REPORT

Audit of H1 2020 Performance Reports

Iluka Resources Limited, Douglas Mine Pit 23 by-product disposal site

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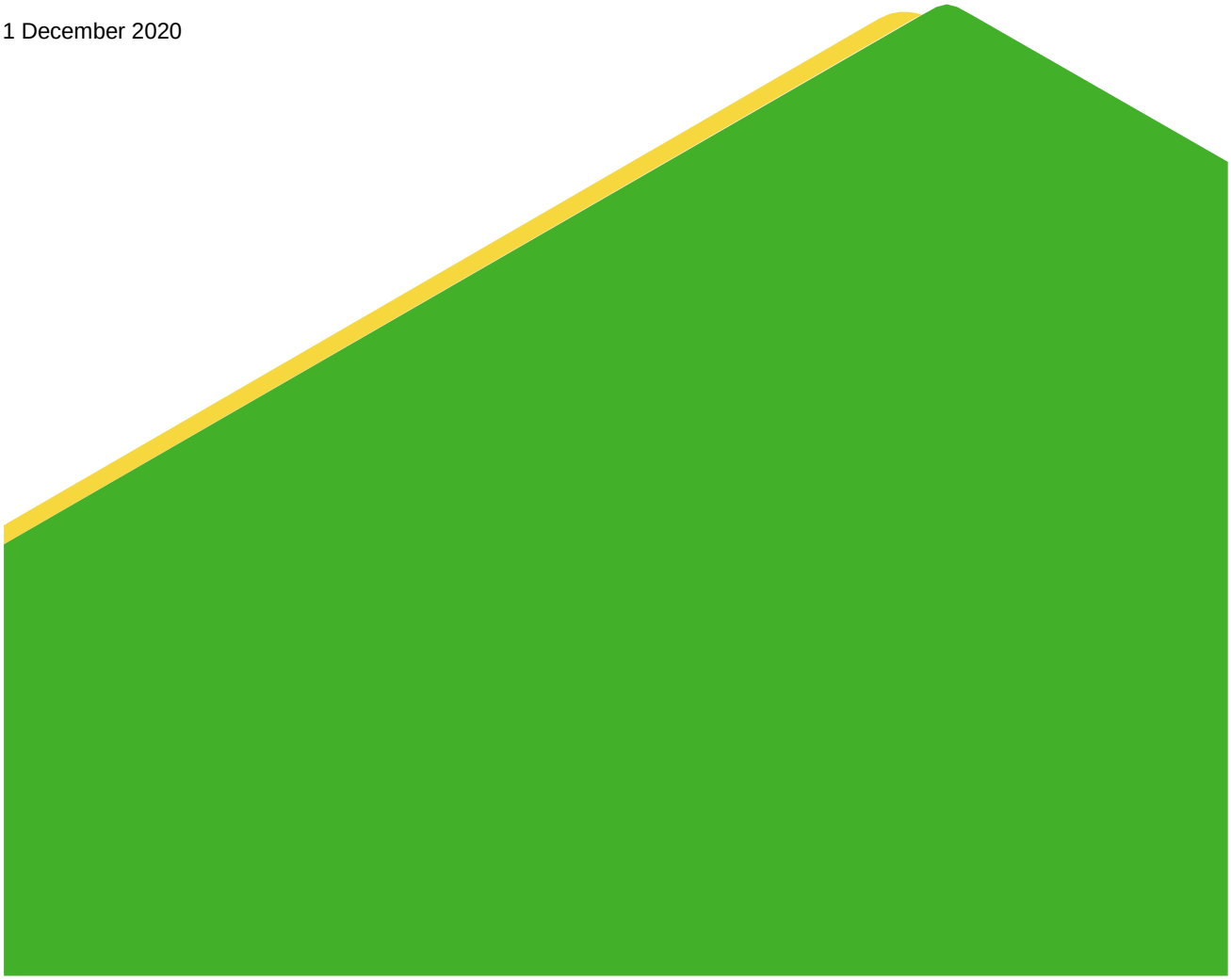

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1.0 INTRODUCTION

Golder Associates Pty Ltd (Golder) was engaged by Iluka Resources Limited (Iluka) to undertake an independent audit of the Performance Reports for the Pit 23 By-products Disposal Facility, located in the municipality of the Horsham Rural City in the Kanagulk area (the site). The independent audit (audit) is a requirement of Planning Permit 15-105 (the planning permit), issued by Horsham Rural City Council (Council). The Performance Reports, prepared by Iluka, provide a summary of the waste acceptance, monitoring and management undertaken at the site during the half year ended 30 June 2020. The two Performance Reports prepared by Iluka for H1 2020 are as follows:

- *Environmental Management Plan and Rehabilitation Performance Report* (EMP Performance Report) H1 2020; and,
- *Incoming Waste Monitoring Plan* Performance *Report* (IWMP Performance Report) H1 2020.

