GS21 05-Nov-2018 GS-22 Dup	RDP
					RDP			
General Chemistry								
Alkalinity (Total as CaCO3)	ug/l	--(5)	mg/L	--(5)	NC	110	110	NC
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	NC	< 0.01	< 0.01	NC
Ammonia Nitrogen	ug/l	--	mg/L	--	NC	0.03	0.03	NC
Biochemical Oxygen Demand, 5 Day	ug/l	--	mg/L	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	mg/L	--	--	--	--	--
Chloride	ug/l	--	mg/L	120-640 (CWQG FW)	1%	37.2	37.2	NC
Color	color unit	--	color unit	--	--	--	--	--
Conductivity	umho/cm	--	umho/cm	--	--	--	--	--
Dissolved Organic Carbon	ug/l	--	mg/L	--	3%	6.7	6.8	1%
Hardness, Calcium Carbonate	ug/l	--	mg/L	--	3%	132	139	5%
Nitrate as N	ug/l	--	mg/L	13-550 (CWQG FW)	--	--	--	--
Nitrite as N	ug/l	--	mg/L	0.06 (CWQG FW)	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	mg/L	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--		--	--	--	--	--
Nitrogen, Organic	ug/l	--	mg/L	--	--	--	--	--
Phosphorus	ug/l	10-30(7)	mg/L	0.010 -0.030(7)	NC	**0.05**	**0.05**	NC
Sulphate	ug/l	--	mg/L	128-429 (BC FW)	--	--	--	--
Total Dissolved Solids	ug/l	--	mg/L	--	1%	210	215	2%
Total Organic Carbon	ug/l	--	mg/L	--	--	--	--	--
Total Suspended Solids	ug/l	--	mg/L	--	--	--	--	--
Turbidity	ntu	--(9)	ntu	--	--	--	--	--
Metals					--	--	--	--
Aluminum	ug/l	--(10)	mg/L	0.075	--	--	--	--
Aluminum, dissolved	ug/l	15-75(10)	mg/L	0.015-0.075(10)	--	--	--	--
Barium	ug/l	--	mg/L	--	--	--	--	--
Beryllium	ug/l	(11)	mg/L	0.011-1.1(11)	--	--	--	--
Boron	ug/l	200(12)	mg/L	0.2(12)	NC	0.035	0.036	3%
Cadmium	ug/l	0.2(13)	mg/L	0.0002(13)	--	--	--	--
Calcium	ug/l	--	mg/L	--	--	29.6	31	5%
Chromium	ug/l	--(14)	mg/L	--(14)	--	--	--	--
Cobalt	ug/l	0.9	mg/L	0.0009	--	--	--	--
Copper	ug/l	5	mg/L	0.005	--	--	--	--
Iron	ug/l	300	mg/L	0.3	4%	**0.746**	**0.993**	28%

Parameter	Unit (< June 2016)	[2] [1] PWQO	Unit (June 2017+)	[2] [1] PWQO		GS21 05-Nov-2018 GS-21	GS21 05-Nov-2018 GS-21	
Lead	ug/l	5-25 [15]	mg/L	0.005-0.025 [15]	--	--	--	--
Magnesium	ug/l	--	mg/L	--	--	14.2	15	5%
Manganese	ug/l	--	mg/L	--	3%	0.017	0.019	11%
Mercury, dissolved	ug/l	0.2 [16]	mg/L	0.0002 [16]	--	--	--	--
Molybdenum	ug/l	40	mg/L	0.04	--	--	--	--
Nickel	ug/l	25	mg/L	0.025	--	--	--	--
Potassium	ug/l	--	mg/L	--	--	--	--	--
Selenium	ug/l	100	mg/L	--	--	--	--	--
Silicon	ug/l	--	mg/L	--	--	--	--	--
Silver	ug/l	0.1	mg/L	0.0001	--	--	--	--
Sodium	ug/l	--	mg/L	--	1%	29.3	30.8	5%
Strontium	ug/l	--	mg/L	--	--	--	--	--
Sulfur	ug/l	--	mg/L	--	--	--	--	--
Thallium	ug/l	0.3 [17]	mg/L	0.0003 [17]	--	--	--	--
Tin	ug/l	--	mg/L	--	--	--	--	--
Titanium	ug/l	--	mg/L	--	--	--	--	--
Vanadium	ug/l	6	mg/L	0.006	--	--	--	--
Zinc	ug/l	30 [13]	mg/L	0.03 [13]	--	--	--	--
Phenols								
Phenolics, Total Recoverable	ug/l	1 [18]	mg/L	0.001 [18]	--	--	--	--
Field Measurements								
Dissolved Oxygen (Field)	ug/l	-- [6]	mg/L	-- [6]	NC	9.6	9.6	NC
Conductivity (Field)	uS/cm	--	uS/cm	--	NC	344	344	NC
pH (Field)	-	8.5	-	8.5	NC	7.5	7.5	NC
Temperature (Field)	deg c	-- [8]	deg c	-- [8]	NC	6.8	6.8	NC

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S3 14-Aug-1991	S3 04-Dec-1991	S3 29-Apr-1992 (4)	S3 06-Sep-1992 (4)	S3 28-Nov-1992 (4)
General Chemistry							
Chloride	ug/l	--	14000	<1000	--	--	--
Conductivity (Field)	uS/cm	--	289	247	--	--	--
Phosphate	ug/l	--	160	<100	--	--	--
Sulphate	ug/l	--	10000	9000	--	--	--
Total Dissolved Solids	ug/l	--	228000	80000	--	--	--
Metals							
Iron	ug/l	300	**1940**	**29030**	--	--	--
Manganese	ug/l	--	460	230	--	--	--
Sodium	ug/l	--	14000	4000	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S3 04-May-1993 (4)	S3 29-Aug-1993 (4)	S3 11-Nov-1993 (4)	S3 04-Jun-1994 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S3 07-Sep-1994 (4)	S3 24-Nov-1994 (4)	S3 28-May-1995 (4)	S3 11-Sep-1995 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S3 07-Nov-1995 (4)	S3 17-Jul-1996 (4)	S3 22-Nov-1996 (4)	S3 10-Jun-1997 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S3 09-Sep-1997 (4)	S3 11-Jun-1998 (4)	S3 20-Aug-1998 (4)	S3 25-May-1999 (4)	S3 31-Aug-1999 (4)
General Chemistry							
Chloride	ug/l	--	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--	--
Metals							
Iron	ug/l	300	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 14-Aug-1991	S4 04-Dec-1991 (25)	S4 29-Apr-1992 (4)	S4 06-Sep-1992 (4)
General Chemistry						
Chloride	ug/l	--	12000	--	--	--
Conductivity (Field)	uS/cm	--	272	--	--	--
Phosphate	ug/l	--	<100	--	--	--
Sulphate	ug/l	--	14000	--	--	--
Total Dissolved Solids	ug/l	--	200000	--	--	--
Metals						
Iron	ug/l	300	**1800**	--	--	--
Manganese	ug/l	--	240	--	--	--
Sodium	ug/l	--	8000	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 28-Nov-1992 (4)	S4 04-May-1993 (4)	S4 29-Aug-1993 (4)	S4 11-Nov-1993 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 04-Jun-1994 (4)	S4 07-Sep-1994 (4)	S4 24-Nov-1994 (4)	S4 28-May-1995 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 11-Sep-1995 (4)	S4 07-Nov-1995 (4)	S4 17-Jul-1996 (4)	S4 22-Nov-1996 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 10-Jun-1997 (4)	S4 09-Sep-1997 (4)	S4 11-Jun-1998 (4)	S4 20-Aug-1998 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S4 25-May-1999 (4)	S4 31-Aug-1999 (4)		
General Chemistry						
Chloride	ug/l	--	--	--		
Conductivity (Field)	uS/cm	--	--	--		
Phosphate	ug/l	--	--	--		
Sulphate	ug/l	--	--	--		
Total Dissolved Solids	ug/l	--	--	--		
Metals						
Iron	ug/l	300	--	--		
Manganese	ug/l	--	--	--		
Sodium	ug/l	--	--	--		

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S5 04-Dec-1991	S5 29-Apr-1992 (4)	S5 06-Sep-1992 (4)	S5 28-Nov-1992 (4)
General Chemistry						
Chloride	ug/l	--	16000	--	--	--
Conductivity (Field)	uS/cm	--	321	--	--	--
Phosphate	ug/l	--	330	--	--	--
Sulphate	ug/l	--	34000	--	--	--
Total Dissolved Solids	ug/l	--	160000	--	--	--
Metals						
Iron	ug/l	300	240	--	--	--
Manganese	ug/l	--	<50	--	--	--
Sodium	ug/l	--	15000	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S5 04-May-1993 (4)	S5 29-Aug-1993 (4)	S5 11-Nov-1993 (4)	S5 04-Jun-1994 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S5 07-Sep-1994 (4)	S5 24-Nov-1994 (4)	S5 28-May-1995 (4)	S5 11-Sep-1995 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S5 07-Nov-1995 (4)	S5 17-Jul-1996 (4)	S5 22-Nov-1996 (4)	S5 10-Jun-1997 (4)
General Chemistry						
Chloride	ug/l	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Metals						
Iron	ug/l	300	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	S5 09-Sep-1997 (4)	S5 11-Jun-1998 (4)	S5 20-Aug-1998 (4)	S5 25-May-1999 (4)	S5 31-Aug-1999 (4)
General Chemistry							
Chloride	ug/l	--	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--
Phosphate	ug/l	--	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--	--
Metals							
Iron	ug/l	300	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 29-Apr-1992	GS7 06-Sep-1992	GS7 28-Nov-1992	GS7 04-May-1993 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	48000	78000	70000	--
Ammonia, unionized	ug/l	20	<20	<20	<20	--
Ammonia Nitrogen	ug/l	--	<100	<100	80	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	2000	<1000	--
Chemical Oxygen Demand	ug/l	--	27000	28000	38000	--
Chloride	ug/l	--	1000	1000	6000	--
Color	color unit	--	140	83	189	--
Conductivity (Field)	uS/cm	--	163	190	160	--
Dissolved Oxygen (Field)	ug/l	--(6)	10600	7000	12400	--
Hardness, Calcium Carbonate	ug/l	--	65000	84000	84000	--
Nitrate as N	ug/l	--	200	<100	330	--
Nitrite as N	ug/l	--	<100	<100	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	500	400	440	--
Nitrogen, Organic	ug/l	--	500	400	360	--
pH (Field)	-	8.5	7.3	7.2	7	--
Phosphorus	ug/l	--(7)	**100**	**110**	<30	--
Sulphate	ug/l	--	13000	9000	12000	--
Temperature (Field)	deg c	--(8)	12	8.5	2	--
Total Dissolved Solids	ug/l	--	80000	110000	118000	--
Total Organic Carbon	ug/l	--	14300	9600	15000	--
Total Suspended Solids	ug/l	--	5000	36000	5000	--
Turbidity	ntu	--(9)	4	26	3.4	--
Metals						
Aluminum, dissolved	ug/l	--(10)	**690**	**1100**	**510**	--
Barium	ug/l	--	30	40	20	--
Beryllium	ug/l	--(11)	<10	<10	--	--
Boron	ug/l	200(12)	<10	<10	<10	--
Cadmium	ug/l	0.2(13)	<0.2	<0.15	<0.15	--
Calcium	ug/l	--	16000	22000	22000	--
Chromium	ug/l	--(14)	<10	30	<10	--
Cobalt	ug/l	0.9	<10	<10	--	--
Copper	ug/l	5	<5	**6**	<5	--
Iron	ug/l	300	**850**	**2160**	**980**	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 29-Apr-1992	GS7 06-Sep-1992	GS7 28-Nov-1992	GS7 04-May-1993 (4)
Lead	ug/l	-- (15)	<2	2	36	--
Magnesium	ug/l	--	6000	7000	7000	--
Manganese	ug/l	--	100	90	90	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	<0.2	<0.2	--
Molybdenum	ug/l	40	<10	<10	--	--
Nickel	ug/l	25	<10	<10	<10	--
Potassium	ug/l	--	<1000	3000	2000	--
Selenium	ug/l	100	<1	<1	<1	--
Silicon	ug/l	--	3500	6800	--	--
Silver	ug/l	0.1	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	3000	3000	6000	--
Strontium	ug/l	--	<10	80	70	--
Sulfur	ug/l	--	6000	3000	--	--
Thallium	ug/l	0.3 (17)	<50	<50	--	--
Tin	ug/l	--	<50	<50	--	--
Titanium	ug/l	--	20	<10	--	--
Vanadium	ug/l	6	<10	<10	--	--
Zinc	ug/l	30 (13)	30	<10	20	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	<1	<1	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 29-Aug-1993 (4)	GS7 11-Nov-1993 (4)	GS7 04-Jun-1994 (4)	GS7 07-Sep-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 29-Aug-1993 (4)	GS7 11-Nov-1993 (4)	GS7 04-Jun-1994 (4)	GS7 07-Sep-1994 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 24-Nov-1994 (4)	GS7 28-May-1995 (4)	GS7 11-Sep-1995 (4)	GS7 07-Nov-1995 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 24-Nov-1994 (4)	GS7 28-May-1995 (4)	GS7 11-Sep-1995 (4)	GS7 07-Nov-1995 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 17-Jul-1996 (4)	GS7 22-Nov-1996 (4)	GS7 10-Jun-1997 (4)	GS7 09-Sep-1997 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 17-Jul-1996 (4)	GS7 22-Nov-1996 (4)	GS7 10-Jun-1997 (4)	GS7 09-Sep-1997 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 11-Jun-1998 (4)	GS7 20-Aug-1998 (4)	GS7 25-May-1999 (4)	GS7 31-Aug-1999 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS7 11-Jun-1998 (4)	GS7 20-Aug-1998 (4)	GS7 25-May-1999 (4)	GS7 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 29-Apr-1992	GS8 06-Sep-1992	GS8 28-Nov-1992	GS8 04-May-1993 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	50000	104000	76000	--
Ammonia, unionized	ug/l	20	<20	<20	<20	--
Ammonia Nitrogen	ug/l	--	<100	<100	60	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	<1000	<1000	--
Chemical Oxygen Demand	ug/l	--	44000	25000	38000	--
Chloride	ug/l	--	4000	10000	14000	--
Color	color unit	--	128	55	176	--
Conductivity (Field)	uS/cm	--	175	260	200	--
Dissolved Oxygen (Field)	ug/l	--(6)	12000	10200	12800	--
Hardness, Calcium Carbonate	ug/l	--	69000	111000	85000	--
Nitrate as N	ug/l	--	170	<100	210	--
Nitrite as N	ug/l	--	<100	<100	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	440	570	530	--
Nitrogen, Organic	ug/l	--	440	570	470	--
pH (Field)	-	8.5	7.2	7.3	7.1	--
Phosphorus	ug/l	--(7)	**110**	**270**	**180**	--
Sulphate	ug/l	--	12000	6000	18000	--
Temperature (Field)	deg c	--(8)	6	8	2.5	--
Total Dissolved Solids	ug/l	--	90000	160000	126000	--
Total Organic Carbon	ug/l	--	13200	9100	14000	--
Total Suspended Solids	ug/l	--	9000	4000	16000	--
Turbidity	ntu	--(9)	8.7	5.5	13	--
Metals						
Aluminum, dissolved	ug/l	--(10)	**1180**	**530**	**1070**	--
Barium	ug/l	--	30	30	30	--
Beryllium	ug/l	--(11)	<10	<10	--	--
Boron	ug/l	200(12)	30	<10	10	--
Cadmium	ug/l	0.2(13)	<0.2	<0.15	<0.15	--
Calcium	ug/l	--	16000	28000	21000	--
Chromium	ug/l	--(14)	<10	20	<10	--
Cobalt	ug/l	0.9	<10	<10	--	--
Copper	ug/l	5	<5	<5	<5	--
Iron	ug/l	300	**1040**	**1180**	**1330**	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 29-Apr-1992	GS8 06-Sep-1992	GS8 28-Nov-1992	GS8 04-May-1993 (4)
Lead	ug/l	-- (15)	<2	<2	<2	--
Magnesium	ug/l	--	7000	10000	8000	--
Manganese	ug/l	--	90	70	60	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	<0.2	<0.2	--
Molybdenum	ug/l	40	<10	<10	--	--
Nickel	ug/l	25	<10	<10	<10	--
Potassium	ug/l	--	<1000	3000	3000	--
Selenium	ug/l	100	<1	<1	<1	--
Silicon	ug/l	--	3700	6900	--	--
Silver	ug/l	0.1	<0.1	<0.1	<0.1	--
Sodium	ug/l	--	5000	9000	9000	--
Strontium	ug/l	--	<10	110	80	--
Sulfur	ug/l	--	6000	3000	--	--
Thallium	ug/l	0.3 (17)	<50	<50	--	--
Tin	ug/l	--	<50	<50	--	--
Titanium	ug/l	--	30	<10	--	--
Vanadium	ug/l	6	<10	<10	--	--
Zinc	ug/l	30 (13)	<10	<10	10	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	<1	<1	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 29-Aug-1993 (4)	GS8 11-Nov-1993 (4)	GS8 04-Jun-1994 (4)	GS8 07-Sep-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 29-Aug-1993 (4)	GS8 11-Nov-1993 (4)	GS8 04-Jun-1994 (4)	GS8 07-Sep-1994 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 24-Nov-1994 (4)	GS8 28-May-1995 (4)	GS8 11-Sep-1995 (4)	GS8 07-Nov-1995 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 24-Nov-1994 (4)	GS8 28-May-1995 (4)	GS8 11-Sep-1995 (4)	GS8 07-Nov-1995 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 17-Jul-1996 (4)	GS8 22-Nov-1996 (4)	GS8 10-Jun-1997 (4)	GS8 09-Sep-1997 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 17-Jul-1996 (4)	GS8 22-Nov-1996 (4)	GS8 10-Jun-1997 (4)	GS8 09-Sep-1997 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 11-Jun-1998 (4)	GS8 20-Aug-1998 (4)	GS8 25-May-1999 (4)	GS8 31-Aug-1999 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS8 11-Jun-1998 (4)	GS8 20-Aug-1998 (4)	GS8 25-May-1999 (4)	GS8 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 29-Apr-1992	GS9 06-Sep-1992 (3)	GS9 28-Nov-1992 (3)	GS9 04-May-1993
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	150000	--	--	142000
Ammonia, unionized	ug/l	20	<20	--	--	<20
Ammonia Nitrogen	ug/l	--	2400	--	--	1000
Biochemical Oxygen Demand, 5 Day	ug/l	--	3000	--	--	1000
Chemical Oxygen Demand	ug/l	--	8000	--	--	16000
Chloride	ug/l	--	10000	--	--	6000
Color	color unit	--	8	--	--	11
Conductivity (Field)	uS/cm	--	510	--	--	380
Dissolved Oxygen (Field)	ug/l	--(6)	10600	--	--	**3800**
Hardness, Calcium Carbonate	ug/l	--	159000	--	--	141000
Nitrate as N	ug/l	--	940	--	--	150
Nitrite as N	ug/l	--	140	--	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	3500	--	--	4800
Nitrogen, Organic	ug/l	--	1100	--	--	3800
pH (Field)	-	8.5	6.8	--	--	6.5
Phosphorus	ug/l	--(7)	**70**	--	--	**60**
Sulphate	ug/l	--	37000	--	--	24000
Temperature (Field)	deg c	--(8)	9	--	--	14
Total Dissolved Solids	ug/l	--	240000	--	--	230000
Total Organic Carbon	ug/l	--	7000	--	--	5800
Total Suspended Solids	ug/l	--	55000	--	--	38000
Turbidity	ntu	--(9)	70	--	--	33
Metals						
Aluminum, dissolved	ug/l	--(10)	<30	--	--	**160**
Barium	ug/l	--	100	--	--	90
Beryllium	ug/l	--(11)	<10	--	--	<10
Boron	ug/l	200(12)	**240**	--	--	150
Cadmium	ug/l	0.2(13)	<0.2	--	--	<0.15
Calcium	ug/l	--	49000	--	--	45000
Chromium	ug/l	--(14)	<10	--	--	<10
Cobalt	ug/l	0.9	<10	--	--	<0.4
Copper	ug/l	5	<5	--	--	<5
Iron	ug/l	300	**28490**	--	--	**12580**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 29-Apr-1992	GS9 06-Sep-1992 (3)	GS9 28-Nov-1992 (3)	GS9 04-May-1993
Lead	ug/l	-- (15)	2	--	--	<2
Magnesium	ug/l	--	9000	--	--	7000
Manganese	ug/l	--	870	--	--	960
Mercury, dissolved	ug/l	0.2 (16)	<0.2	--	--	<0.2
Molybdenum	ug/l	40	<10	--	--	<10
Nickel	ug/l	25	<10	--	--	<10
Potassium	ug/l	--	12000	--	--	11000
Selenium	ug/l	100	<1	--	--	<1
Silicon	ug/l	--	4400	--	--	5700
Silver	ug/l	0.1	<0.1	--	--	<0.1
Sodium	ug/l	--	9000	--	--	12000
Strontium	ug/l	--	220	--	--	<7
Sulfur	ug/l	--	10000	--	--	10000
Thallium	ug/l	0.3 (17)	<50	--	--	<5
Tin	ug/l	--	<50	--	--	<50
Titanium	ug/l	--	<10	--	--	<10
Vanadium	ug/l	6	**20**	--	--	<7
Zinc	ug/l	30 (13)	<10	--	--	20
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	--	--	<1

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 29-Aug-1993 (3)	GS9 11-Nov-1993	GS9 04-Jun-1994 (4)	GS9 07-Sep-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	201000	--	--
Ammonia, unionized	ug/l	20	--	<20	--	--
Ammonia Nitrogen	ug/l	--	--	5330	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	39000	--	--
Chemical Oxygen Demand	ug/l	--	--	43000	--	--
Chloride	ug/l	--	--	14000	--	--
Color	color unit	--	--	9	--	--
Conductivity (Field)	uS/cm	--	--	675	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	**4200**	--	--
Hardness, Calcium Carbonate	ug/l	--	--	200000	--	--
Nitrate as N	ug/l	--	--	<100	--	--
Nitrite as N	ug/l	--	--	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	6270	--	--
Nitrogen, Organic	ug/l	--	--	940	--	--
pH (Field)	-	8.5	--	6.8	--	--
Phosphorus	ug/l	--(7)	--	<10	--	--
Sulphate	ug/l	--	--	38000	--	--
Temperature (Field)	deg c	--(8)	--	2	--	--
Total Dissolved Solids	ug/l	--	--	300000	--	--
Total Organic Carbon	ug/l	--	--	14000	--	--
Total Suspended Solids	ug/l	--	--	9000000	--	--
Turbidity	ntu	--(9)	--	>100	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	<30	--	--
Barium	ug/l	--	--	50	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	**300**	--	--
Cadmium	ug/l	0.2(13)	--	<0.15	--	--
Calcium	ug/l	--	--	62000	--	--
Chromium	ug/l	--(14)	--	<10	--	--
Cobalt	ug/l	0.9	--	<0.4	--	--
Copper	ug/l	5	--	<5	--	--
Iron	ug/l	300	--	**16410**	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 29-Aug-1993 (3)	GS9 11-Nov-1993	GS9 04-Jun-1994 (4)	GS9 07-Sep-1994 (4)
Lead	ug/l	-- (15)	--	<2	--	--
Magnesium	ug/l	--	--	11000	--	--
Manganese	ug/l	--	--	1240	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	<0.2	--	--
Molybdenum	ug/l	40	--	<10	--	--
Nickel	ug/l	25	--	<10	--	--
Potassium	ug/l	--	--	13000	--	--
Selenium	ug/l	100	--	<1	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	<0.1	--	--
Sodium	ug/l	--	--	15000	--	--
Strontium	ug/l	--	--	<7	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	<5	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	<7	--	--
Zinc	ug/l	30 (13)	--	<10	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	<1	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 24-Nov-1994 (4)	GS9 28-May-1995 (4)	GS9 11-Sep-1995 (4)	GS9 07-Nov-1995 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 24-Nov-1994 (4)	GS9 28-May-1995 (4)	GS9 11-Sep-1995 (4)	GS9 07-Nov-1995 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 17-Jul-1996 (4)	GS9 22-Nov-1996 (4)	GS9 10-Jun-1997 (4)	GS9 09-Sep-1997 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 17-Jul-1996 (4)	GS9 22-Nov-1996 (4)	GS9 10-Jun-1997 (4)	GS9 09-Sep-1997 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 11-Jun-1998 (4)	GS9 20-Aug-1998 (4)	GS9 25-May-1999 (4)	GS9 31-Aug-1999 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS9 11-Jun-1998 (4)	GS9 20-Aug-1998 (4)	GS9 25-May-1999 (4)	GS9 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 30-Apr-1992	GS10 06-Sep-1992 (3)	GS10 28-Nov-1992	GS10 04-May-1993
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	68000	--	76000	76000
Ammonia, unionized	ug/l	20	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	<100	--	140	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	--	<1000	<1000
Chemical Oxygen Demand	ug/l	--	5000	--	14000	10000
Chloride	ug/l	--	12000	--	29000	14000
Color	color unit	--	12	--	9	15
Conductivity (Field)	uS/cm	--	402	--	430	300
Dissolved Oxygen (Field)	ug/l	--(6)	13300	--	12200	10000
Hardness, Calcium Carbonate	ug/l	--	104000	--	178000	111000
Nitrate as N	ug/l	--	1530	--	3480	1500
Nitrite as N	ug/l	--	<100	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	460	--	450	440
Nitrogen, Organic	ug/l	--	460	--	310	400
pH (Field)	-	8.5	6.4	--	6.4	6.9
Phosphorus	ug/l	--(7)	<30	--	**40**	**40**
Sulphate	ug/l	--	42000	--	74000	49000
Temperature (Field)	deg c	--(8)	2	--	4	9.5
Total Dissolved Solids	ug/l	--	180000	--	320000	190000
Total Organic Carbon	ug/l	--	4700	--	4300	2600
Total Suspended Solids	ug/l	--	1000	--	14000	5000
Turbidity	ntu	--(9)	1.4	--	2.3	1.3
Metals						
Aluminum, dissolved	ug/l	--(10)	<30	--	**150**	50
Barium	ug/l	--	20	--	30	30
Beryllium	ug/l	--(11)	<10	--	--	<10
Boron	ug/l	200(12)	100	--	130	70
Cadmium	ug/l	0.2(13)	<0.2	--	0.18	<0.15
Calcium	ug/l	--	25000	--	45000	28000
Chromium	ug/l	--(14)	<10	--	<10	<10
Cobalt	ug/l	0.9	<10	--	--	<0.4
Copper	ug/l	5	**8**	--	<5	5
Iron	ug/l	300	140	--	**580**	260

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 30-Apr-1992	GS10 06-Sep-1992 (3)	GS10 28-Nov-1992	GS10 04-May-1993
Lead	ug/l	-- (15)	<2	--	<2	<2
Magnesium	ug/l	--	10000	--	16000	10000
Manganese	ug/l	--	50	--	230	<10
Mercury, dissolved	ug/l	0.2 (16)	<0.2	--	<0.2	<0.2
Molybdenum	ug/l	40	<10	--	--	<10
Nickel	ug/l	25	<10	--	<10	<10
Potassium	ug/l	--	3000	--	3000	3000
Selenium	ug/l	100	<1	--	<1	<1
Silicon	ug/l	--	3600	--	--	4600
Silver	ug/l	0.1	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	10000	--	14000	10000
Strontium	ug/l	--	70	--	260	<7
Sulfur	ug/l	--	11000	--	--	20000
Thallium	ug/l	0.3 (17)	<50	--	--	<5
Tin	ug/l	--	<50	--	--	<50
Titanium	ug/l	--	<10	--	--	<10
Vanadium	ug/l	6	<10	--	--	<7
Zinc	ug/l	30 (13)	<10	--	20	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	--	<1	<1

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 29-Aug-1993 (3)	GS10 11-Nov-1993	GS10 04-Jun-1994 (4)	GS10 07-Sep-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	90000	--	--
Ammonia, unionized	ug/l	20	--	<20	--	--
Ammonia Nitrogen	ug/l	--	--	30	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	<1000	--	--
Chemical Oxygen Demand	ug/l	--	--	10000	--	--
Chloride	ug/l	--	--	27000	--	--
Color	color unit	--	--	10	--	--
Conductivity (Field)	uS/cm	--	--	525	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	9200	--	--
Hardness, Calcium Carbonate	ug/l	--	--	162000	--	--
Nitrate as N	ug/l	--	--	1090	--	--
Nitrite as N	ug/l	--	--	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	500	--	--
Nitrogen, Organic	ug/l	--	--	470	--	--
pH (Field)	-	8.5	--	7.1	--	--
Phosphorus	ug/l	--(7)	--	<10	--	--
Sulphate	ug/l	--	--	61000	--	--
Temperature (Field)	deg c	--(8)	--	6	--	--
Total Dissolved Solids	ug/l	--	--	230000	--	--
Total Organic Carbon	ug/l	--	--	6000	--	--
Total Suspended Solids	ug/l	--	--	14000	--	--
Turbidity	ntu	--(9)	--	2.7	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	<30	--	--
Barium	ug/l	--	--	30	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	140	--	--
Cadmium	ug/l	0.2(13)	--	<0.15	--	--
Calcium	ug/l	--	--	40000	--	--
Chromium	ug/l	--(14)	--	<10	--	--
Cobalt	ug/l	0.9	--	<0.4	--	--
Copper	ug/l	5	--	<5	--	--
Iron	ug/l	300	--	<10	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 29-Aug-1993 (3)	GS10 11-Nov-1993	GS10 04-Jun-1994 (4)	GS10 07-Sep-1994 (4)
Lead	ug/l	-- (15)	--	<2	--	--
Magnesium	ug/l	--	--	15000	--	--
Manganese	ug/l	--	--	120	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	<0.2	--	--
Molybdenum	ug/l	40	--	<10	--	--
Nickel	ug/l	25	--	<10	--	--
Potassium	ug/l	--	--	2000	--	--
Selenium	ug/l	100	--	<1	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	<0.1	--	--
Sodium	ug/l	--	--	14000	--	--
Strontium	ug/l	--	--	<7	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	<5	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	<7	--	--
Zinc	ug/l	30 (13)	--	<10	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	<1	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 24-Nov-1994 (4)	GS10 28-May-1995 (4)	GS10 11-Sep-1995 (4)	GS10 07-Nov-1995 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 24-Nov-1994 (4)	GS10 28-May-1995 (4)	GS10 11-Sep-1995 (4)	GS10 07-Nov-1995 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 17-Jul-1996 (4)	GS10 22-Nov-1996 (4)	GS10 10-Jun-1997 (4)	GS10 09-Sep-1997 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 17-Jul-1996 (4)	GS10 22-Nov-1996 (4)	GS10 10-Jun-1997 (4)	GS10 09-Sep-1997 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 11-Jun-1998 (4)	GS10 20-Aug-1998 (4)	GS10 25-May-1999 (4)	GS10 31-Aug-1999 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10 11-Jun-1998 (4)	GS10 20-Aug-1998 (4)	GS10 25-May-1999 (4)	GS10 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 06-Sep-1992	GS10A 28-Nov-1992 (4)	GS10A 04-May-1993 (4)	GS10A 29-Aug-1993 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	62000	--	--	--
Ammonia, unionized	ug/l	20	<20	--	--	--
Ammonia Nitrogen	ug/l	--	<100	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	3000	--	--	--
Chemical Oxygen Demand	ug/l	--	35000	--	--	--
Chloride	ug/l	--	11000	--	--	--
Color	color unit	--	9	--	--	--
Conductivity (Field)	uS/cm	--	210	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	9000	--	--	--
Hardness, Calcium Carbonate	ug/l	--	78000	--	--	--
Nitrate as N	ug/l	--	<100	--	--	--
Nitrite as N	ug/l	--	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	780	--	--	--
Nitrogen, Organic	ug/l	--	780	--	--	--
pH (Field)	-	8.5	7.2	--	--	--
Phosphorus	ug/l	--(7)	30	--	--	--
Sulphate	ug/l	--	18000	--	--	--
Temperature (Field)	deg c	--(8)	14	--	--	--
Total Dissolved Solids	ug/l	--	120000	--	--	--
Total Organic Carbon	ug/l	--	9100	--	--	--
Total Suspended Solids	ug/l	--	12000	--	--	--
Turbidity	ntu	--(9)	3.8	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	**250**	--	--	--
Barium	ug/l	--	20	--	--	--
Beryllium	ug/l	--(11)	<10	--	--	--
Boron	ug/l	200(12)	80	--	--	--
Cadmium	ug/l	0.2(13)	<0.15	--	--	--
Calcium	ug/l	--	18000	--	--	--
Chromium	ug/l	--(14)	30	--	--	--
Cobalt	ug/l	0.9	<10	--	--	--
Copper	ug/l	5	<5	--	--	--
Iron	ug/l	300	**390**	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 06-Sep-1992	GS10A 28-Nov-1992 (4)	GS10A 04-May-1993 (4)	GS10A 29-Aug-1993 (4)
Lead	ug/l	-- (15)	<2	--	--	--
Magnesium	ug/l	--	8000	--	--	--
Manganese	ug/l	--	240	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	--	--	--
Molybdenum	ug/l	40	<10	--	--	--
Nickel	ug/l	25	<10	--	--	--
Potassium	ug/l	--	2000	--	--	--
Selenium	ug/l	100	<1	--	--	--
Silicon	ug/l	--	600	--	--	--
Silver	ug/l	0.1	<0.1	--	--	--
Sodium	ug/l	--	10000	--	--	--
Strontium	ug/l	--	100	--	--	--
Sulfur	ug/l	--	6000	--	--	--
Thallium	ug/l	0.3 (17)	<50	--	--	--
Tin	ug/l	--	<50	--	--	--
Titanium	ug/l	--	<10	--	--	--
Vanadium	ug/l	6	<10	--	--	--
Zinc	ug/l	30 (13)	<10	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 11-Nov-1993 (4)	GS10A 04-Jun-1994 (4)	GS10A 07-Sep-1994 (4)	GS10A 24-Nov-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 11-Nov-1993 (4)	GS10A 04-Jun-1994 (4)	GS10A 07-Sep-1994 (4)	GS10A 24-Nov-1994 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 28-May-1995 (4)	GS10A 11-Sep-1995 (4)	GS10A 07-Nov-1995 (4)	GS10A 17-Jul-1996 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 28-May-1995 (4)	GS10A 11-Sep-1995 (4)	GS10A 07-Nov-1995 (4)	GS10A 17-Jul-1996 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 22-Nov-1996 (4)	GS10A 10-Jun-1997 (4)	GS10A 09-Sep-1997 (4)	GS10A 11-Jun-1998 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 22-Nov-1996 (4)	GS10A 10-Jun-1997 (4)	GS10A 09-Sep-1997 (4)	GS10A 11-Jun-1998 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS10A 20-Aug-1998 (4)	GS10A 25-May-1999 (4)	GS10A 31-Aug-1999 (4)	
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	
Ammonia, unionized	ug/l	20	--	--	--	
Ammonia Nitrogen	ug/l	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	
Chemical Oxygen Demand	ug/l	--	--	--	--	
Chloride	ug/l	--	--	--	--	
Color	color unit	--	--	--	--	
Conductivity (Field)	uS/cm	--	--	--	--	
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	
Hardness, Calcium Carbonate	ug/l	--	--	--	--	
Nitrate as N	ug/l	--	--	--	--	
Nitrite as N	ug/l	--	--	--	--	
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	
Nitrogen, Organic	ug/l	--	--	--	--	
pH (Field)	-	8.5	--	--	--	
Phosphorus	ug/l	--(7)	--	--	--	
Sulphate	ug/l	--	--	--	--	
Temperature (Field)	deg c	--(8)	--	--	--	
Total Dissolved Solids	ug/l	--	--	--	--	
Total Organic Carbon	ug/l	--	--	--	--	
Total Suspended Solids	ug/l	--	--	--	--	
Turbidity	ntu	--(9)	--	--	--	
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	
Barium	ug/l	--	--	--	--	
Beryllium	ug/l	--(11)	--	--	--	
Boron	ug/l	200(12)	--	--	--	
Cadmium	ug/l	0.2(13)	--	--	--	
Calcium	ug/l	--	--	--	--	
Chromium	ug/l	--(14)	--	--	--	
Cobalt	ug/l	0.9	--	--	--	
Copper	ug/l	5	--	--	--	
Iron	ug/l	300	--	--	--	

Parameter	Unit	(2) (1) PWQO	GS10A 20-Aug-1998 (4)	GS10A 25-May-1999 (4)	GS10A 31-Aug-1999 (4)	
Lead	ug/l	-- (15)	--	--	--	
Magnesium	ug/l	--	--	--	--	
Manganese	ug/l	--	--	--	--	
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	
Molybdenum	ug/l	40	--	--	--	
Nickel	ug/l	25	--	--	--	
Potassium	ug/l	--	--	--	--	
Selenium	ug/l	100	--	--	--	
Silicon	ug/l	--	--	--	--	
Silver	ug/l	0.1	--	--	--	
Sodium	ug/l	--	--	--	--	
Strontium	ug/l	--	--	--	--	
Sulfur	ug/l	--	--	--	--	
Thallium	ug/l	0.3 (17)	--	--	--	
Tin	ug/l	--	--	--	--	
Titanium	ug/l	--	--	--	--	
Vanadium	ug/l	6	--	--	--	
Zinc	ug/l	30 (13)	--	--	--	
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 07-Sep-1992	GS13 28-Nov-1992	GS13 04-May-1993 (4)	GS13 29-Aug-1993 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	62000	68000	--	--
Ammonia, unionized	ug/l	20	<20	<20	--	--
Ammonia Nitrogen	ug/l	--	<100	30	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	3000	3000	--	--
Chemical Oxygen Demand	ug/l	--	30000	19000	--	--
Chloride	ug/l	--	13000	16000	--	--
Color	color unit	--	9	9	--	--
Conductivity (Field)	uS/cm	--	225	195	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	9400	13400	--	--
Hardness, Calcium Carbonate	ug/l	--	79000	78000	--	--
Nitrate as N	ug/l	--	<100	<100	--	--
Nitrite as N	ug/l	--	<100	<100	--	--
Nitrogen, Total Kjeldahl	ug/l	--	410	460	--	--
Nitrogen, Organic	ug/l	--	410	430	--	--
pH (Field)	-	8.5	7.3	7.1	--	--
Phosphorus	ug/l	--(7)	**40**	<30	--	--
Sulphate	ug/l	--	19000	21000	--	--
Temperature (Field)	deg c	--(8)	14	2.5	--	--
Total Dissolved Solids	ug/l	--	130000	141000	--	--
Total Organic Carbon	ug/l	--	8000	6900	--	--
Total Suspended Solids	ug/l	--	18000	8000	--	--
Turbidity	ntu	--(9)	5.5	3.4	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	**930**	**170**	--	--
Barium	ug/l	--	20	20	--	--
Beryllium	ug/l	--(11)	<10	--	--	--
Boron	ug/l	200(12)	90	50	--	--
Cadmium	ug/l	0.2(13)	<0.15	0.15	--	--
Calcium	ug/l	--	17000	18000	--	--
Chromium	ug/l	--(14)	20	<10	--	--
Cobalt	ug/l	0.9	<10	--	--	--
Copper	ug/l	5	<5	<5	--	--
Iron	ug/l	300	210	220	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 07-Sep-1992	GS13 28-Nov-1992	GS13 04-May-1993 (4)	GS13 29-Aug-1993 (4)
Lead	ug/l	-- (15)	<2	<2	--	--
Magnesium	ug/l	--	9000	8000	--	--
Manganese	ug/l	--	100	50	--	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	<0.2	--	--
Molybdenum	ug/l	40	<10	--	--	--
Nickel	ug/l	25	<10	<10	--	--
Potassium	ug/l	--	2000	2000	--	--
Selenium	ug/l	100	<1	<1	--	--
Silicon	ug/l	--	600	--	--	--
Silver	ug/l	0.1	<0.1	<0.1	--	--
Sodium	ug/l	--	10000	11000	--	--
Strontium	ug/l	--	100	100	--	--
Sulfur	ug/l	--	6000	--	--	--
Thallium	ug/l	0.3 (17)	<50	--	--	--
Tin	ug/l	--	<50	--	--	--
Titanium	ug/l	--	<10	--	--	--
Vanadium	ug/l	6	<10	--	--	--
Zinc	ug/l	30 (13)	<10	<10	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	<1	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 11-Nov-1993 (4)	GS13 04-Jun-1994 (4)	GS13 07-Sep-1994 (4)	GS13 24-Nov-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 11-Nov-1993 (4)	GS13 04-Jun-1994 (4)	GS13 07-Sep-1994 (4)	GS13 24-Nov-1994 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 28-May-1995 (4)	GS13 11-Sep-1995 (4)	GS13 07-Nov-1995 (4)	GS13 17-Jul-1996 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 28-May-1995 (4)	GS13 11-Sep-1995 (4)	GS13 07-Nov-1995 (4)	GS13 17-Jul-1996 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 22-Nov-1996 (4)	GS13 10-Jun-1997 (4)	GS13 09-Sep-1997 (4)	GS13 11-Jun-1998 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 22-Nov-1996 (4)	GS13 10-Jun-1997 (4)	GS13 09-Sep-1997 (4)	GS13 11-Jun-1998 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS13 20-Aug-1998 (4)	GS13 25-May-1999 (4)	GS13 31-Aug-1999 (4)	
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	
Ammonia, unionized	ug/l	20	--	--	--	
Ammonia Nitrogen	ug/l	--	--	--	--	
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	
Chemical Oxygen Demand	ug/l	--	--	--	--	
Chloride	ug/l	--	--	--	--	
Color	color unit	--	--	--	--	
Conductivity (Field)	uS/cm	--	--	--	--	
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	
Hardness, Calcium Carbonate	ug/l	--	--	--	--	
Nitrate as N	ug/l	--	--	--	--	
Nitrite as N	ug/l	--	--	--	--	
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	
Nitrogen, Organic	ug/l	--	--	--	--	
pH (Field)	-	8.5	--	--	--	
Phosphorus	ug/l	--(7)	--	--	--	
Sulphate	ug/l	--	--	--	--	
Temperature (Field)	deg c	--(8)	--	--	--	
Total Dissolved Solids	ug/l	--	--	--	--	
Total Organic Carbon	ug/l	--	--	--	--	
Total Suspended Solids	ug/l	--	--	--	--	
Turbidity	ntu	--(9)	--	--	--	
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	
Barium	ug/l	--	--	--	--	
Beryllium	ug/l	--(11)	--	--	--	
Boron	ug/l	200(12)	--	--	--	
Cadmium	ug/l	0.2(13)	--	--	--	
Calcium	ug/l	--	--	--	--	
Chromium	ug/l	--(14)	--	--	--	
Cobalt	ug/l	0.9	--	--	--	
Copper	ug/l	5	--	--	--	
Iron	ug/l	300	--	--	--	