The EMP Performance Report is audited against the criteria listed in Section 12.2 and 13.2 of Iluka's *Pit 23 Environmental Management Plan* Rev 4 (EMP). Similarly, the IWMP Performance Report is audited against the criteria listed in Section 6 of Iluka's *Pit 23 Incoming Waste Monitoring Plan* Rev 4 (IWMP).

The H1 2020 Performance Reports are provided in APPENDIX C (IWMP) and APPENDIX D (EMP).

The Performance Reports cover the period from 1 January 2020 to 30 June 2020.

2.0 PLANNING PERMIT REQUIREMENTS

Regarding the audit of the IWMP and EMP Performance Reports, the relevant conditions of the planning permit include:

> *14 (e): annual auditing of records to verify compliance with the requirements of the Incoming Waste Monitoring Plan (IWMP).*
>
> *20: The annual performance report must be reviewed by an independent suitably qualified person with expertise in risk management plans in the context of mines and quarries, and is an environmental auditor appointed under the EP Act 1970.*
>
> *31: The permit holder must submit an annual performance statement (within the wider EMP Annual Report).*
>
> *42: The permit holder must prepare an EMP and Rehabilitation performance review report covering its compliance requirements under the various sub-components of the EMP and R&VMP* [Rehabilitation and Vegetation Management Plan] *for provision to a suitably qualified environmental auditor as agreed by the Responsible Authority annually or less frequently as agreed to in writing, by the Responsible Authority.*
>
> *43: The environmental auditor must review the EMP and Rehabilitation performance review report and provide conclusions on the report's content against its key sub-components, and recommendations for any required amendments to the plans ('auditor's review').*

2.1 Methodology

The Performance Reports were audited against the relevant requirements of Section 6 of the IWMP and Section 12.2 and 13.2 of the EMP. Additional documentation was sought from Iluka as needed to provide evidence of compliance with relevant sections of the IWMP and EMP.

Due to the limited activities occurring at the site, a site inspection was not conducted as part of the audit. Assessment was therefore limited to desktop review of the Performance Reports and supporting documentation.

The recommendations of the previous Performance Reports (AECOM, 2017; Golder, 2018; Golder, 2019) were also considered and a review of Iluka's response to these recommendations is provided in Section 8.0.

The audit of the IWMP Performance Report, EMP Performance Report and actions undertaken regarding previous audit report recommendations assessed compliance according to:

- 'Compliant'. The information indicated that the relevant requirement of the planning permit or plan had been met.
- 'Not Compliant'. The information indicated that the relevant requirement of the planning permit or plan had not been met.
- 'Not Applicable'. The relevant requirement was not applicable due to the operational status of the plant or the Auditor was unable to determine compliance due to the requirement being outside the scope of the audit.

2.2 Incoming Waste Monitoring Plan

The IWMP has been prepared to satisfy the requirements of Condition 14 of the Planning permit, namely:

> *14. Within 90 days of the commencement of this permit operating, an Incoming Waste Monitoring Plan (IWMP) must be submitted to the satisfaction of the responsible authority and the Department of Health and Human Services for approval by the responsible authority. Three copies of the IWMP must be submitted to the responsible authority. When approved by the responsible authority the IWMP will be endorsed and it will then form part of this permit. The IWMP must provide for:*
>
> *a. A monitoring and reporting system for ensuring that materials disposed of to Pit 23 are limited to those permitted under the conditions of this permit;*
>
> *b. Recording of the origin, per load weight and radioactive properties of each incoming load;*
>
> *c. Monitoring to ensure all vehicles transporting waste have fully secured and contained loads and that all waste loads have been transported in compliance with licensed requirements under the Radiation Act 2005;*
>
> *d. Records of any transport incidents or spills and remedial actions taken in the event of such incidents; and*
>
> *e. Annual auditing of records to verify compliance with the requirements of the IWMP.*

This audit has reviewed the IWMP Performance Report against relevant planning permit criteria, and Section 6 of the IWMP.