Parameter	Unit	(2) (1) PWQO	GS13 20-Aug-1998 (4)	GS13 25-May-1999 (4)	GS13 31-Aug-1999 (4)	
Lead	ug/l	-- (15)	--	--	--	
Magnesium	ug/l	--	--	--	--	
Manganese	ug/l	--	--	--	--	
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	
Molybdenum	ug/l	40	--	--	--	
Nickel	ug/l	25	--	--	--	
Potassium	ug/l	--	--	--	--	
Selenium	ug/l	100	--	--	--	
Silicon	ug/l	--	--	--	--	
Silver	ug/l	0.1	--	--	--	
Sodium	ug/l	--	--	--	--	
Strontium	ug/l	--	--	--	--	
Sulfur	ug/l	--	--	--	--	
Thallium	ug/l	0.3 (17)	--	--	--	
Tin	ug/l	--	--	--	--	
Titanium	ug/l	--	--	--	--	
Vanadium	ug/l	6	--	--	--	
Zinc	ug/l	30 (13)	--	--	--	
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 07-Sep-1992	GS14 28-Nov-1992	GS14 04-May-1993	GS14 29-Aug-1993
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	54000	74000	63000	87000
Ammonia, unionized	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	170	20	240	260
Biochemical Oxygen Demand, 5 Day	ug/l	--	3000	3000	2000	1000
Chemical Oxygen Demand	ug/l	--	35000	19000	39000	44000
Chloride	ug/l	--	13000	15000	12000	16000
Color	color unit	--	55	11	119	162
Conductivity (Field)	uS/cm	--	220	205	220	180
Dissolved Organic Carbon	ug/l	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--[6]	**1800**	13200	6000	8200
Hardness, Calcium Carbonate	ug/l	--	75000	87000	69000	96000
Nitrate as N	ug/l	--	<100	<100	140	<100
Nitrite as N	ug/l	--	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	500	460	940	940
Nitrogen, Organic	ug/l	--	330	440	700	680
pH (Field)	-	8.5	6.5	6.9	5.9	6.7
Phosphorus	ug/l	--[7]	**90**	<30	**70**	**80**
Sulphate	ug/l	--	19000	25000	13000	7000
Temperature (Field)	deg c	--[8]	13	2.5	13	19
Total Dissolved Solids	ug/l	--	130000	143000	130000	140000
Total Organic Carbon	ug/l	--	11000	7700	16000	20000
Total Suspended Solids	ug/l	--	182000	29000	136000	2000
Turbidity	ntu	--[9]	41	4.3	2	1.8
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	**4900**	**220**	**90**	**480**
Barium	ug/l	--	70	20	30	<10
Beryllium	ug/l	--[11]	<10	--	<10	--
Boron	ug/l	200[12]	90	50	<10	80
Cadmium	ug/l	0.2[13]	<0.15	**0.24**	<0.15	<0.15
Calcium	ug/l	--	17000	20000	16000	22000
Chromium	ug/l	--[14]	30	<10	<10	<10
Cobalt	ug/l	0.9	<10	--	<0.4	<0.4
Copper	ug/l	5	**8**	<5	**6**	<5
Iron	ug/l	300	**3410**	170	**1640**	**1830**

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 07-Sep-1992	GS14 28-Nov-1992	GS14 04-May-1993	GS14 29-Aug-1993
Lead	ug/l	--[15]	2	<2	<2	<2
Magnesium	ug/l	--	8000	9000	7000	10000
Manganese	ug/l	--	220	40	180	280
Mercury, dissolved	ug/l	0.2[16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	<10	--	<10	<10
Nickel	ug/l	25	<10	<10	<10	<10
Potassium	ug/l	--	3000	2000	2000	2000
Selenium	ug/l	100	<1	<1	<1	<1
Silicon	ug/l	--	3900	--	3200	--
Silver	ug/l	0.1	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	11000	11000	11000	12000
Strontium	ug/l	--	130	110	<7	<7
Sulfur	ug/l	--	5000	--	6000	--
Thallium	ug/l	0.3[17]	<50	--	<5	<5
Tin	ug/l	--	<50	--	<50	--
Titanium	ug/l	--	<10	--	<10	--
Vanadium	ug/l	6	**30**	--	<7	<7
Zinc	ug/l	30[13]	<10	10	<10	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	**2**	<1	<1	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 11-Nov-1993	GS14 04-Jun-1994	GS14 07-Sep-1994	GS14 24-Nov-1994
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	69000	65000	130000	--
Ammonia, unionized	ug/l	20	--	<20	<20	--
Ammonia Nitrogen	ug/l	--	30	400	30	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	2000	<1000	3000	--
Chemical Oxygen Demand	ug/l	--	20000	50000	30000	--
Chloride	ug/l	--	17000	18000	18000	18000
Color	color unit	--	8	145	40	--
Conductivity (Field)	uS/cm	--	220	170	280	265
Dissolved Organic Carbon	ug/l	--	--	13800	11400	--
Dissolved Oxygen (Field)	ug/l	--[6]	11800	**1800**	**1500**	**1700**
Hardness, Calcium Carbonate	ug/l	--	91000	85000	160000	--
Nitrate as N	ug/l	--	<100	--	--	--
Nitrite as N	ug/l	--	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	430	--	--	--
Nitrogen, Organic	ug/l	--	400	--	--	--
pH (Field)	-	8.5	--	5.9	6.7	7
Phosphorus	ug/l	--[7]	<10	**130**	**40**	--
Sulphate	ug/l	--	21000	--	--	--
Temperature (Field)	deg c	--[8]	3	14.5	12	1.5
Total Dissolved Solids	ug/l	--	140000	120000	170000	--
Total Organic Carbon	ug/l	--	6800	--	--	--
Total Suspended Solids	ug/l	--	22000	--	--	--
Turbidity	ntu	--[9]	3.8	9	1.8	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	<30	**220**	<30	--
Barium	ug/l	--	<10	20	20	--
Beryllium	ug/l	--[11]	--	<10	<10	--
Boron	ug/l	200[12]	80	40	60	--
Cadmium	ug/l	0.2[13]	<0.15	<0.15	<0.15	--
Calcium	ug/l	--	20000	21000	46000	--
Chromium	ug/l	--[14]	<10	30	<10	--
Cobalt	ug/l	0.9	<0.4	**1.2**	<0.4	--
Copper	ug/l	5	<5	<5	<5	--
Iron	ug/l	300	<10	**1550**	**980**	**2610**

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 11-Nov-1993	GS14 04-Jun-1994	GS14 07-Sep-1994	GS14 24-Nov-1994
Lead	ug/l	--[15]	<2	<2	<2	--
Magnesium	ug/l	--	10000	8000	11000	--
Manganese	ug/l	--	<10	610	860	--
Mercury, dissolved	ug/l	0.2[16]	<0.2	<0.2	<0.2	--
Molybdenum	ug/l	40	<10	<10	<10	--
Nickel	ug/l	25	<10	<10	<10	--
Potassium	ug/l	--	2000	1000	1000	--
Selenium	ug/l	100	<1	--	--	--
Silicon	ug/l	--	--	2200	3600	--
Silver	ug/l	0.1	<0.1	<0.1	**0.2**	--
Sodium	ug/l	--	11000	6000	7000	--
Strontium	ug/l	--	<7	110	178	--
Sulfur	ug/l	--	--	3000	2000	--
Thallium	ug/l	0.3[17]	<5	<5	<5	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	<10	<10	--
Vanadium	ug/l	6	<7	<7	<7	--
Zinc	ug/l	30[13]	20	20	20	--
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	1	<1	--

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 28-May-1995	GS14 11-Sep-1995	GS14 07-Nov-1995	GS14 17-Jul-1996
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	83000	119000	--	73000
Ammonia, unionized	ug/l	20	<20	<20	--	<20
Ammonia Nitrogen	ug/l	--	460	110	--	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	1000	3000	--	<3000
Chemical Oxygen Demand	ug/l	--	36000	21000	--	21000
Chloride	ug/l	--	19000	21000	21000	23000
Color	color unit	--	86	14	--	5
Conductivity (Field)	uS/cm	--	215	315	275	160
Dissolved Organic Carbon	ug/l	--	13500	9100	--	7700
Dissolved Oxygen (Field)	ug/l	--[6]	**2100**	--[23]	--	8400
Hardness, Calcium Carbonate	ug/l	--	95000	127000	--	91000
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7	6.9	8.5	**8.7**
Phosphorus	ug/l	--[7]	**150**	**170**	10	**40**
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--[8]	11	14	7	23
Total Dissolved Solids	ug/l	--	136000	188000	--	152000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	**360**	**240**	**80**	**100**
Barium	ug/l	--	20	10	--	<10
Beryllium	ug/l	--[11]	<10	<10	--	<10
Boron	ug/l	200[12]	60	80	--	50
Cadmium	ug/l	0.2[13]	<0.15	<0.15	--	<0.15
Calcium	ug/l	--	23000	31000	--	20000
Chromium	ug/l	--[14]	<10	<10	--	<10
Cobalt	ug/l	0.9	0.7	0.4	--	<0.4
Copper	ug/l	5	<5	<5	--	<5
Iron	ug/l	300	**4730**	**1490**	30	120

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 28-May-1995	GS14 11-Sep-1995	GS14 07-Nov-1995	GS14 17-Jul-1996
Lead	ug/l	--[15]	<2	<2	--	<2
Magnesium	ug/l	--	9000	12000	--	10000
Manganese	ug/l	--	820	980	--	50
Mercury, dissolved	ug/l	0.2[16]	<0.2	<0.2	--	**0.7**
Molybdenum	ug/l	40	<10	<10	--	<10
Nickel	ug/l	25	<10	<10	--	<10
Potassium	ug/l	--	1000	2000	--	2000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	2500	7200	--	200
Silver	ug/l	0.1	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	11000	15000	--	13000
Strontium	ug/l	--	135	181	--	127
Sulfur	ug/l	--	<3000	3000	--	7000
Thallium	ug/l	0.3[17]	<10	<5	--	<5
Tin	ug/l	--	<50	--	--	--
Titanium	ug/l	--	10	<10	--	<10
Vanadium	ug/l	6	**8**	<7	--	<7
Zinc	ug/l	30[13]	<10	<10	--	20
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	<1	--	1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 22-Nov-1996	GS14 10-Jun-1997	GS14 09-Sep-1997	GS14 09-Jun-1998
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	80000	80000	86000	88000
Ammonia, unionized	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	20	130	30	70
Biochemical Oxygen Demand, 5 Day	ug/l	--	2000	5000	3000	4000
Chemical Oxygen Demand	ug/l	--	26000	27000	26000	21000
Chloride	ug/l	--	20000	17000	19000	21000
Color	color unit	--	3	7	6	14
Conductivity (Field)	uS/cm	--	180	395	230	200
Dissolved Organic Carbon	ug/l	--	7200	7400	9000	9000
Dissolved Oxygen (Field)	ug/l	--[6]	11800	10500	8600	8900
Hardness, Calcium Carbonate	ug/l	--	103000	38000	94000	101000
Nitrate as N	ug/l	--	--	--	--	170
Nitrite as N	ug/l	--	--	--	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	1930
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	6.6	7.3	6.8	8.11
Phosphorus	ug/l	--[7]	30	**60**	**50**	**80**
Sulphate	ug/l	--	--	--	--	15000
Temperature (Field)	deg c	--[8]	0.5	21	20	23
Total Dissolved Solids	ug/l	--	156000	148000	156000	148000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	50	**110**	**110**	<30
Barium	ug/l	--	20	<10	20	<10
Beryllium	ug/l	--[11]	10	<10	<10	<10
Boron	ug/l	200[12]	50	50	50	30
Cadmium	ug/l	0.2[13]	<0.15	<0.15	<0.15	<0.15
Calcium	ug/l	--	23000	21000	21000	24000
Chromium	ug/l	--[14]	<10	<10	<10	<10
Cobalt	ug/l	0.9	<0.4	<0.4	<0.4	<0.4
Copper	ug/l	5	<5	<5	**7**	<5
Iron	ug/l	300	140	190	120	10

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 22-Nov-1996	GS14 10-Jun-1997	GS14 09-Sep-1997	GS14 09-Jun-1998
Lead	ug/l	--[15]	<2	<2	<2	<2
Magnesium	ug/l	--	11000	8000	10000	10000
Manganese	ug/l	--	20	60	140	<10
Mercury, dissolved	ug/l	0.2[16]	<0.2	<0.2	<0.2	<0.2
Molybdenum	ug/l	40	<30	<10	<10	<10
Nickel	ug/l	25	<10	<10	<10	<10
Potassium	ug/l	--	2000	2000	2000	3000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	400	500	<100	400
Silver	ug/l	0.1	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	13000	11000	13000	12000
Strontium	ug/l	--	120	110	104	116
Sulfur	ug/l	--	<3000	6000	5000	6000
Thallium	ug/l	0.3[17]	<5	<5	<5	<5
Tin	ug/l	--	<50	--	<50	<50
Titanium	ug/l	--	<10	<10	<10	<10
Vanadium	ug/l	6	<7	<7	<7	<7
Zinc	ug/l	30[13]	<10	20	<10	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	<1	<1	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 20-Aug-1998	GS14 26-May-1999	GS14 31-Aug-1999	GS14 01-Jun-2000
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	87000	124000	138000	96000
Ammonia, unionized	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	<20	240	390	<20
Biochemical Oxygen Demand, 5 Day	ug/l	--	2000	2000	20000	4000
Chemical Oxygen Demand	ug/l	--	38000	20000	33000	20000
Chloride	ug/l	--	20000	23000	22000	14000
Color	color unit	--	6	37	11	8
Conductivity (Field)	uS/cm	--	210	230	265	220
Dissolved Organic Carbon	ug/l	--	7900	8300	9700	7700
Dissolved Oxygen (Field)	ug/l	--[6]	11200	**4100**	**1900**	7200
Hardness, Calcium Carbonate	ug/l	--	101000	116000	135000	99000
Nitrate as N	ug/l	--	<100	--	--	--
Nitrite as N	ug/l	--	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	1080	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	6.7	6.9	5.9	7.01
Phosphorus	ug/l	--[7]	**50**	**240**	**2480**	**50**
Sulphate	ug/l	--	11000	--	--	--
Temperature (Field)	deg c	--[8]	19	12	16	11
Total Dissolved Solids	ug/l	--	164000	176000	188000	160000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	40	<30	<30	**210**
Barium	ug/l	--	20	10	10	660
Beryllium	ug/l	--[11]	<10	<10	<10	<2
Boron	ug/l	200[12]	50	60	90	**360**
Cadmium	ug/l	0.2[13]	<0.15	<0.15	<0.15	<0.1
Calcium	ug/l	--	24000	30000	36000	23000
Chromium	ug/l	--[14]	<10	<10	<10	<10
Cobalt	ug/l	0.9	<0.4	0.8	**1.2**	<0.4
Copper	ug/l	5	**14000**	<5	<5	<10
Iron	ug/l	300	170	**4260**	**3380**	160

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 20-Aug-1998	GS14 26-May-1999	GS14 31-Aug-1999	GS14 01-Jun-2000
Lead	ug/l	--[15]	<2	<2	2	<2
Magnesium	ug/l	--	10000	10000	11000	10000
Manganese	ug/l	--	140	1510	1570	1180
Mercury, dissolved	ug/l	0.2[16]	<0.2	<0.2	<0.2	<0.1
Molybdenum	ug/l	40	<10	<10	<10	<10
Nickel	ug/l	25	<10	<10	<10	<10
Potassium	ug/l	--	3000	2000	3000	2000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	200	4400	5700	4010
Silver	ug/l	0.1	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	14000	13000	19000	13000
Strontium	ug/l	--	117	157	167	471
Sulfur	ug/l	--	6000	<3000	<3000	2000
Thallium	ug/l	0.3[17]	<5	<5	<5	<2
Tin	ug/l	--	<50	<50	<50	--
Titanium	ug/l	--	<10	<10	<10	<10
Vanadium	ug/l	6	<7	<7	<7	2
Zinc	ug/l	30[13]	<10	<10	<10	**210**
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	<1	<1	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 18-Aug-2000	GS14 05-Apr-2002	GS14 06-Aug-2002 [3]	GS14 01-Nov-2002
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	103000	86000	--	107000
Ammonia, unionized	ug/l	20	<20	<20	--	<20
Ammonia Nitrogen	ug/l	--	<20	100	--	30
Biochemical Oxygen Demand, 5 Day	ug/l	--	1000	2000	--	<1000
Chemical Oxygen Demand	ug/l	--	21000	9000	--	21000
Chloride	ug/l	--	18000	24000	--	47000
Color	color unit	--	5	--	--	--
Conductivity (Field)	uS/cm	--	255	290	--	320
Dissolved Organic Carbon	ug/l	--	9400	4200	--	8700
Dissolved Oxygen (Field)	ug/l	--[6]	6010	13210	--	9110
Hardness, Calcium Carbonate	ug/l	--	95000	104000	--	128000
Nitrate as N	ug/l	--	--	210	--	<100
Nitrite as N	ug/l	--	--	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	--	400	--	1080
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	8.3	6.3	--	6.6
Phosphorus	ug/l	--[7]	**50**	20	--	**50**
Sulphate	ug/l	--	--	29000	--	30000
Temperature (Field)	deg c	--[8]	22.4	3	--	3
Total Dissolved Solids	ug/l	--	184000	202000	--	280000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	**100**	<50	--	<10
Barium	ug/l	--	20	20	--	20
Beryllium	ug/l	--[11]	<2	<2	--	<1
Boron	ug/l	200[12]	60	<50	--	90
Cadmium	ug/l	0.2[13]	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	23000	25000	--	25000
Chromium	ug/l	--[14]	<10	<1	--	<1
Cobalt	ug/l	0.9	0.1	0.2	--	0.2
Copper	ug/l	5	1	1	--	1
Iron	ug/l	300	230	20	--	180

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 18-Aug-2000	GS14 05-Apr-2002	GS14 06-Aug-2002 [3]	GS14 01-Nov-2002
Lead	ug/l	-- [15]	<1	<1	--	<1
Magnesium	ug/l	--	9000	10000	--	16000
Manganese	ug/l	--	230	150	--	128
Mercury, dissolved	ug/l	0.2 [16]	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	<10	<10	--	<5
Nickel	ug/l	25	<10	<10	--	<5
Potassium	ug/l	--	2000	1000	--	3000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	560	1830	--	500
Silver	ug/l	0.1	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	14000	17000	--	24000
Strontium	ug/l	--	106	126	--	161
Sulfur	ug/l	--	4000	--	--	--
Thallium	ug/l	0.3 [17]	<1	<1	--	<1
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	<10	<10	--	<10
Vanadium	ug/l	6	2	<1	--	2
Zinc	ug/l	30 [13]	<10	<10	--	<5
Phenols						
Phenolics, Total Recoverable	ug/l	1 [18]	<1	<1	--	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 12-May-2003	GS14 26-Aug-2003 [3]	GS14 19-Nov-2003	GS14 26-May-2004
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	103000	--	106000	114000
Ammonia, unionized	ug/l	20	<20	--	<20	<20
Ammonia Nitrogen	ug/l	--	50	--	<20	120
Biochemical Oxygen Demand, 5 Day	ug/l	--	3000	--	<1000	1500
Chemical Oxygen Demand	ug/l	--	23000	--	24000	30000
Chloride	ug/l	--	40000	--	47000	53300
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	350	--	390	357
Dissolved Organic Carbon	ug/l	--	7000	--	8400	6200
Dissolved Oxygen (Field)	ug/l	--[6]	8850	--	**5880**	**3550**
Hardness, Calcium Carbonate	ug/l	--	136000	--	132000	142200
Nitrate as N	ug/l	--	<100	--	<100	<200
Nitrite as N	ug/l	--	<100	--	<100	<200
Nitrogen, Total Kjeldahl	ug/l	--	900	--	640	740
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.9	--	7.3	7.05
Phosphorus	ug/l	--[7]	**50**	--	**40**	**31**
Sulphate	ug/l	--	28000	--	21000	15300
Temperature (Field)	deg c	--[8]	15	--	2	18.9
Total Dissolved Solids	ug/l	--	248000	--	255000	254000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	365
Aluminum, dissolved	ug/l	--[10]	20	--	10	14
Barium	ug/l	--	20	--	10	23
Beryllium	ug/l	--[11]	<1	--	<1	<1
Boron	ug/l	200[12]	60	--	90	76
Cadmium	ug/l	0.2[13]	<0.1	--	<0.1	<0.1
Calcium	ug/l	--	33000	--	28000	31300
Chromium	ug/l	--[14]	2	--	1	<5
Cobalt	ug/l	0.9	0.3	--	<0.2	0.4
Copper	ug/l	5	1	--	<1	0.9
Iron	ug/l	300	150	--	170	**950**

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 12-May-2003	GS14 26-Aug-2003 [3]	GS14 19-Nov-2003	GS14 26-May-2004
Lead	ug/l	--[15]	<1	--	<1	<0.5
Magnesium	ug/l	--	13000	--	15000	15500
Manganese	ug/l	--	136	--	20	144
Mercury, dissolved	ug/l	0.2[16]	<0.1	--	<0.1	<0.1
Molybdenum	ug/l	40	<5	--	<5	<1
Nickel	ug/l	25	<5	--	<5	2
Potassium	ug/l	--	3000	--	4000	2500
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	200	--	1000	980
Silver	ug/l	0.1	<0.1	--	<0.1	<0.1
Sodium	ug/l	--	18000	--	23000	22800
Strontium	ug/l	--	165	--	167	177
Sulfur	ug/l	--	--	--	--	5300
Thallium	ug/l	0.3[17]	<1	--	<1	<0.05
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	<10	--	<10	19
Vanadium	ug/l	6	1	--	<1	1.6
Zinc	ug/l	30[13]	<5	--	<10	<5
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	--	<1	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 28-Aug-2004	GS14 25-Nov-2004	GS14 26-May-2005	GS14 26-Aug-2005
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	135000	135000	134000	122000
Ammonia, unionized	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	30	70	40	50
Biochemical Oxygen Demand, 5 Day	ug/l	--	1000	700	3000	4000
Chemical Oxygen Demand	ug/l	--	38000	26000	25000	46000
Chloride	ug/l	--	88700	63900	136000	195000
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	395	555	749	950
Dissolved Organic Carbon	ug/l	--	10800	7900	10300	15900
Dissolved Oxygen (Field)	ug/l	--[6]	7860	9000	9090	9070
Hardness, Calcium Carbonate	ug/l	--	187600	166300	216000	212000
Nitrate as N	ug/l	--	<200	<200	<100	<100
Nitrite as N	ug/l	--	<200	<200	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	940	740	1170	2180
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.3	7.1	7.4	6.9
Phosphorus	ug/l	--[7]	14	7	**40**	30
Sulphate	ug/l	--	18100	20900	29000	30000
Temperature (Field)	deg c	--[8]	16	2	8	33.2
Total Dissolved Solids	ug/l	--	334000	304000	487000	636000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	**137**	62	20	40
Barium	ug/l	--	28	26	30	40
Beryllium	ug/l	--[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	106	83	130	**320**
Cadmium	ug/l	0.2[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	38900	40000	47000	37000
Chromium	ug/l	--[14]	<5	<5	1	9
Cobalt	ug/l	0.9	0.1	<0.1	0.2	0.3
Copper	ug/l	5	0.7	<0.5	<1	1
Iron	ug/l	300	260	110	190	200

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 28-Aug-2004	GS14 25-Nov-2004	GS14 26-May-2005	GS14 26-Aug-2005
Lead	ug/l	--[15]	<0.5	<0.5	<1	<1
Magnesium	ug/l	--	21900	16100	24000	29000
Manganese	ug/l	--	152	43	270	110
Mercury, dissolved	ug/l	0.2[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	<1	<1	<5	<5
Nickel	ug/l	25	2	1	<5	<5
Potassium	ug/l	--	3800	3200	3000	8000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	410	170	300	300
Silver	ug/l	0.1	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	40000	29400	55000	93000
Strontium	ug/l	--	240	217	252	307
Sulfur	ug/l	--	6100	7200	9700	10000
Thallium	ug/l	0.3[17]	<0.05	<0.05	<0.1	<0.1
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	7	<5	<10	<10
Vanadium	ug/l	6	1.1	<0.5	2	3
Zinc	ug/l	30[13]	<5	<5	<10	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	**2**	<1	<1	<1

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 15-Nov-2005	GS14 01-Jun-2006	GS14 06-Sep-2006	GS14 20-Nov-2006
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	182000	242000	218000	264000
Ammonia, unionized	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	50	50	160	2090
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	5000	2000	14000
Chemical Oxygen Demand	ug/l	--	28000	48000	49000	66000
Chloride	ug/l	--	100000	58000	63000	63000
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	430	550	510	400
Dissolved Organic Carbon	ug/l	--	10900	17600	17600	22700
Dissolved Oxygen (Field)	ug/l	--[6]	7200	--	11040	10400
Hardness, Calcium Carbonate	ug/l	--	253000	248000	217000	249000
Nitrate as N	ug/l	--	<100	<100	<100	130
Nitrite as N	ug/l	--	<100	<100	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	970	1550	1860	3040
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.7	8.4	7.3	7.2
Phosphorus	ug/l	--[7]	**60**	**50**	20	**40**
Sulphate	ug/l	--	35000	20000	18000	20000
Temperature (Field)	deg c	--[8]	8.5	25.5	10	2
Total Dissolved Solids	ug/l	--	483000	426000	424000	484000
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--[9]	--	--	--	--
Metals						
Aluminum	ug/l	--[10]	--	--	--	--
Aluminum, dissolved	ug/l	--[10]	20	**340**	10	<10
Barium	ug/l	--	40	40	40	40
Beryllium	ug/l	--[11]	<1	<1	<1	<1
Boron	ug/l	200[12]	190	**290**	**410**	**490**
Cadmium	ug/l	0.2[13]	<0.1	<0.1	<0.1	<0.1
Calcium	ug/l	--	60000	63000	49000	60000
Chromium	ug/l	--[14]	3	5	3	1
Cobalt	ug/l	0.9	0.4	0.5	0.3	0.3
Copper	ug/l	5	2	<1	<1	<1
Iron	ug/l	300	270	**490**	100	240

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 15-Nov-2005	GS14 01-Jun-2006	GS14 06-Sep-2006	GS14 20-Nov-2006
Lead	ug/l	--[15]	<1	<1	<1	<1
Magnesium	ug/l	--	25000	22000	23000	24000
Manganese	ug/l	--	70	170	110	160
Mercury, dissolved	ug/l	0.2[16]	<0.1	<0.1	<0.1	<0.1
Molybdenum	ug/l	40	<5	<5	<5	<5
Nickel	ug/l	25	<5	<5	<5	5
Potassium	ug/l	--	4000	7000	9000	10000
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	1400	1100	700	1700
Silver	ug/l	0.1	<0.1	<0.1	<0.1	<0.1
Sodium	ug/l	--	54000	33000	42000	43000
Strontium	ug/l	--	272	279	329	331
Sulfur	ug/l	--	11700	6700	6000	6700
Thallium	ug/l	0.3[17]	<0.1	<0.1	<0.1	<0.1
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	<10	10	<10	<10
Vanadium	ug/l	6	3	2	2	1
Zinc	ug/l	30[13]	<10	10	<10	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	1	<1	**5**

SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 31-May-2007	GS14 23-Aug-2007	GS14 25-Nov-2007	
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--[5]	298000	198000	192000	
Ammonia, unionized	ug/l	20	**502.84**	<20	<20	
Ammonia Nitrogen	ug/l	--	2360	260	50	
Biochemical Oxygen Demand, 5 Day	ug/l	--	--[22]	6000	--	
Chemical Oxygen Demand	ug/l	--	62000	29000	--	
Chloride	ug/l	--	66000	68000	75000	
Color	color unit	--	--	--	--	
Conductivity (Field)	uS/cm	--	500	700	550	
Dissolved Organic Carbon	ug/l	--	20200	18000	17200	
Dissolved Oxygen (Field)	ug/l	--[6]	7310	**3390**	--	
Hardness, Calcium Carbonate	ug/l	--	311000	211000	209000	
Nitrate as N	ug/l	--	400	<100	--	
Nitrite as N	ug/l	--	<100	<100	--	
Nitrogen, Total Kjeldahl	ug/l	--	6460	2280	--	
Nitrogen, Organic	ug/l	--	--	--	--	
pH (Field)	-	8.5	**8.8**	7.5	7.7	
Phosphorus	ug/l	--[7]	**120**	**50**	**40**	
Sulphate	ug/l	--	27000	32000	--	
Temperature (Field)	deg c	--[8]	21.1	20.9	3.1	
Total Dissolved Solids	ug/l	--	525000	432000	442000	
Total Organic Carbon	ug/l	--	--	--	--	
Total Suspended Solids	ug/l	--	--	--	--	
Turbidity	ntu	--[9]	--	--	--	
Metals						
Aluminum	ug/l	--[10]	--	--	--	
Aluminum, dissolved	ug/l	--[10]	10	20	--	
Barium	ug/l	--	50	40	--	
Beryllium	ug/l	--[11]	<1	<1	--	
Boron	ug/l	200[12]	**620**	**880**	**710**	
Cadmium	ug/l	0.2[13]	<0.1	<0.1	--	
Calcium	ug/l	--	75000	40000	39000	
Chromium	ug/l	--[14]	2	3	--	
Cobalt	ug/l	0.9	0.5	0.3	--	
Copper	ug/l	5	<1	<1	--	
Iron	ug/l	300	280	270	80	

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SURFACE WATER DATA

Parameter	Unit	[2] [1] PWQO	GS14 31-May-2007	GS14 23-Aug-2007	GS14 25-Nov-2007	
Lead	ug/l	--[15]	<1	<1	--	
Magnesium	ug/l	--	30000	27000	27000	
Manganese	ug/l	--	290	220	30	
Mercury, dissolved	ug/l	0.2[16]	<0.1	<0.1	--	
Molybdenum	ug/l	40	<5	<5	--	
Nickel	ug/l	25	<5	<5	--	
Potassium	ug/l	--	12000	10000	--	
Selenium	ug/l	100	--	--	--	
Silicon	ug/l	--	1500	500	--	
Silver	ug/l	0.1	<0.1	<0.1	--	
Sodium	ug/l	--	51000	51000	48000	
Strontium	ug/l	--	370	291	--	
Sulfur	ug/l	--	9000	10700	--	
Thallium	ug/l	0.3[17]	0.2	<0.1	--	
Tin	ug/l	--	--	--	--	
Titanium	ug/l	--	<10	<10	--	
Vanadium	ug/l	6	2	4	--	
Zinc	ug/l	30[13]	<10	<10	--	
Phenols						
Phenolics, Total Recoverable	ug/l	1[18]	<1	<1	--	

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 08-Sep-1992 (3)	GS16 28-Nov-1992 (3)	GS16 04-May-1993	GS16 29-Aug-1993
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	101000	61000
Ammonia, unionized	ug/l	20	--	--	<20	<20
Ammonia Nitrogen	ug/l	--	--	--	10	<10
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	<1000	1000
Chemical Oxygen Demand	ug/l	--	--	--	5000	10000
Chloride	ug/l	--	--	--	6000	24000
Color	color unit	--	--	--	11	10
Conductivity (Field)	uS/cm	--	--	--	260	240
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	10400	10000
Hardness, Calcium Carbonate	ug/l	--	--	--	103000	96000
Nitrate as N	ug/l	--	--	--	<100	<100
Nitrite as N	ug/l	--	--	--	<100	<100
Nitrogen, Total Kjeldahl	ug/l	--	--	--	90	160
Nitrogen, Organic	ug/l	--	--	--	80	160
pH (Field)	-	8.5	--	--	6.5	7.6
Phosphorus	ug/l	--(7)	--	--	**130**	20
Sulphate	ug/l	--	--	--	23000	24000
Temperature (Field)	deg c	--(8)	--	--	10.5	18
Total Dissolved Solids	ug/l	--	--	--	150000	170000
Total Organic Carbon	ug/l	--	--	--	6400	4200
Total Suspended Solids	ug/l	--	--	--	2000	6000
Turbidity	ntu	--(9)	--	--	2.9	3.3
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	**230**	<30
Barium	ug/l	--	--	--	30	30
Beryllium	ug/l	--(11)	--	--	<10	--
Boron	ug/l	200(12)	--	--	<10	90
Cadmium	ug/l	0.2(13)	--	--	<0.15	<0.15
Calcium	ug/l	--	--	--	23000	22000
Chromium	ug/l	--(14)	--	--	<10	<10
Cobalt	ug/l	0.9	--	--	<0.4	<0.4
Copper	ug/l	5	--	--	<5	<5
Iron	ug/l	300	--	--	200	<10

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 08-Sep-1992 (3)	GS16 28-Nov-1992 (3)	GS16 04-May-1993	GS16 29-Aug-1993
Lead	ug/l	-- (15)	--	--	<2	<2
Magnesium	ug/l	--	--	--	11000	10000
Manganese	ug/l	--	--	--	<10	<10
Mercury, dissolved	ug/l	0.2 (16)	--	--	<0.2	<0.2
Molybdenum	ug/l	40	--	--	<10	<10
Nickel	ug/l	25	--	--	<10	<10
Potassium	ug/l	--	--	--	2000	1000
Selenium	ug/l	100	--	--	<1	<1
Silicon	ug/l	--	--	--	4100	--
Silver	ug/l	0.1	--	--	<0.1	<0.1
Sodium	ug/l	--	--	--	6000	14000
Strontium	ug/l	--	--	--	<7	<7
Sulfur	ug/l	--	--	--	10000	--
Thallium	ug/l	0.3 (17)	--	--	<5	<5
Tin	ug/l	--	--	--	<50	--
Titanium	ug/l	--	--	--	<10	--
Vanadium	ug/l	6	--	--	<7	<7
Zinc	ug/l	30 (13)	--	--	<10	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	<1	<1

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 11-Nov-1993	GS16 04-Jun-1994 (4)	GS16 07-Sep-1994 (4)	GS16 24-Nov-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	66000	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	90	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	2000	--	--	--
Chemical Oxygen Demand	ug/l	--	23000	--	--	--
Chloride	ug/l	--	17000	--	--	--
Color	color unit	--	7	--	--	--
Conductivity (Field)	uS/cm	--	215	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	12200	--	--	--
Hardness, Calcium Carbonate	ug/l	--	94000	--	--	--
Nitrate as N	ug/l	--	190	--	--	--
Nitrite as N	ug/l	--	<100	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	500	--	--	--
Nitrogen, Organic	ug/l	--	410	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	<10	--	--	--
Sulphate	ug/l	--	20000	--	--	--
Temperature (Field)	deg c	--(8)	2.5	--	--	--
Total Dissolved Solids	ug/l	--	140000	--	--	--
Total Organic Carbon	ug/l	--	7100	--	--	--
Total Suspended Solids	ug/l	--	6000	--	--	--
Turbidity	ntu	--(9)	2.4	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	<30	--	--	--
Barium	ug/l	--	<10	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	<10	--	--	--
Cadmium	ug/l	0.2(13)	<0.15	--	--	--
Calcium	ug/l	--	21000	--	--	--
Chromium	ug/l	--(14)	<10	--	--	--
Cobalt	ug/l	0.9	<0.4	--	--	--
Copper	ug/l	5	<5	--	--	--
Iron	ug/l	300	<10	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 11-Nov-1993	GS16 04-Jun-1994 (4)	GS16 07-Sep-1994 (4)	GS16 24-Nov-1994 (4)
Lead	ug/l	-- (15)	<2	--	--	--
Magnesium	ug/l	--	10000	--	--	--
Manganese	ug/l	--	10	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	--	--	--
Molybdenum	ug/l	40	<10	--	--	--
Nickel	ug/l	25	<10	--	--	--
Potassium	ug/l	--	2000	--	--	--
Selenium	ug/l	100	<1	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	<0.1	--	--	--
Sodium	ug/l	--	11000	--	--	--
Strontium	ug/l	--	<7	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	<5	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	<7	--	--	--
Zinc	ug/l	30 (13)	<10	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 28-May-1995 (4)	GS16 11-Sep-1995 (4)	GS16 07-Nov-1995 (4)	GS16 17-Jul-1996 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 28-May-1995 (4)	GS16 11-Sep-1995 (4)	GS16 07-Nov-1995 (4)	GS16 17-Jul-1996 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 22-Nov-1996 (4)	GS16 10-Jun-1997 (4)	GS16 09-Sep-1997 (4)	GS16 25-May-1999 (4)	GS16 31-Aug-1999 (4)
General Chemistry							
Alkalinity (Total as CaCO3)	ug/l	-- (5)	--	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--	--
Color	color unit	--	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	-- (6)	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--	--
Phosphorus	ug/l	-- (7)	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--	--
Temperature (Field)	deg c	-- (8)	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--	--
Turbidity	ntu	-- (9)	--	--	--	--	--
Metals							
Aluminum, dissolved	ug/l	-- (10)	--	--	--	--	--
Barium	ug/l	--	--	--	--	--	--
Beryllium	ug/l	-- (11)	--	--	--	--	--
Boron	ug/l	200 (12)	--	--	--	--	--
Cadmium	ug/l	0.2 (13)	--	--	--	--	--
Calcium	ug/l	--	--	--	--	--	--
Chromium	ug/l	-- (14)	--	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--	--
Copper	ug/l	5	--	--	--	--	--
Iron	ug/l	300	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS16 22-Nov-1996 (4)	GS16 10-Jun-1997 (4)	GS16 09-Sep-1997 (4)	GS16 25-May-1999 (4)	GS16 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--	--
Magnesium	ug/l	--	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--	--
Nickel	ug/l	25	--	--	--	--	--
Potassium	ug/l	--	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--	--
Tin	ug/l	--	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--	--
Phenols							
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 04-May-1993	GS18 29-Aug-1993 (3)	GS18 11-Nov-1993	GS18 04-Jun-1994 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	118000	--	196000	--
Ammonia, unionized	ug/l	20	<20	--	<20	--
Ammonia Nitrogen	ug/l	--	640	--	270	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	--	7000	--
Chemical Oxygen Demand	ug/l	--	13000	--	25000	--
Chloride	ug/l	--	17000	--	40000	--
Color	color unit	--	9	--	9	--
Conductivity (Field)	uS/cm	--	420	--	800	--
Dissolved Oxygen (Field)	ug/l	--(6)	**4000**	--	**5300**	--
Hardness, Calcium Carbonate	ug/l	--	181000	--	320000	--
Nitrate as N	ug/l	--	850	--	1400	--
Nitrite as N	ug/l	--	<100	--	<100	--
Nitrogen, Total Kjeldahl	ug/l	--	950	--	800	--
Nitrogen, Organic	ug/l	--	310	--	530	--
pH (Field)	-	8.5	6.6	--	7.1	--
Phosphorus	ug/l	--(7)	**70**	--	<10	--
Sulphate	ug/l	--	72000	--	115000	--
Temperature (Field)	deg c	--(8)	13	--	3	--
Total Dissolved Solids	ug/l	--	260000	--	430000	--
Total Organic Carbon	ug/l	--	8900	--	10000	--
Total Suspended Solids	ug/l	--	2000	--	196000	--
Turbidity	ntu	--(9)	0.4	--	1.6	--
Metals						
Aluminum, dissolved	ug/l	--(10)	**240**	--	<30	--
Barium	ug/l	--	40	--	40	--
Beryllium	ug/l	--(11)	<10	--	--	--
Boron	ug/l	200(12)	190	--	**340**	--
Cadmium	ug/l	0.2(13)	<0.15	--	<0.15	--
Calcium	ug/l	--	51000	--	87000	--
Chromium	ug/l	--(14)	<10	--	100	--
Cobalt	ug/l	0.9	<0.4	--	<0.4	--
Copper	ug/l	5	<5	--	<5	--
Iron	ug/l	300	**360**	--	<10	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 04-May-1993	GS18 29-Aug-1993 (3)	GS18 11-Nov-1993	GS18 04-Jun-1994 (4)
Lead	ug/l	-- (15)	<2	--	<2	--
Magnesium	ug/l	--	13000	--	25000	--
Manganese	ug/l	--	<10	--	<10	--
Mercury, dissolved	ug/l	0.2 (16)	<0.2	--	<0.2	--
Molybdenum	ug/l	40	<10	--	<10	--
Nickel	ug/l	25	<10	--	<10	--
Potassium	ug/l	--	7000	--	7000	--
Selenium	ug/l	100	<1	--	12	--
Silicon	ug/l	--	5300	--	--	--
Silver	ug/l	0.1	<0.1	--	<0.1	--
Sodium	ug/l	--	14000	--	24000	--
Strontium	ug/l	--	<7	--	<7	--
Sulfur	ug/l	--	29000	--	--	--
Thallium	ug/l	0.3 (17)	<5	--	<5	--
Tin	ug/l	--	<50	--	--	--
Titanium	ug/l	--	<10	--	--	--
Vanadium	ug/l	6	<7	--	<7	--
Zinc	ug/l	30 (13)	<10	--	<10	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	--	<1	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 07-Sep-1994 (4)	GS18 24-Nov-1994 (4)	GS18 28-May-1995 (4)	GS18 11-Sep-1995 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 07-Sep-1994 (4)	GS18 24-Nov-1994 (4)	GS18 28-May-1995 (4)	GS18 11-Sep-1995 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 07-Nov-1995 (4)	GS18 17-Jul-1996 (4)	GS18 22-Nov-1996 (4)	GS18 10-Jun-1997 (4)
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--
Color	color unit	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	--(6)	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--
Turbidity	ntu	--(9)	--	--	--	--
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 07-Nov-1995 (4)	GS18 17-Jul-1996 (4)	GS18 22-Nov-1996 (4)	GS18 10-Jun-1997 (4)
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Tin	ug/l	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