2.3 Environmental Management Plan

The EMP has been prepared by Iluka to provide a framework for the management and monitoring of disposal operations at Pit 23. The EMP outlines:

- The operational, environmental and legal context for the permitted development;
- The operational methods to be used;

- Environmental issues that could compromise environmental performance if not managed appropriately; and,
- The monitoring program to be used for assessing the environmental performance and impact of Pit 23.

This audit has reviewed the EMP Performance Report against relevant planning permit criteria, and Section 12.2 and 13.2 of the EMP.

2.4 Rehabilitation and Vegetation Management Plan

The *Rehabilitation and Vegetation Management Plan 2017* (RVMP) has been prepared by Iluka to provide a detailed management framework for rehabilitation of Pit 23. The RVMP outlines:

- The end use and rehabilitation objectives for the subject land;
- The methods to be used for rehabilitation and revegetation;
- Key issues that may compromise rehabilitation outcomes; and,
- Completion criteria and further monitoring post completion.

In relation to the audit of the *Rehabilitation and Vegetation Management Plan 2017,* the relevant planning permit requirements are:

> *42: The permit holder must prepare an EMP and Rehabilitation performance review report covering its compliance requirements under the various sub-components of the EMP and RVMP for provision to a suitably qualified environmental auditor as agreed by the Responsible Authority annually or less frequently as agreed to in writing, by the Responsible Authority.*
>
> *43: The environmental auditor must review the EMP and Rehabilitation performance review report and provide conclusions on the report's content against its key sub-components, and recommendations for any required amendments to the plans ('auditor's review').*

As of the writing of this audit, Pit 23 was still accepting material and as such, rehabilitation or revegetation has not yet been undertaken by Iluka. There are therefore no findings regarding the RVMP.

3.0 ENVIRONMENTAL AUDITOR

This audit review was undertaken by Bruce Dawson who is appointed as an Environmental Auditor (Industrial Facilities) under the *Environment Protection Act* 1970.

Bruce has over 30 years' experience in environmental management issues, encompassing industrial planning and assessment, auditing and policy development. Bruce joined Golder in 2010 as a Principal Environmental Consultant leading the development of performance assurance and industry sustainability services in the Melbourne office.

Bruce has extensive experience in assessing environmental performance and impact and associated strategies for effective management of statutory obligations in waste management, industrial operations, land development and infrastructure development.

Bruce was previously employed with the Environment Protection Authority Victoria for 24 years. He was part of EPA's executive leadership team for 8 years, providing a key role in leading operational and policy program areas and lead implementation of EPA's environmental audit program.

Bruce undertakes auditing and assessment of landfill design and construction and risks associated with landfill gas migration. Bruce has extensive experience in development of environmental management plans and environmental policy to reduce environmental impact and compliance risks.

Bruce was supported by the following Golder personnel:

- Stephen Makin, Senior Hydrogeologist,
- Coen Romalis, Environmental Scientist.

4.0 SITE LOCATION

The Douglas Mineral Sands Mine (shown in figure 1) is located in the municipality of the Horsham Rural City in the Kanagulk area. Iluka produces a number of by-products from its heavy mineral processing operation at its mineral separation plant (MSP) in Hamilton. The by-products produced from this processing are transported by truck from the Hamilton site to the Douglas Mine Site, where it is then disposed of in a mining void known as Pit 23. Pit 23 is shown in Figure 1. The IWMP and EMP apply management controls specifically to Pit 23 and its associated operations.