Parameter	Unit	(2) (1) PWQO	GS18 09-Sep-1997 (4)	GS18 11-Jun-1998 (4)	GS18 20-Aug-1998 (4)	GS18 25-May-1999 (4)	GS18 31-Aug-1999 (4)
General Chemistry							
Alkalinity (Total as CaCO3)	ug/l	-- (5)	--	--	--	--	--
Ammonia, unionized	ug/l	20	--	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	--	--	--	--	--
Chloride	ug/l	--	--	--	--	--	--
Color	color unit	--	--	--	--	--	--
Conductivity (Field)	uS/cm	--	--	--	--	--	--
Dissolved Oxygen (Field)	ug/l	-- (6)	--	--	--	--	--
Hardness, Calcium Carbonate	ug/l	--	--	--	--	--	--
Nitrate as N	ug/l	--	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--	--
Nitrogen, Organic	ug/l	--	--	--	--	--	--
pH (Field)	-	8.5	--	--	--	--	--
Phosphorus	ug/l	-- (7)	--	--	--	--	--
Sulphate	ug/l	--	--	--	--	--	--
Temperature (Field)	deg c	-- (8)	--	--	--	--	--
Total Dissolved Solids	ug/l	--	--	--	--	--	--
Total Organic Carbon	ug/l	--	--	--	--	--	--
Total Suspended Solids	ug/l	--	--	--	--	--	--
Turbidity	ntu	-- (9)	--	--	--	--	--
Metals							
Aluminum, dissolved	ug/l	-- (10)	--	--	--	--	--
Barium	ug/l	--	--	--	--	--	--
Beryllium	ug/l	-- (11)	--	--	--	--	--
Boron	ug/l	200 (12)	--	--	--	--	--
Cadmium	ug/l	0.2 (13)	--	--	--	--	--
Calcium	ug/l	--	--	--	--	--	--
Chromium	ug/l	-- (14)	--	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--	--
Copper	ug/l	5	--	--	--	--	--
Iron	ug/l	300	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS18 09-Sep-1997 (4)	GS18 11-Jun-1998 (4)	GS18 20-Aug-1998 (4)	GS18 25-May-1999 (4)	GS18 31-Aug-1999 (4)
Lead	ug/l	-- (15)	--	--	--	--	--
Magnesium	ug/l	--	--	--	--	--	--
Manganese	ug/l	--	--	--	--	--	--
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--	--
Nickel	ug/l	25	--	--	--	--	--
Potassium	ug/l	--	--	--	--	--	--
Selenium	ug/l	100	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--	--
Sodium	ug/l	--	--	--	--	--	--
Strontium	ug/l	--	--	--	--	--	--
Sulfur	ug/l	--	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--	--
Tin	ug/l	--	--	--	--	--	--
Titanium	ug/l	--	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--	--
Phenols							
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 04-Jun-1994	GS19 07-Sep-1994	GS19 24-Nov-1994 (4)	GS19 28-May-1995
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	115000	98000	--	119000
Ammonia, unionized (Field)	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	18000	13000	--	13000
Chloride	ug/l	--	45000	40000	--	39000
Conductivity (Field)	uS/cm	--	440	430	--	430
Dissolved Organic Carbon	ug/l	--	7500	5600	--	7300
Dissolved Oxygen (Field)	ug/l	--(6)	10900	10600	--	9500
Hardness, Calcium Carbonate	ug/l	--	163000	148000	--	141000
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--
pH (Field)	-	8.5	6.3	7.4	--	7
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	10.5	10	--	12
Total Dissolved Solids	ug/l	--	250000	270000	--	260000
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	--	--	--	**1080**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 04-Jun-1994	GS19 07-Sep-1994	GS19 24-Nov-1994 (4)	GS19 28-May-1995
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	--	--	--	250
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	38000	23000	--	35000
Strontium	ug/l	--	160	160	--	160
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 11-Sep-1995	GS19 07-Nov-1995 (4)	GS19 17-Jul-1996	GS19 22-Nov-1996
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	95000	--	90000	98000
Ammonia, unionized (Field)	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	13000	--	29000	21000
Chloride	ug/l	--	29000	--	52000	45000
Conductivity (Field)	uS/cm	--	375	--	370	260
Dissolved Organic Carbon	ug/l	--	5600	--	10800	6500
Dissolved Oxygen (Field)	ug/l	--(6)	--(23)	--	8400	11400
Hardness, Calcium Carbonate	ug/l	--	128000	--	107000	136000
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.7	--	8	6.6
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	11	--	22	0.5
Total Dissolved Solids	ug/l	--	232000	--	268000	256000
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	**1390**	--	**470**	**1360**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 11-Sep-1995	GS19 07-Nov-1995 (4)	GS19 17-Jul-1996	GS19 22-Nov-1996
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	--	--
Manganese	ug/l	--	50	--	80	50
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	27000	--	42000	37000
Strontium	ug/l	--	152	--	140	138
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 10-Jun-1997	GS19 09-Sep-1997	GS19 09-Jun-1998	GS19 20-Aug-1998
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	101000	84000	103000	135000
Ammonia, unionized (Field)	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	29000	21000	13000	32000
Chloride	ug/l	--	26000	19000	34000	37000
Conductivity (Field)	uS/cm	--	240	320	230	330
Dissolved Organic Carbon	ug/l	--	9300	8100	9300	10800
Dissolved Oxygen (Field)	ug/l	--(6)	11300	**4000**	--(22)	**1500**
Hardness, Calcium Carbonate	ug/l	--	107000	96000	114000	138000
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.5	6.4	6.92	6.5
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	18	17	24	15
Total Dissolved Solids	ug/l	--	220000	156000	224000	264000
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	23000	--	--	--
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	**1240**	**790**	**1230**	**1900**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 10-Jun-1997	GS19 09-Sep-1997	GS19 09-Jun-1998	GS19 20-Aug-1998
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	12000	--	--	--
Manganese	ug/l	--	260	310	170	240
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	26000	13000	24000	33000
Strontium	ug/l	--	124	140	136	150
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 25-May-1999	GS19 31-Aug-1999	GS19 01-Jun-2000	GS19 18-Aug-2000
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	111000	122000	112000	132000
Ammonia, unionized (Field)	ug/l	20	--	--	--	--
Ammonia Nitrogen	ug/l	--	--	--	--	--
Biochemical Oxygen Demand, 5 Day	ug/l	--	--	--	--	--
Chemical Oxygen Demand	ug/l	--	49000	23000	15000	15000
Chloride	ug/l	--	33000	27000	26000	35000
Conductivity (Field)	uS/cm	--	280	300	200	401
Dissolved Organic Carbon	ug/l	--	11200	6300	7700	5900
Dissolved Oxygen (Field)	ug/l	--(6)	11900	9400	6700	6900
Hardness, Calcium Carbonate	ug/l	--	116000	161000	116000	130000
Nitrate as N	ug/l	--	--	--	--	--
Nitrite as N	ug/l	--	--	--	--	--
Nitrogen, Total Kjeldahl	ug/l	--	--	--	--	--
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--
pH (Field)	-	8.5	7.7	6.2	6.9	7.7
Phosphorus	ug/l	--(7)	--	--	--	--
Sulphate	ug/l	--	--	--	--	--
Temperature (Field)	deg c	--(8)	18.5	12	11	16.4
Total Dissolved Solids	ug/l	--	216000	228000	200000	280000
Metals						
Aluminum, dissolved	ug/l	--(10)	--	--	--	--
Barium	ug/l	--	--	--	--	--
Beryllium	ug/l	--(11)	--	--	--	--
Boron	ug/l	200(12)	--	--	--	--
Cadmium	ug/l	0.2(13)	--	--	--	--
Calcium	ug/l	--	--	--	25000	29000
Chromium	ug/l	--(14)	--	--	--	--
Cobalt	ug/l	0.9	--	--	--	--
Copper	ug/l	5	--	--	--	--
Iron	ug/l	300	**1500**	60	**420**	**880**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 25-May-1999	GS19 31-Aug-1999	GS19 01-Jun-2000	GS19 18-Aug-2000
Lead	ug/l	-- (15)	--	--	--	--
Magnesium	ug/l	--	--	--	13000	14000
Manganese	ug/l	--	330	150	470	40
Mercury, dissolved	ug/l	0.2 (16)	--	--	--	--
Molybdenum	ug/l	40	--	--	--	--
Nickel	ug/l	25	--	--	--	--
Potassium	ug/l	--	--	--	--	--
Silicon	ug/l	--	--	--	--	--
Silver	ug/l	0.1	--	--	--	--
Sodium	ug/l	--	--	22000	27000	34000
Strontium	ug/l	--	127	158	169	138
Sulfur	ug/l	--	--	--	--	--
Thallium	ug/l	0.3 (17)	--	--	--	--
Titanium	ug/l	--	--	--	--	--
Vanadium	ug/l	6	--	--	--	--
Zinc	ug/l	30 (13)	--	--	--	--
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	--	--	--	--

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 29-May-2007	GS19 23-Aug-2007	GS19 25-Nov-2007	GS19 01-May-2008
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	111000	126000	124000	82000
Ammonia, unionized (Field)	ug/l	20	<20	<20	<20	<20
Ammonia Nitrogen	ug/l	--	40	40	30	40
Biochemical Oxygen Demand, 5 Day	ug/l	--	1000	2000	--	<1000
Chemical Oxygen Demand	ug/l	--	18000	17000	--	7000
Chloride	ug/l	--	42000	49000	72000	33000
Conductivity (Field)	uS/cm	--	300	600	470	245
Dissolved Organic Carbon	ug/l	--	7600	7500	6200	7300
Dissolved Oxygen (Field)	ug/l	--(6)	10850	**400**	**1790**	13920
Hardness, Calcium Carbonate	ug/l	--	130000	168000	162000	105000
Nitrate as N	ug/l	--	1880	440	--	2290
Nitrite as N	ug/l	--	<100	<100	--	<100
Nitrogen, Total Kjeldahl	ug/l	--	870	670	--	800
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	--	--
pH (Field)	-	8.5	8.5	7.2	7.5	8
Phosphorus	ug/l	--(7)	**90**	**170**	**130**	**50**
Sulphate	ug/l	--	25000	38000	--	22000
Temperature (Field)	deg c	--(8)	23.2	16.4	0.2	5.7
Total Dissolved Solids	ug/l	--	273000	319000	383000	220000
Metals						
Aluminum, dissolved	ug/l	--(10)	40	10	--	**140**
Barium	ug/l	--	30	50	--	30
Beryllium	ug/l	--(11)	<1	<1	--	<1
Boron	ug/l	200(12)	60	70	40	40
Cadmium	ug/l	0.2(13)	<0.1	<0.1	--	<0.1
Calcium	ug/l	--	29000	41000	35000	24000
Chromium	ug/l	--(14)	2	4	--	3
Cobalt	ug/l	0.9	0.6	0.6	--	0.4
Copper	ug/l	5	4	2	--	4
Iron	ug/l	300	**1050**	**940**	**520**	**550**

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 29-May-2007	GS19 23-Aug-2007	GS19 25-Nov-2007	GS19 01-May-2008
Lead	ug/l	-- (15)	<1	<1	--	<1
Magnesium	ug/l	--	14000	16000	18000	11000
Manganese	ug/l	--	120	130	50	50
Mercury, dissolved	ug/l	0.2 (16)	<0.1	<0.1	--	<0.1
Molybdenum	ug/l	40	<5	<5	--	<5
Nickel	ug/l	25	<5	<5	--	<5
Potassium	ug/l	--	4000	5000	--	3000
Silicon	ug/l	--	3400	7300	--	4600
Silver	ug/l	0.1	<0.1	<0.1	--	<0.1
Sodium	ug/l	--	34000	34000	48000	26000
Strontium	ug/l	--	128	168	--	105
Sulfur	ug/l	--	8300	12700	--	7000
Thallium	ug/l	0.3 (17)	**0.4**	<0.1	--	<0.1
Titanium	ug/l	--	20	50	--	30
Vanadium	ug/l	6	3	4	--	3
Zinc	ug/l	30 (13)	<10	<10	--	<10
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	<1	--	<1

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 11-Aug-2008	GS19 04-Nov-2008	GS19 09-Apr-2009 C-3	
General Chemistry						
Alkalinity (Total as CaCO3)	ug/l	--(5)	119000	117000	92000	
Ammonia, unionized (Field)	ug/l	20	<20	<20	<20	
Ammonia Nitrogen	ug/l	--	60	60	<50	
Biochemical Oxygen Demand, 5 Day	ug/l	--	<1000	<1000	<2000	
Chemical Oxygen Demand	ug/l	--	<5000	15000	15000	
Chloride	ug/l	--	39000	42000	33000	
Conductivity (Field)	uS/cm	--	400	425	330	
Dissolved Organic Carbon	ug/l	--	7500	7500	6400	
Dissolved Oxygen (Field)	ug/l	--(6)	6170	7430	13250	
Hardness, Calcium Carbonate	ug/l	--	133000	130000	100000	
Nitrate as N	ug/l	--	3010	4640	3900	
Nitrite as N	ug/l	--	<100	<100	<10	
Nitrogen, Total Kjeldahl	ug/l	--	1570	620	800	
Nitrogen, Nitrate-Nitrite	ug/l	--	--	--	3900	
pH (Field)	-	8.5	**8.9**	8	8.2	
Phosphorus	ug/l	--(7)	**100**	**100**	**47**	
Sulphate	ug/l	--	26000	28000	22000	
Temperature (Field)	deg c	--(8)	16.6	8.8	7.2	
Total Dissolved Solids	ug/l	--	289000	304000	220000	
Metals						
Aluminum, dissolved	ug/l	--(10)	70	30	74	
Barium	ug/l	--	40	40	38	
Beryllium	ug/l	--(11)	<1	<1	<0.5	
Boron	ug/l	200(12)	70	70	40	
Cadmium	ug/l	0.2(13)	<0.1	<0.1	<0.1	
Calcium	ug/l	--	32000	29000	24000	
Chromium	ug/l	--(14)	4	2	<5	
Cobalt	ug/l	0.9	0.6	0.5	<0.5	
Copper	ug/l	5	3	3	3	
Iron	ug/l	300	**1060**	**620**	**800**	

SURFACE WATER DATA

Parameter	Unit	(2) (1) PWQO	GS19 11-Aug-2008	GS19 04-Nov-2008	GS19 09-Apr-2009 C-3	
Lead	ug/l	-- (15)	<1	<1	<0.5	
Magnesium	ug/l	--	13000	14000	10000	
Manganese	ug/l	--	80	30	25	
Mercury, dissolved	ug/l	0.2 (16)	<0.1	<0.1	<0.1	
Molybdenum	ug/l	40	<5	<5	<1	
Nickel	ug/l	25	<5	<5	3	
Potassium	ug/l	--	4000	4000	3800	
Silicon	ug/l	--	5900	5700	5200	
Silver	ug/l	0.1	<0.1	<0.1	<0.1	
Sodium	ug/l	--	33000	34000	25000	
Strontium	ug/l	--	164	128	110	
Sulfur	ug/l	--	9000	9000	6800	
Thallium	ug/l	0.3 (17)	<0.1	<0.1	<0.05	
Titanium	ug/l	--	30	10	46	
Vanadium	ug/l	6	4	2	3	
Zinc	ug/l	30 (13)	<10	<10	15	
Phenols						
Phenolics, Total Recoverable	ug/l	1 (18)	<1	<1	<1	

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 29-Apr-1992	GS6 06-Sep-1992	GS6 28-Nov-1992	GS6 04-May-1993 (4)
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	--
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	**100**	**120**	<30	--
Boron	ug/l	200 (12)	mg/L	0.2 (12)	20	<10	<10	--
Iron	ug/l	300	mg/L	0.3	**800**	**1690**	**1000**	--

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 29-Aug-1993 (4)	GS6 11-Nov-1993 (4)	GS6 04-Jun-1994	GS6 07-Sep-1994
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	<20
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	--	--	**1500**	**40**
Boron	ug/l	200 (12)	mg/L	0.2 (12)	--	--	<10	10
Iron	ug/l	300	mg/L	0.3	--	--	**720**	**1220**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 24-Nov-1994 [4]	GS6 28-May-1995	GS6 11-Sep-1995	GS6 07-Nov-1995
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	<20	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	--	**40**	**70**	**50**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	20	20	--
Iron	ug/l	300	mg/L	0.3	--	**1330**	**1220**	**1110**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 17-Jul-1996	GS6 22-Nov-1996	GS6 10-Jun-1997	GS6 09-Sep-1997
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	30	**40**	**60**	**130**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	10	20	<10	<10
Iron	ug/l	300	mg/L	0.3	**780**	**1380**	**690**	**870**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 06-Apr-1998	GS6 09-Jun-1998	GS6 25-Jun-1998	GS6 17-Jul-1998
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	**70**	**70**	**60**	**90**
Boron	ug/l	200 (12)	mg/L	0.2 (12)	20	<10	<10	<10
Iron	ug/l	300	mg/L	0.3	**310**	**910**	**1580**	**2070**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 20-Aug-1998	GS6 26-Sep-1998	GS6 20-Oct-1998	GS6 20-Dec-1998
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	--
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	**90**	**60**	**80**	**80**
Boron	ug/l	200 (12)	mg/L	0.2 (12)	<10	--	<10	--
Iron	ug/l	300	mg/L	0.3	**1070**	**970**	**1360**	**950**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 23-Apr-1999	GS6 26-May-1999	GS6 25-Jun-1999	GS6 29-Jul-1999
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	**40**	**50**	**90**	**110**
Boron	ug/l	200 (12)	mg/L	0.2 (12)	--	<10	--	--
Iron	ug/l	300	mg/L	0.3	**370**	**370**	**310**	**1610**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 31-Aug-1999	GS6 30-Sep-1999	GS6 27-Oct-1999 [3]	GS6 29-Nov-1999
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**450**	**70**	--	**830**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	30	--	--	--
Iron	ug/l	300	mg/L	0.3	**4760**	**810**	--	**5660**

Parameter	Unit (<June 2016)	(2) (1) PWQO	Unit (June 2016+)	(2) (1) PWQO	GS6 21-Dec-1999 (25)	GS6 28-Apr-2000	GS6 01-Jun-2000	GS6 29-Jun-2000
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	--
Phosphorus	ug/l	10-30 (7)	mg/L	0.010 -0.030 (7)	--	**50**	30	**60**
Boron	ug/l	200 (12)	mg/L	0.2 (12)	--	--	<10	--
Iron	ug/l	300	mg/L	0.3	--	**440**	**1120**	**1480**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 30-Jul-2000	GS6 18-Aug-2000	GS6 27-Sep-2000	GS6 30-Oct-2000
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**120**	**40**	**80**	30
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	<10	--	--
Iron	ug/l	300	mg/L	0.3	**900**	**1210**	**1600**	**820**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Dec-2000	GS6 21-Dec-2000	GS6 30-May-2001	GS6 10-Aug-2001 [3]
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	--	<20	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	**60**	**60**	--
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	--	<10	--
Iron	ug/l	300	mg/L	0.3	**1150**	**490**	**1160**	--

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 05-Apr-2002	GS6 06-Aug-2002 [28]	GS6 01-Nov-2002	GS6 12-May-2003
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	--	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**110**	--	**50**	**40**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<50	--	<50	<50
Iron	ug/l	300	mg/L	0.3	220	--	150	**650**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 26-Aug-2003	GS6 19-Nov-2003	GS6 26-May-2004	GS6 28-Aug-2004
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**50**	**200**	**46**	**184**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<50	<10	7	16
Iron	ug/l	300	mg/L	0.3	**620**	**1530**	**1770**	**4620**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 25-Nov-2004	GS6 26-May-2005	GS6 26-Aug-2005	GS6 15-Nov-2005
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**49**	**60**	**120**	**50**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<5	20	40	<10
Iron	ug/l	300	mg/L	0.3	**2190**	**920**	**1870**	**1050**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2006	GS6 06-Sep-2006	GS6 20-Nov-2006	GS6 29-May-2007
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	30	**500**	**60**	**50**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	20	20	10
Iron	ug/l	300	mg/L	0.3	**1240**	**1520**	**1340**	**1150**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 23-Aug-2007	GS6 25-Nov-2007	GS6 01-May-2008	GS6 11-Aug-2008
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**180**	**80**	20	**40**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	40	<10	20	<10
Iron	ug/l	300	mg/L	0.3	**1500**	**860**	**1060**	**1260**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 04-Nov-2008	GS6 09-Apr-2009 C-1	GS6 05-Aug-2009 GS-6	GS6 03-Nov-2009 GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**40**	**71**	**52**	21
Boron	ug/l	200 [12]	mg/L	0.2 [12]	20	10	<10	<10
Iron	ug/l	300	mg/L	0.3	**1080**	**900**	**1500**	**1100**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 01-Jun-2010 SW-3	GS6 13-Aug-2010 L-2	GS6 12-Nov-2010 C-6	GS6 28-Apr-2011 A-7
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<20	<20	<20	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**76**	**81**	26	**290**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	30	20	<10	10
Iron	ug/l	300	mg/L	0.3	**1500**	**1800**	**1100**	**4600**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-May-2011 SW-6	GS6 24-Aug-2011 C-5	GS6 07-Sep-2011 S-6	GS6 07-Nov-2011 L-1
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	--	<20	--	<20
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**64**	29	**50**	20
Boron	ug/l	200 [12]	mg/L	0.2 [12]	--	20	--	<10
Iron	ug/l	300	mg/L	0.3	**1500**	**400**	--	**700**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 05-Jun-2012 GS-6	GS6 29-Aug-2012 [3] GS6	GS6 19-Nov-2012 GS-6	GS6 22-Apr-2013 GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.5	--	0.6	0.91
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**33**	--	11	**40**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	26	--	18	<10
Iron	ug/l	300	mg/L	0.3	**1700**	--	270	**2300**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 06-Sep-2013 GS-6	GS6 15-Oct-2013 GS-6	GS6 29-Nov-2013 GS-6	GS6 09-May-2014 [26] GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.03	--	0.82	0.54
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**36**	**<100**	**42**	21
Boron	ug/l	200 [12]	mg/L	0.2 [12]	19	--	18	<10
Iron	ug/l	300	mg/L	0.3	**660**	--	**1200**	**790**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 27-Aug-2014 GS-6	GS6 23-Sep-2014 GS-6	GS6 24-Nov-2014 GS-6	GS6 08-Dec-2014 GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	1.75	--	0.57	--
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**31**	25	**370**	**31**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	<10	--	14	--
Iron	ug/l	300	mg/L	0.3	**630**	**1100**	**3200**	**1200**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 14-May-2015 GS-6	GS6 18-Aug-2015 GS-11	GS6 20-Nov-2015 6	GS6 15-Jun-2016 GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	<0.29	<0.61	<0.28	< 0.01
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**33**	**48**	**36**	**0.05**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	17	24	11	0.012
Iron	ug/l	300	mg/L	0.3	**1200**	**630**	**930**	**0.757**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 22-Aug-2016 GS-6	GS6 13-Oct-2016 GS-6	GS6 01-May-2017 GS-6	GS6 20-Sep-2017 GS-6
General Chemistry								
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	0.02
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.04**	**0.03**	**0.19**	**0.06**
Boron	ug/l	200 [12]	mg/L	0.2 [12]	0.011	< 0.005	0.008	0.014
Iron	ug/l	300	mg/L	0.3	0.258	0.217	**3.76**	**0.908**

Parameter	Unit (<June 2016)	[2] [1] PWQO	Unit (June 2016+)	[2] [1] PWQO	GS6 6-Nov-2017 GS-6	GS6 30-Apr-2018 GS-6	GS6 20-Aug-2018 GS-6	GS6 05-Nov-2018 GS-6	75 Percentile
General Chemistry									
Ammonia, unionized (Field)	ug/l	20	mg/L	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.865
Phosphorus	ug/l	10-30 [7]	mg/L	0.010 -0.030 [7]	**0.05**	**0.05**	0.04	0.04	80
Boron	ug/l	200 [12]	mg/L	0.2 [12]	0.008	0.009	0.009	0.006	20
Iron	ug/l	300	mg/L	0.3	**1.06**	**0.793**	0.503	1.13	1480

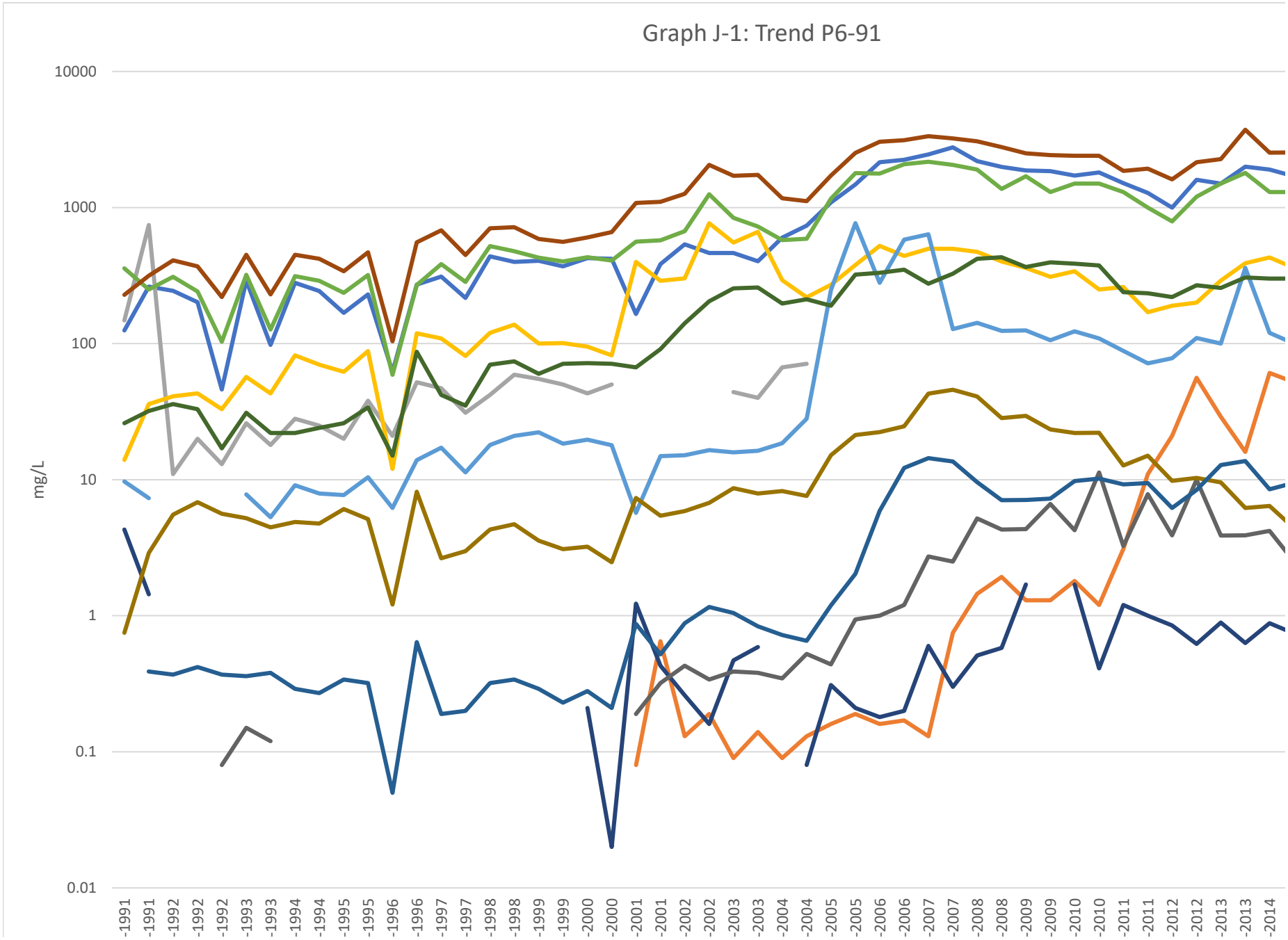
Footnotes:

Tables should be read in conjunction with the accompanying document.
< value = Indicates parameter not detected above laboratory method detection limit.
> value = Indicates parameter detected above equipment analytical range.
-- Chemical not analyzed or criteria not defined.
Grey background indicates exceedances.
(1) Provincial Water Quality Objectives (July 1994, reprinted February 1999)
(2) Bold Font = Parameter concentration greater than PWQO
(3) Monitoring location was dry during this sampling event. No sample was collected.
(4) No sample was collected.
(5) Alkalinity should not be decreased by more than 25% of the natural concentration.
(6) Objective depends on water temperature and biota. Dissolved oxygen concentrations should not be less than the values specified in the PWQO document for cold water biota (e.g. salmonid fish communities) and warm water biota (e.g. centrarchid fish communities).
(7) Current scientific evidence is insufficient to develop a firm Objective at this time. Accordingly, the following phosphorus concentrations should be considered as general guidelines which should be supplemented by site-specific studies: To avoid nuisance concentrations of algae in lakes, average total phosphorus concentrations for the ice-free period should not exceed 20 ug/L; A high level of protection against aesthetic deterioration will be provided by a total phosphorus concentration for the ice-free period of 10 ug/L or less. This should apply to all lakes naturally below this value; Excessive plant growth in rivers and streams should be eliminated at a total phosphorus concentration below 30 ug/L.
(8) (1) General: The natural thermal regime of any body of water shall not be altered so as to impair the quality of the natural environment. In particular, the diversity, distribution and abundance of plant and animal life shall not be significantly changed. (2) Waste Heat Discharge: (a) Ambient Temperature Changes: The temperature at the edge of a mixing zone shall not exceed the natural ambient water temperature at a representative control location by more than 10°C (18°F). However, in special circumstances, local conditions may require a significantly lower temperature difference than 10°C (18°F). Potential dischargers are to apply to the MOEE for guidance as to the allowable temperature rise for each thermal discharge. This ministry will also specify the nature of the mixing zone and the procedure for the establishment of a representative control location for temperature recording on a case-by-case basis. (b) Discharge Temperature Permitted: The maximum temperature of the receiving body of water, at any point in the thermal plume outside a mixing zone, shall not exceed 30°C (86°F) or the temperature of a representative control location plus 10°C (18°F) or the allowed temperature difference, which ever is the lesser temperature. These maximum temperatures are to be measured on a mean daily basis from continuous records. (c) Taking and Discharging of Cooling Water: Users of cooling water shall meet both the Objectives for temperature outlined above and the "Procedures for the Taking and Discharge of Cooling Water" as outlined in the MOEE publication Deriving Receiving-Water Based, Point-Source Effluent Requirements for Ontario Waters(1994).
(9) Suspended matter should not be added to surface water in concentrations that will change the natural Secchi disc reading by more than 10 percent.
(10) At pH 4.5 to 5.5 the Interim PWQO is 15 µg/L based on inorganic monomeric aluminum measure in clay-free samples; At pH > 5.5 to 6.5, no condition should be permitted which would increase the acid soluble inorganic aluminum concentration in clay-free samples to more than 10% above natural background concentrations for waters representative of that geological area of the Province that are unaffected by man-made inputs. At pH > 6.5 to 9.0, the Interim PWQO is 75 µg/L based on total aluminum measured in clay-free samples. If natural background aluminum concentrations in water bodies unaffected by man-made inputs are greater than the numerical Interim PWQO (above), no condition is permitted that would increase the aluminum concentration in clay-free samples by more than 10% of the natural background level. Note: pH values of < 6.5 and > 8.5 are outside the range considered acceptable by the PWQO for pH. See the Scientific Criteria Document for Development of Provincial Water Quality Objectives and Guidelines - Aluminum for a discussion of analytical procedures.
(11) If hardness as CaCO3 < 75 mg/L, PWQO = 11 µg/L; if hardness as CaCO3 > 75 mg/L, PWQO = 1100 µg/L.
(12) See Section 1.2.3. of PWQO. This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
(13) An Interim PWQO also exists for this parameter. See Section 1.10 of the PWQO - Where both a PWQO and an Interim PWQO exist.
(14) PWQO values exist for Cr(III) and Cr(VI)
(15) If alkalinity as CaCO3 < 20 mg/L, PWQO = 5 µg/L; if alkalinity as CaCO3 from 20 to 40 mg/L, PWQO = 10 µg/L; if alkalinity as CaCO3 from 40 to 80 mg/L, PWQO = 20 µg/L; if alkalinity as CaCO3 > 80 mg/L, PWQO = 25 ug/L. An Interim PWQO also exists for this parameter. See Section 1.10 of the PWQO - Where both a PWQO and an Interim PWQO exist.
(16) In a filtered water sample.

(17) See Section 1.2.2. of PWQO. This Interim PWQO is currently under development. The value is subject to change upon publication by MOEE.
(18) Determined by the total reactive phenols test - the 4-AAP (4-amino-antipyrine) test. This objective should be used primarily as a screening tool. The isomer specific PWQOs for various phenolics should be employed where possible.
(19) BOD Analysis:reported >114 mg/L on the highest dilution factor, the sample dilutions werent sufficient enough to obtain a valid result. Results should be used with discretion.
(20) Metals Analysis:Detection Limit was raised due to matrix interferences.
(21) Due to colour interferences, sample required dilution. Detection limit was adjusted accordingly.
(22) No result(s) available.
(23) Parameter was not measured.
(24) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
(25) Monitoring location was frozen during this sampling event. No sample was collected.
(26) Nitrite/Nitrate: Due to the colour interferences, sample required dilution. Detection limits were adjusted accordingly.
(27) Result was obtained from the high level Total P method, as sample result was significantly higher than analytical range of the low level method.
(28) Insufficient water for sample collection or analysis at this monitoring location during sampling event.
(29) SL
(30) Nitrite/Nitrate: Due to the colour interferences, sample required dilution. Detection limits were adjusted accordingly.
Data prior to 2015 by others
Data base adapted from GAL 2015