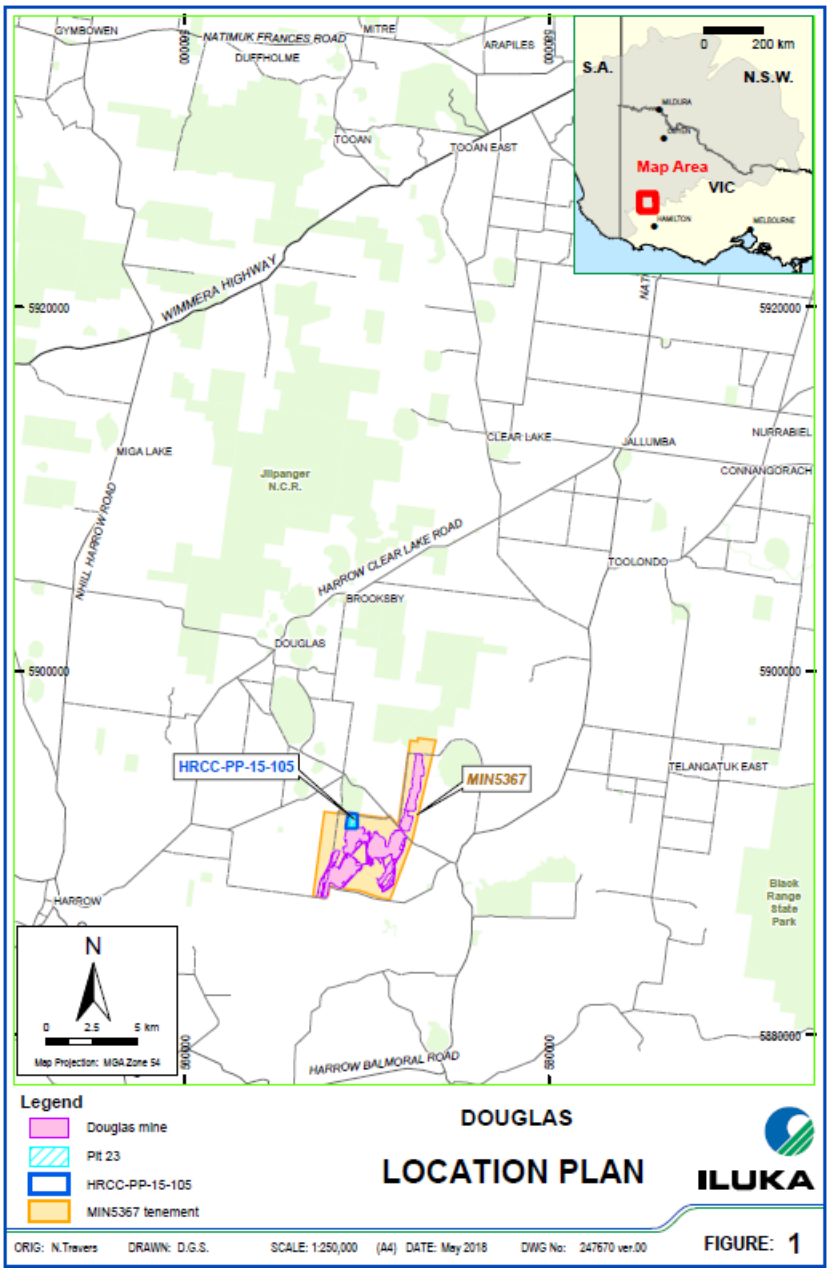

Figure 1: Site Location Plan

5.0 INCOMING WASTE MONITORING PLAN PERFORMANCE REPORT

The Auditor's review of the IWMP Performance Report is attached as APPENDIX A. The review found that the Performance Report is in accordance with Section 6 of the IWMP.

6.0 ENVIRONMENTAL MANAGEMENT PLAN AND REHABILITATION PERFORMANCE REPORT

The Auditor's review of the EMP Performance Report is attached as APPENDIX B. The review found that the Performance Report is generally in accordance with Section 12.2 and 13.2 of the EMP. The Auditor notes the following:

- Iluka proposes to install an additional well between GW04 and BW36A, as previously recommended, approximately 130 m from the pit crest, subject to the location providing safe installation and ongoing access. The Auditor agrees with the proposed location for the replacement well.

Previous recommendations to review the EMP have been considered by development of a proposed revised Version 5 EMP. The Auditor's review of the EMP revision will be provided separately.

7.0 REHABILITATION AND VEGETATION MANAGEMENT PLAN

The RVMP reporting requirements are listed in Section 2.4 of this report. Iluka's Performance Report for the RVMP was included in the EMP Performance Report.

Due to the current and continued operation of Pit 23, no actions required by the RVMP were undertaken during the H1 2020 reporting period.

8.0 OTHER PREVIOUS AUDIT FINDINGS

The audit of 2017 Mineral Sands By-product disposal reports (AECOM, 2017) was the first audit of the IWMP and EMP undertaken. Iluka has responded to a number of these recommendations in the 2018 and 2019 reporting periods. Outstanding recommendations from these reports are provided below.