APPENDIX J

Graphs of Concentration Trend at Selected Trigger Wells


Graph J-1: Trend P6-91
10000
1000
100
10
1
0.1
0.01
mg/L
-1991
-1991
-1992
-1992
-1992
-1993
-1993
-1994
-1994
-1995
-1995
-1996
-1996
-1997
-1997
-1998
-1998
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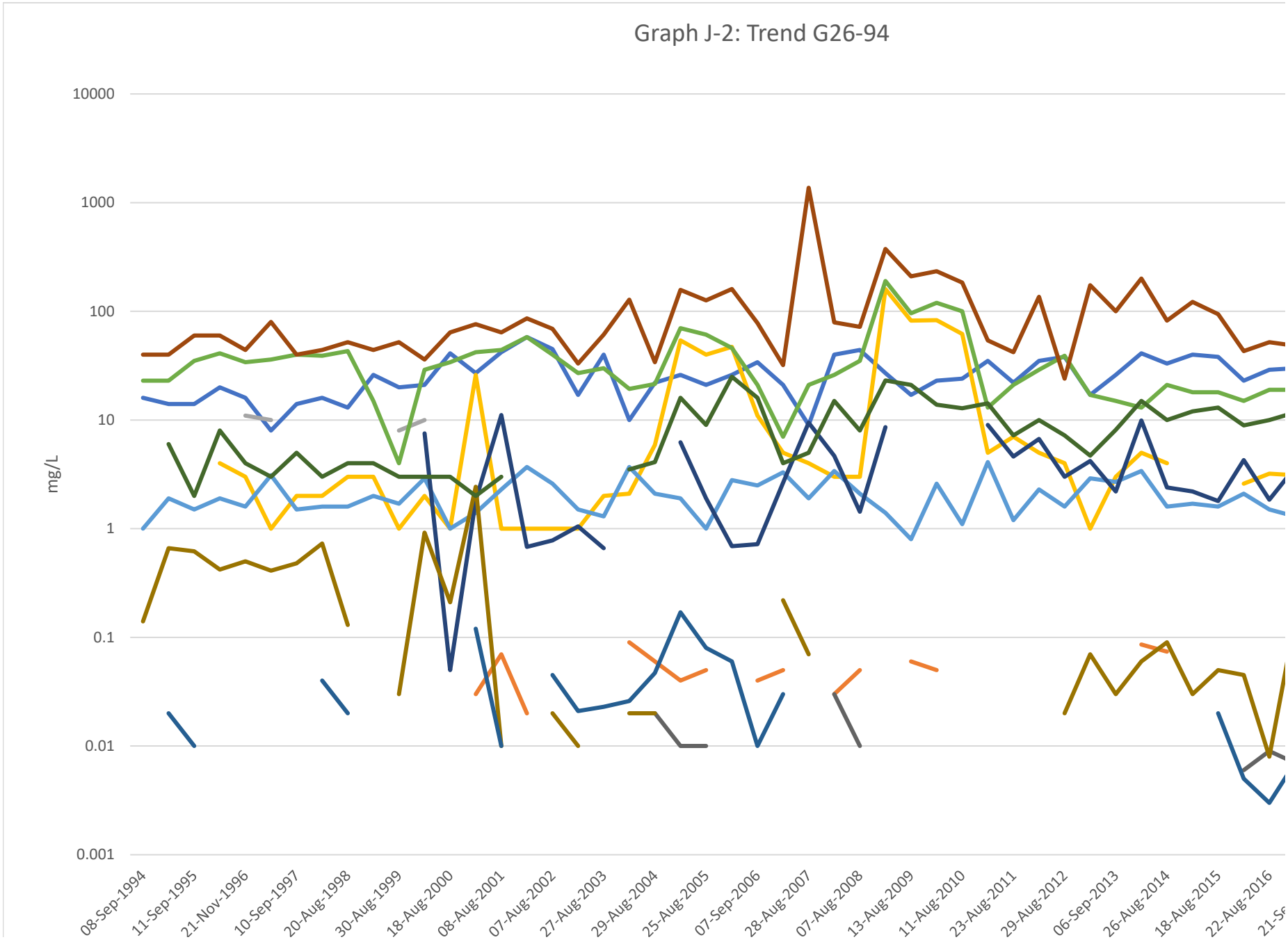
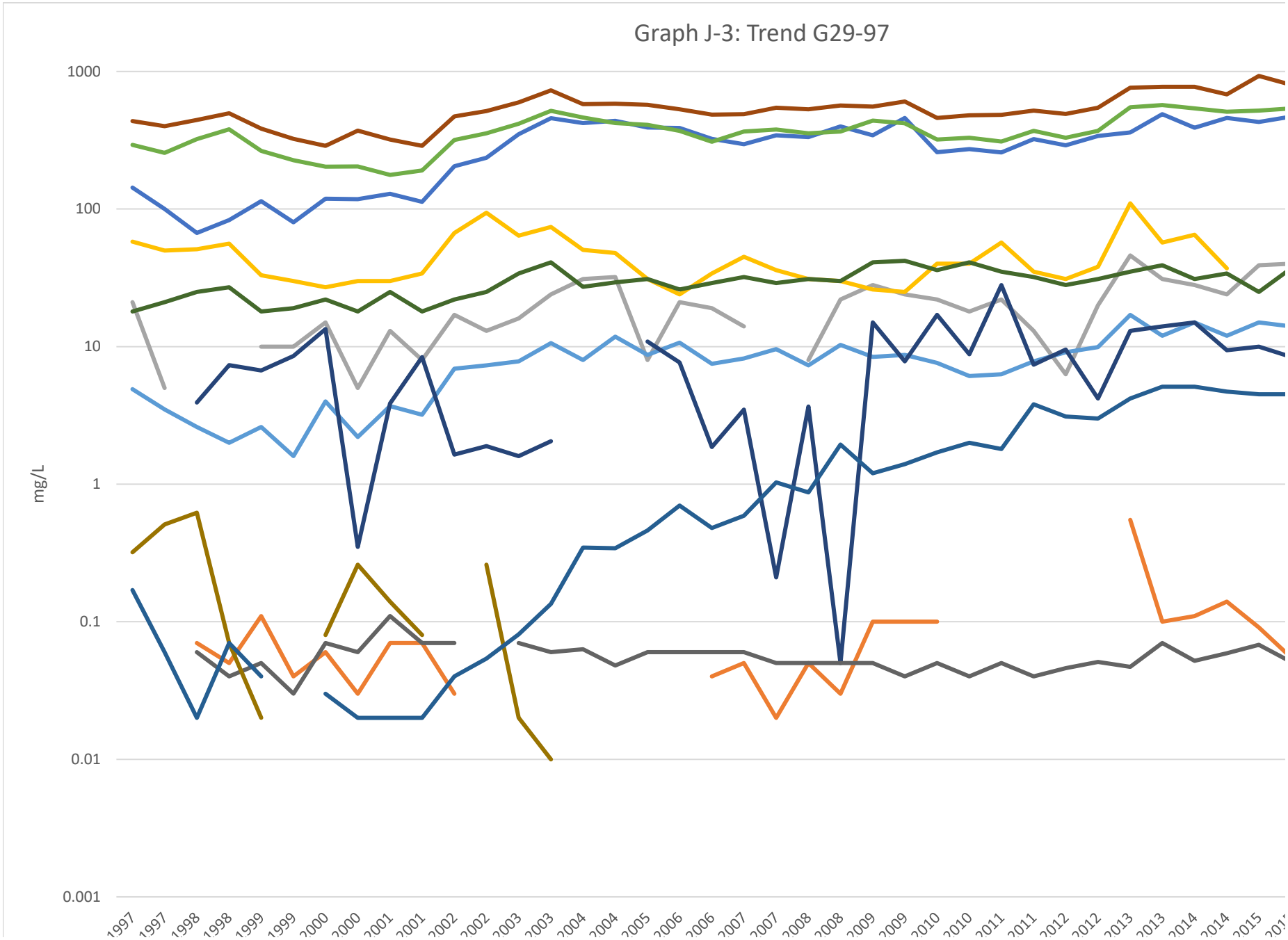
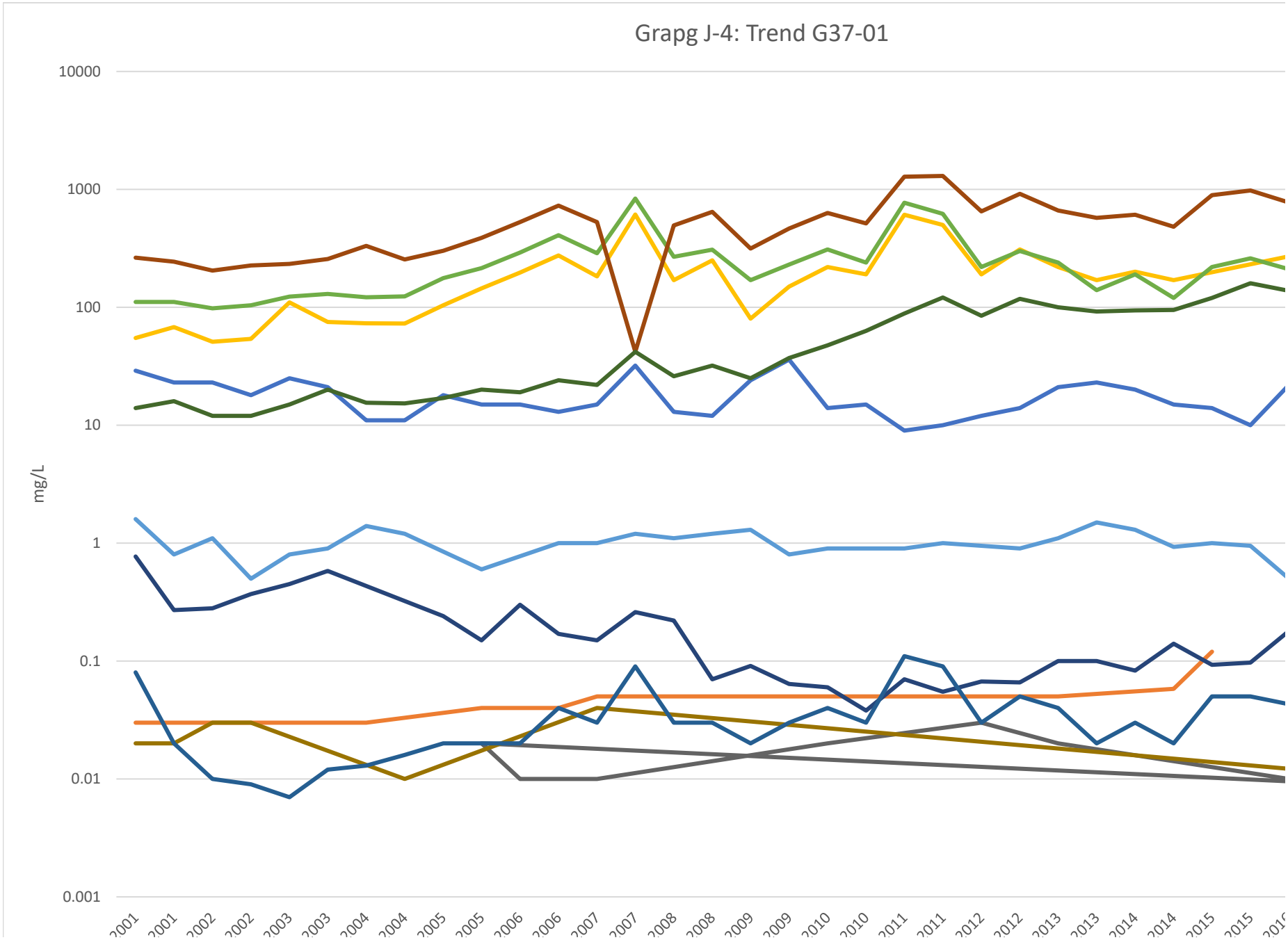
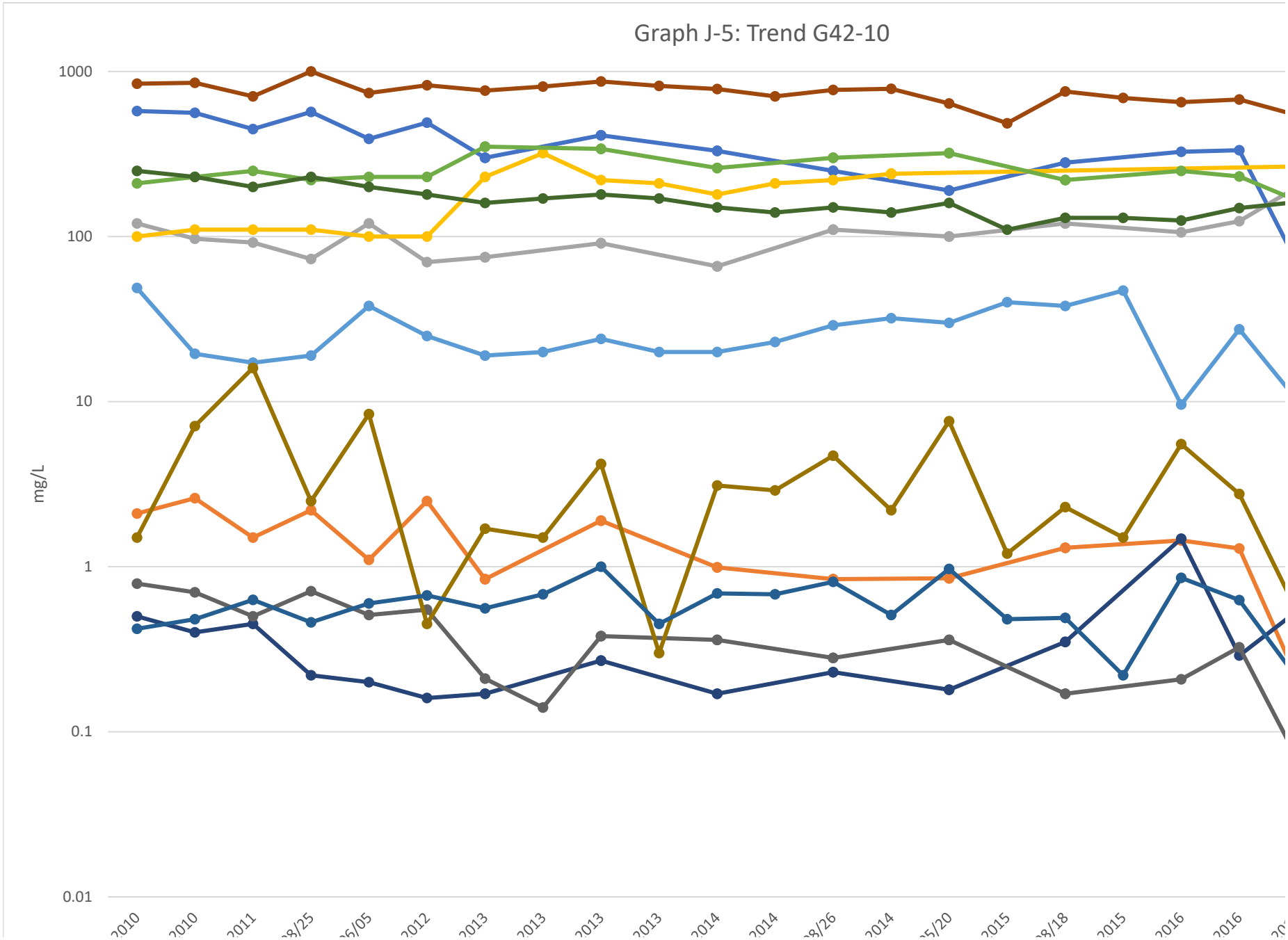
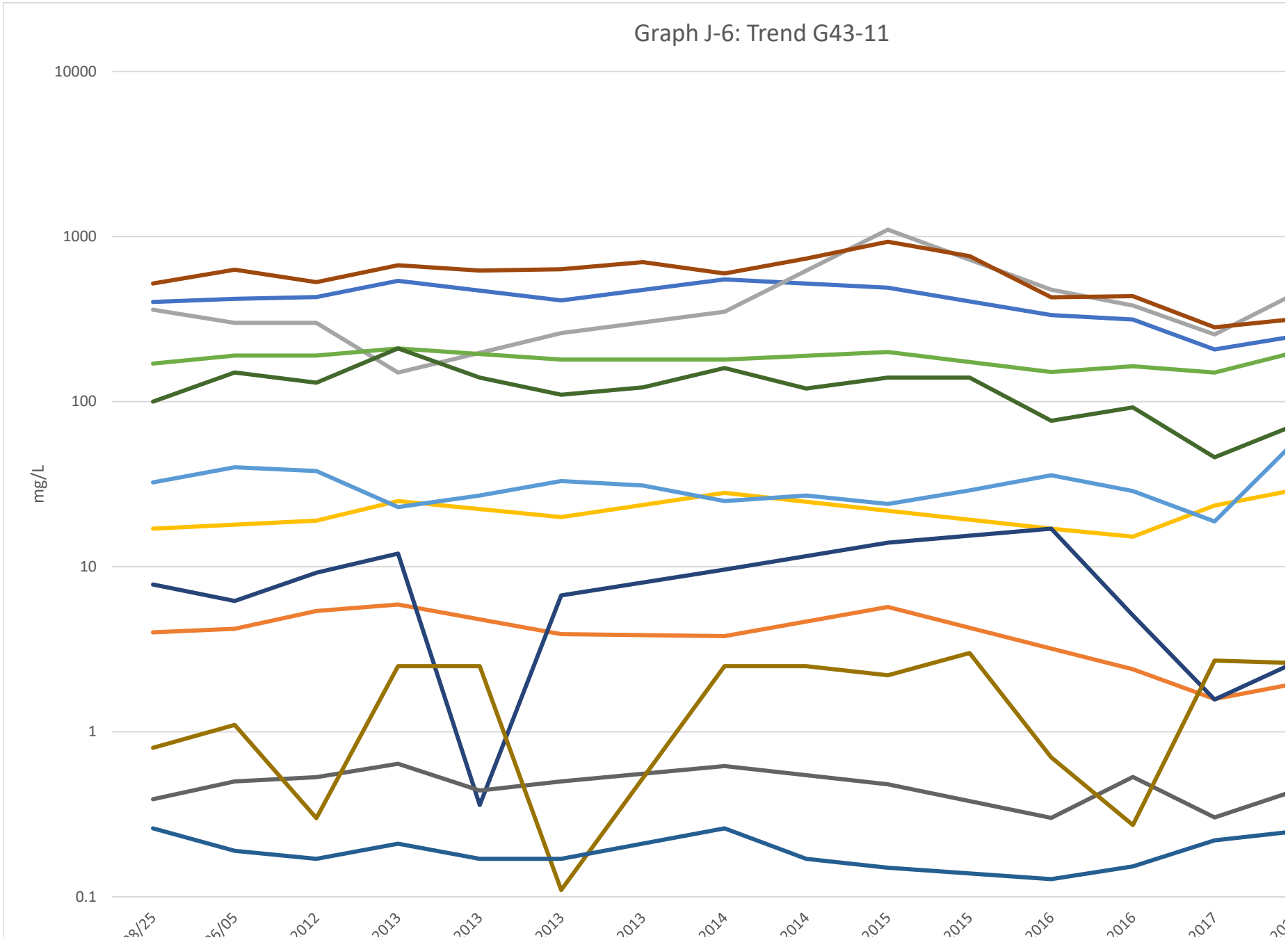
-2012
-2012
-2013
-2013
-2014

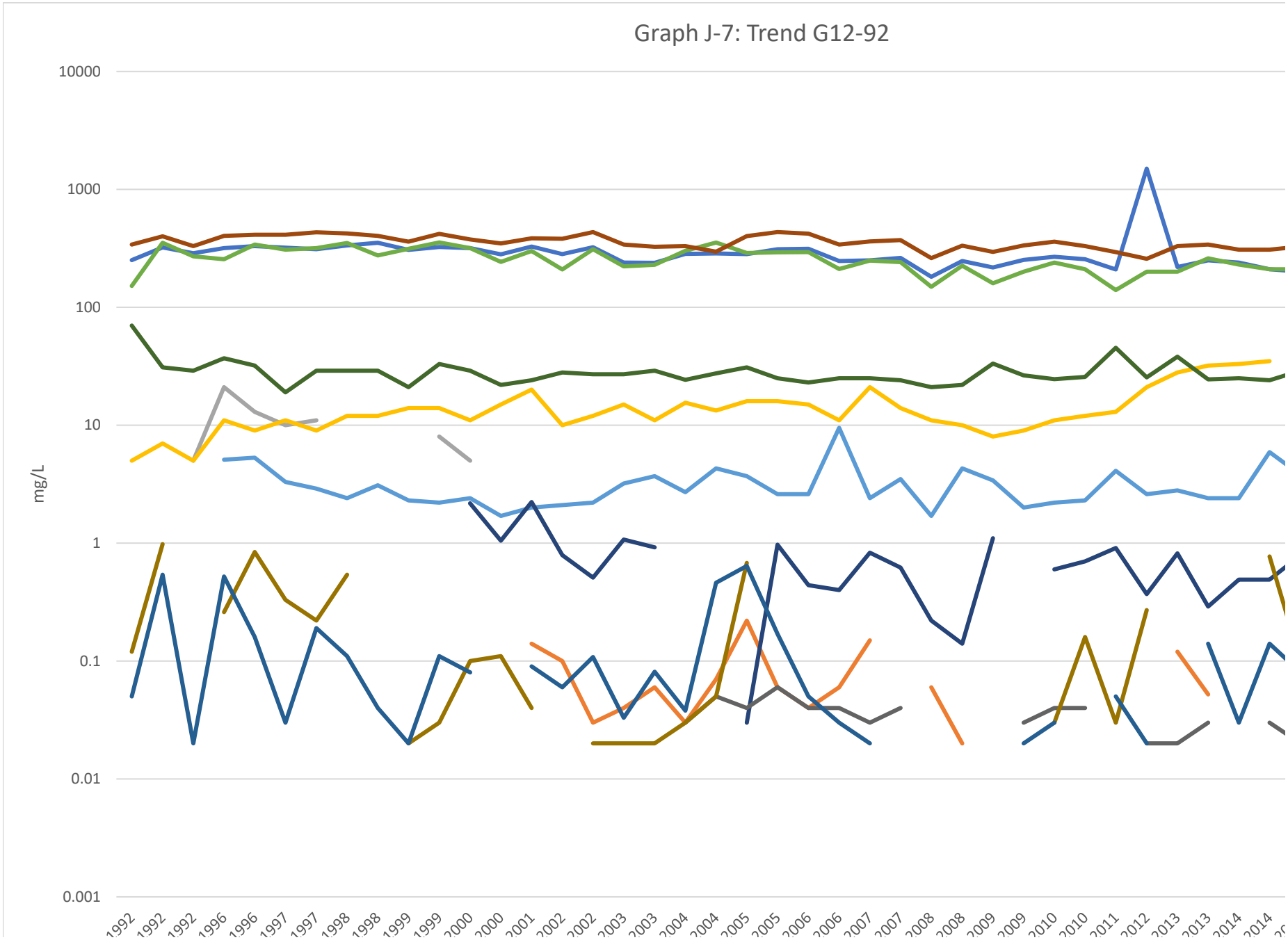

Graph J-2: Trend G26-94
10000
1000
100
10
1
0.1
0.01
0.001
mg/L
08-Sep-1994
11-Sep-1995
21-Nov-1996
10-Sep-1997
20-Aug-1998
30-Aug-1999
18-Aug-2000
08-Aug-2001
07-Aug-2002
27-Aug-2003
29-Aug-2004
25-Aug-2005
07-Sep-2006
28-Aug-2007
07-Aug-2008
13-Aug-2009
11-Aug-2010
23-Aug-2011
29-Aug-2012
06-Sep-2013
26-Aug-2014
18-Aug-2015
22-Aug-2016

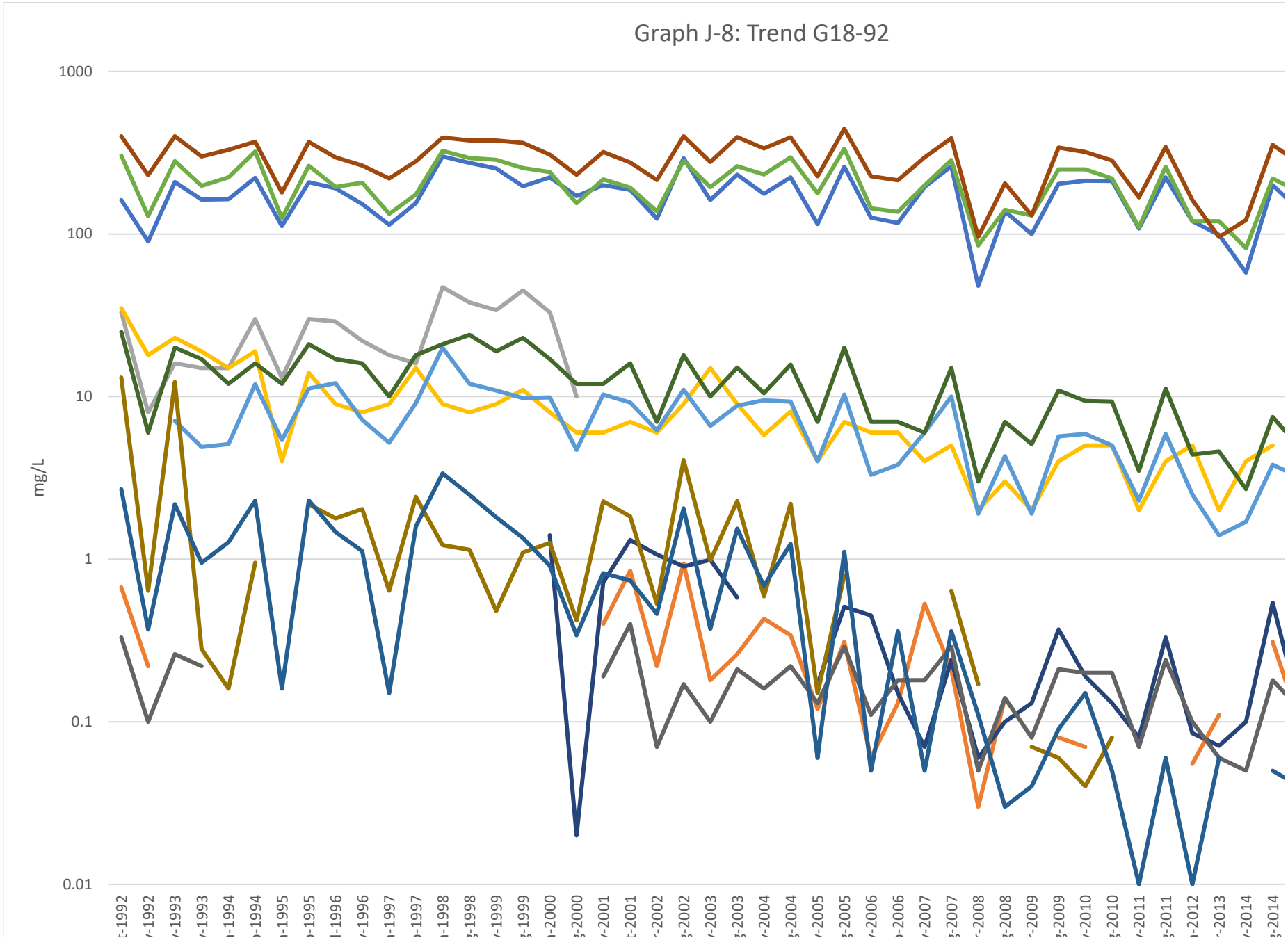

Graph J-3: Trend G29-97
1000
100
10
1
0.1
0.01
0.001
mg/L

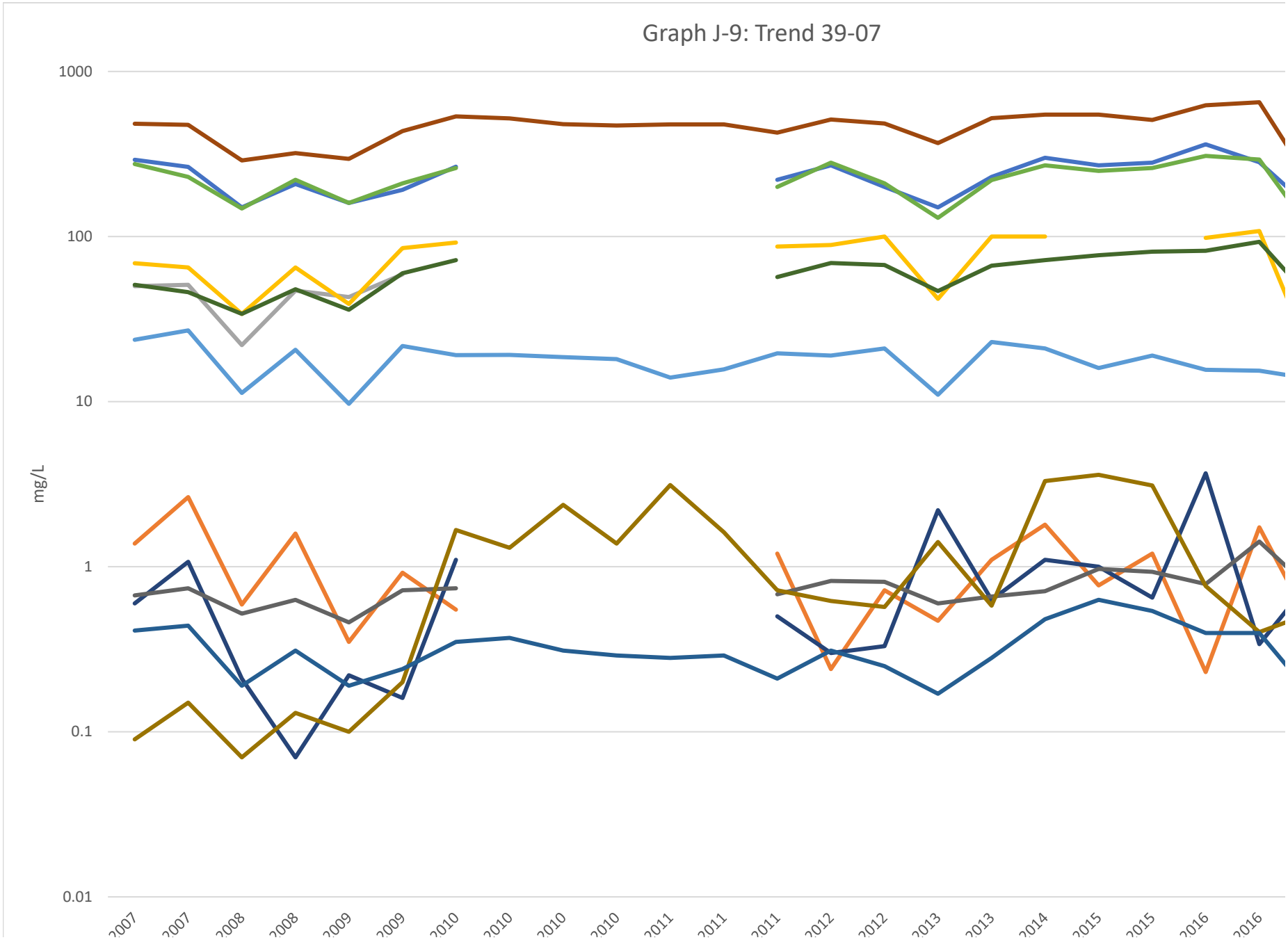

Grapg J-4: Trend G37-01
10000
1000
100
10
1
0.1
0.01
0.001
mg/L


Graph J-5: Trend G42-10
1000
100
10
1
0.1
0.01
mg/L


Graph J-6: Trend G43-11
10000
1000
100
10
1
0.1
mg/L
2012
2013
2013
2013
2013
2014
2014
2015
2015
2016
2016
2017

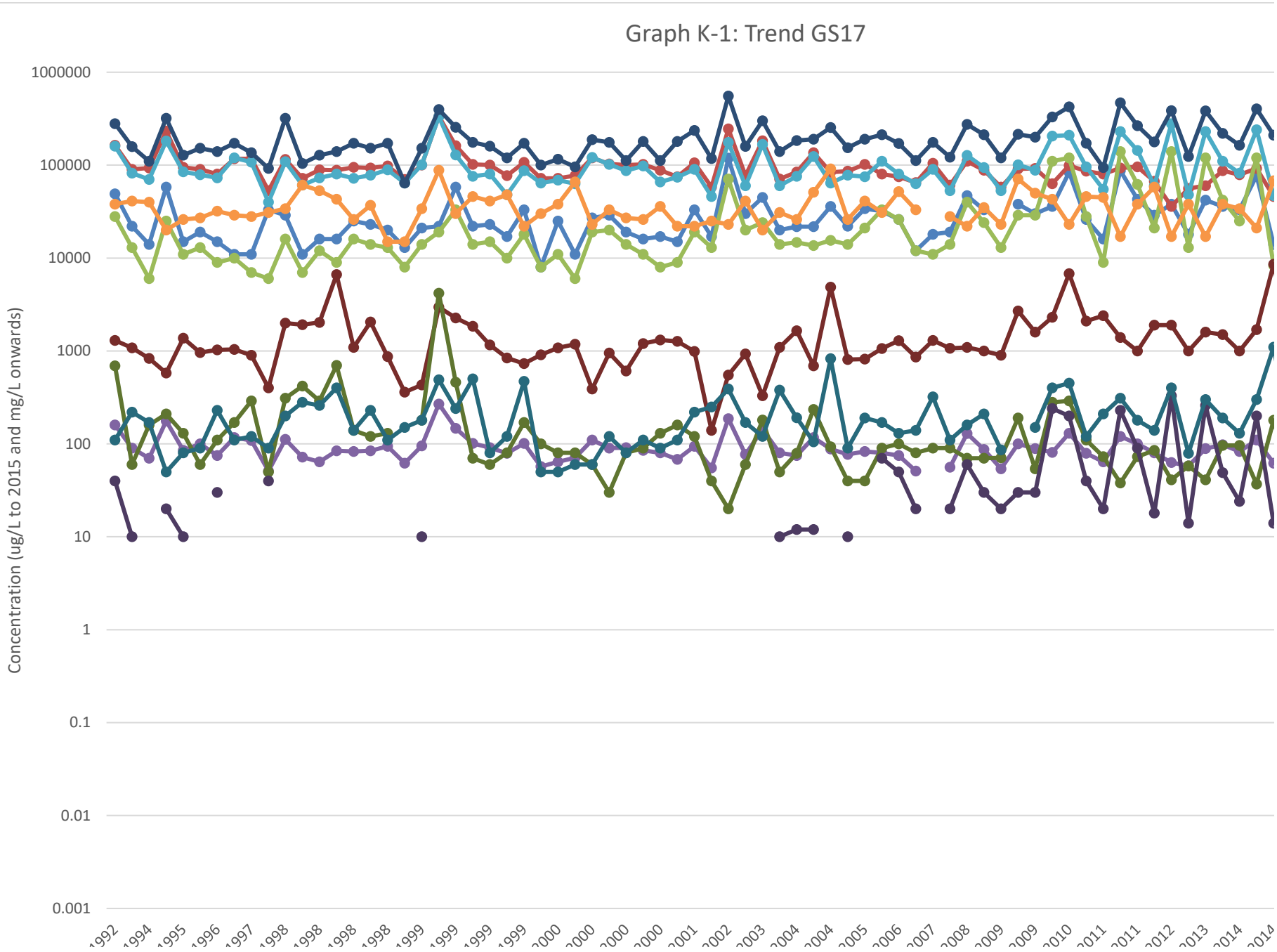

Graph J-7: Trend G12-92
10000
1000
100
10
1
0.1
0.01
0.001
mg/L

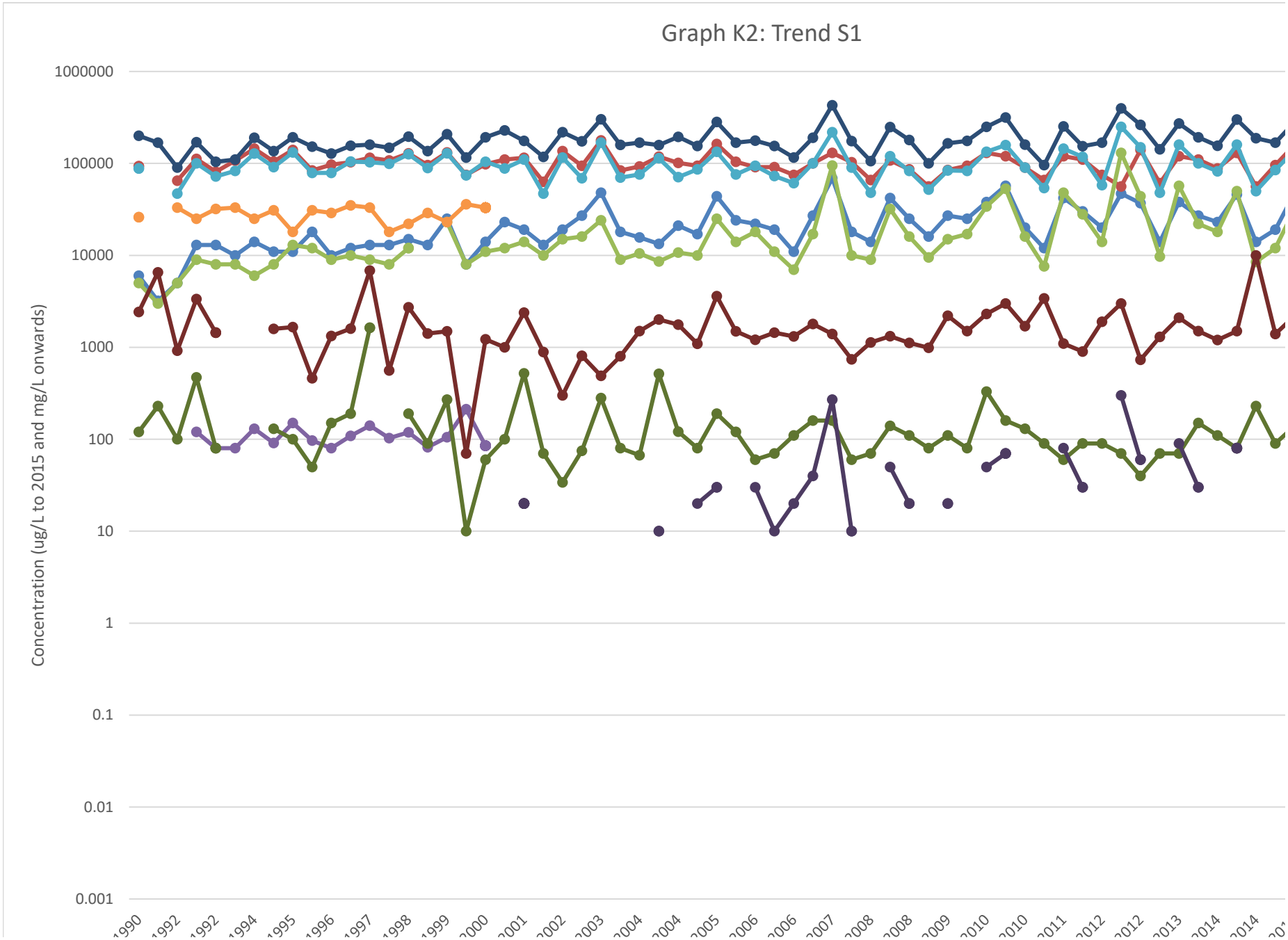

Graph J-8: Trend G18-92
1000
100
10
1
0.1
0.01
mg/L

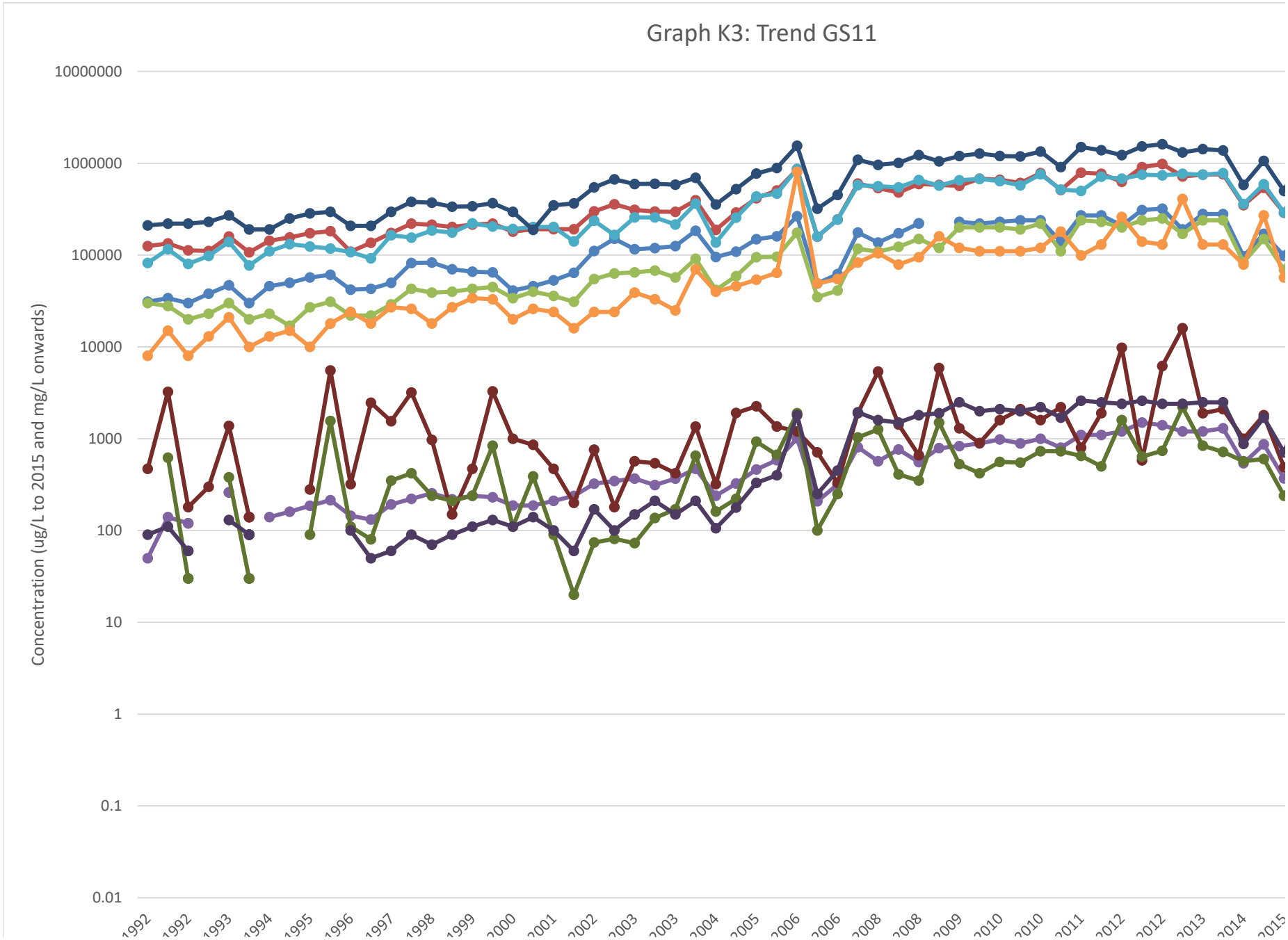

Graph J-9: Trend 39-07
1000
100
10
1
0.1
0.01
mg/L
2007
2007
2008
2008
2009
2009
2010
2010
2010
2010
2011
2011
2011
2012
2012
2013
2013
2014
2015
2015
2016
2016

APPENDIX K

Graphs of Concentrations Trend at Selected Surface Water Locations


Graph K-1: Trend GS17
Concentration (ug/L to 2015 and mg/L onwards)
1000000
100000
10000
1000
100
10
1
0.1
0.01
0.001


Graph K2: Trend S1
Concentration (ug/L to 2015 and mg/L onwards)
1000000
100000
10000
1000
100
10
1
0.1
0.01
0.001


Graph K3: Trend GS11
Concentration (ug/L to 2015 and mg/L onwards)
10000000
1000000
100000
10000
1000
100
10
1
0.1
0.01
1992
1992
1993
1994
1995
1996
1997
1998
1999
2000
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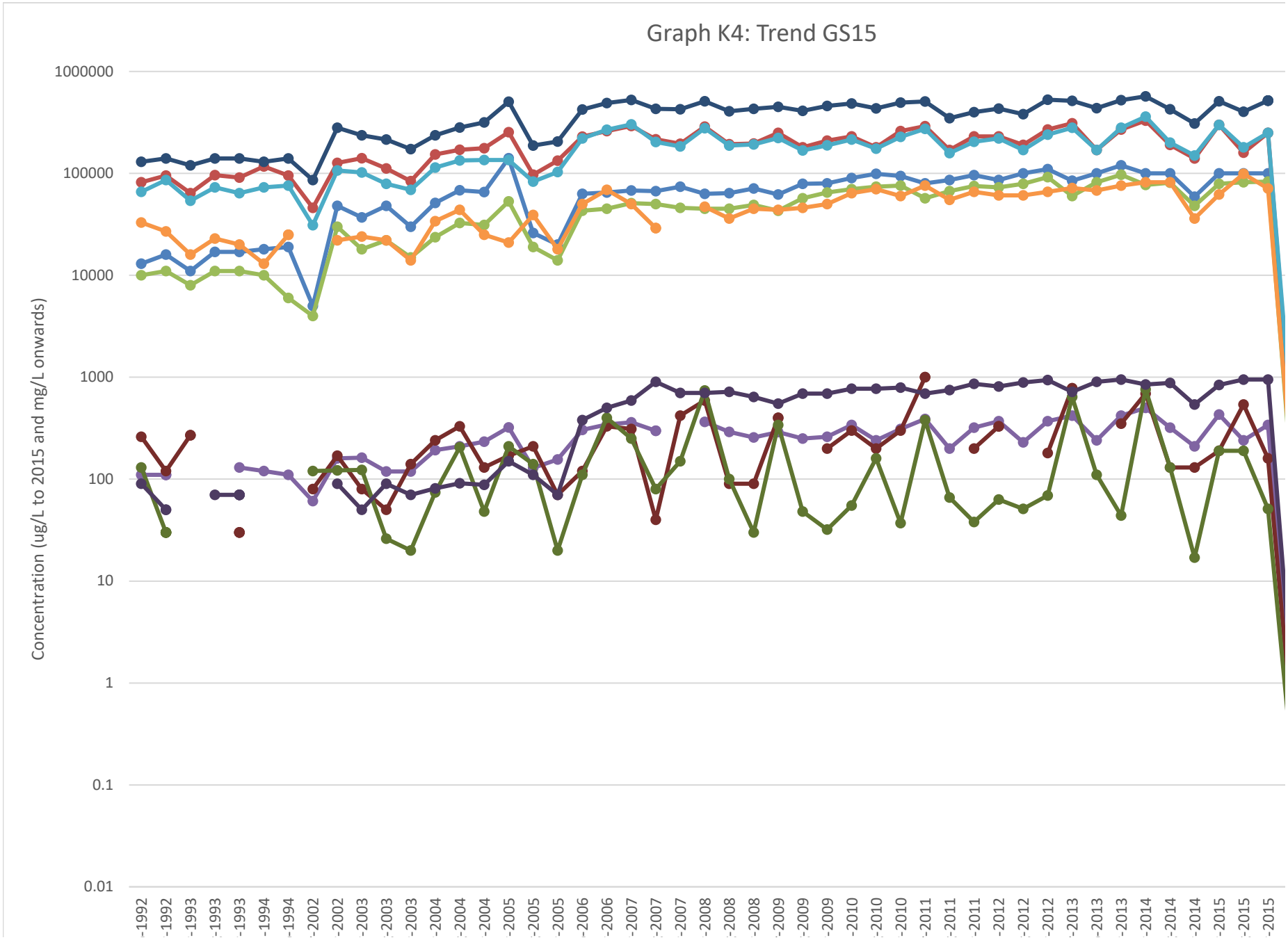
2015


Graph K4: Trend GS15
Concentration (ug/L to 2015 and mg/L onwards)
1000000
100000
10000
1000
100
10
1
0.1
0.01
-1992
-1992
-1993
-1993
-1993
-1994
-1994
-2002
-2002
-2003
-2003
-2003
-2004
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-2005
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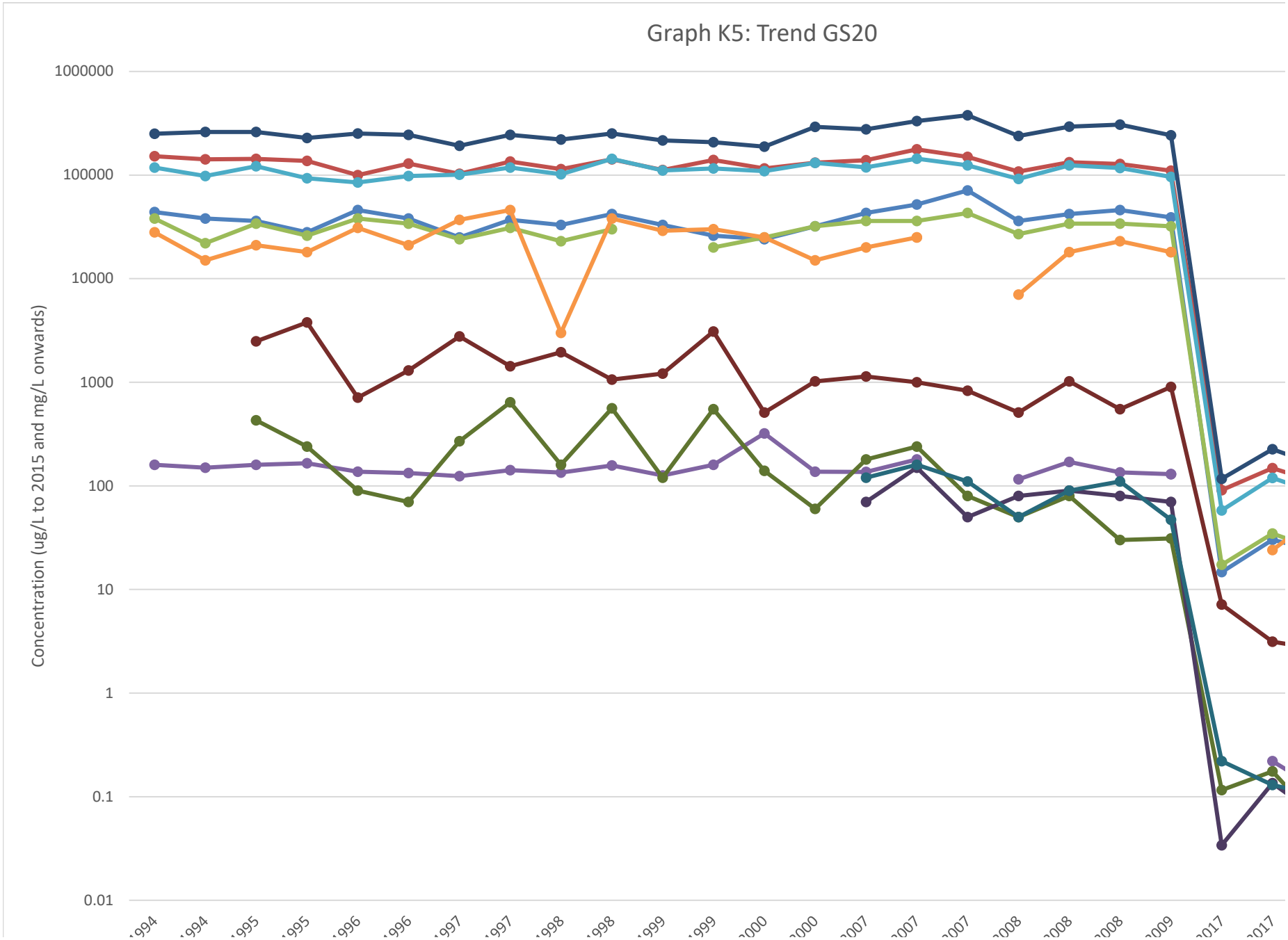
-2015


Graph K5: Trend GS20
Concentration (ug/L to 2015 and mg/L onwards)
1000000
100000
10000
1000
100
10
1
0.1
0.01