Additionally, the recommendations from the audit of the 2018, H1 2019 and H2 2019 reporting periods by Golder (19121052-001-R, Golder, 2018; 19121052-003-R, Golder, 2019; 19121052-006-R, Golder, 2020), are presented with Iluka's response below.

Table 1: Response to previous audit recommendations.

Previous Audit Recommendation	Observation	Action Completed in H1 2020?	Recommendations
IWMP Performance Report			
Golder, 2018: Due to the infrequent disposal of material Iluka should consider revising the IWMP if it continues to be impracticable to calculate a weekly average for radionuclide properties.	Golder is currently undertaking a review of updated IWMP, EMP and RVMP for Iluka. This recommendation will be incorporated in the update.	Subject to Auditor review of the EMP Rev 5.	
Golder, 2018: As the IWMP will have been in operation for two years as at 17 July 2019, a review should be undertaken during the next reporting period. Iluka has confirmed that a review has commenced.	Golder is currently undertaking a review of updated IWMP, EMP and RVMP for Iluka, as part of the biennial update.	Subject to Auditor review of the EMP Rev 5.	
EMP and RVMP Performance Report:			
Golder, 2018: Future interpretations of results from GW04 should consider whether this well is located down-hydraulic gradient from Pit 23 (i.e. is it on the predicted flow path?).	Groundwater flow contours and numerical model flow paths presented in H1 2019 report indicate that GW04 is not directly down-gradient from Pit 23.	Pending	Golder has been advised by Iluka that installation of an additional bore to replace GW04 has been scheduled for Q4 2020.
Golder, 2019; Golder, 2020: An additional well between BW36 and GW04 is recommended to be installed, considering that	BW36 (blocked) was decommissioned and replaced with a new well BW36A in a similar location. The spacing between BW36A and GW04 of approximately 600 m is	Pending	Golder has been advised by Iluka that installation of an additional bore to

GW04 may not be located down-hydraulic gradient from Pit 23.	not considered to meet the intent of the monitoring network specified by the EMP.		replace GW04 has been scheduled for Q4 2020. The indicative location of the well is approximately 130 m from the pit crest, subject to the location providing safe installation and ongoing access. The Auditor agrees with the proposed location for the replacement well.
Golder, 2018: The EMP listed trigger levels for ion ratios should be reconsidered to identify consistent declining trends in concentration outside a range of natural fluctuation. Resampling for confirmation of exceedances should be conducted within the specified timeframe.	EMP has been revised (Version 5) for application to future monitoring. Auditor comment provided separately.	Subject to Auditor review of the EMP Rev 5.	
Golder, 2018: The EMP should be amended to refer to SEPP (Waters) and description of associated beneficial uses and environmental quality objectives updated as required. Iluka should review TDS groundwater monitoring data to ensure the appropriate	EMP has been revised (Version 5) for application to future monitoring. Auditor comment provided separately.	Subject to Auditor review of the EMP Rev 5.	

groundwater segment as described in SEPP (Waters) is identified.			
General Recommendations			
Golder, 2018: The EMP contains a significant amount of background information on the environmental conditions relevant to Pit 23. This information provides useful context on the local conditions and aids in interpretation of monitoring results, however, to assist in the implementation of the EMP, it is recommended that this information be simplified or removed from the EMP (but available to the Auditor undertaking the review).	Golder is currently undertaking a review of updated IWMP, EMP and RVMP for Iluka. This recommendation will be incorporated in the update.	Subject to Auditor review of the EMP Rev 5.	
Golder, 2018: The management actions and monitoring requirements in the EMP should be clarified and consolidated to make it easier for Iluka personnel to clearly identify requirements and associated procedures and to ensure the contents of the Performance Report align with the requirements of the EMP.	Golder is currently undertaking a review of updated IWMP, EMP and RVMP for Iluka. This recommendation will be incorporated in the update.	Subject to Auditor review of the EMP Rev 5.	
Golder, 2018: The reporting requirements currently in Section 12.2 of the EMP should be reviewed to ensure they are consistent with all of the relevant monitoring requirements contained in Sections 7, 8 and 9 of the EMP	Golder is currently undertaking a review of updated IWMP, EMP and RVMP for Iluka. This recommendation will be incorporated in the update.	Subject to Auditor review of the EMP Rev 5.	

9.0 REFERENCES

Iluka Resources Ltd, 2020. Planning Permit 15-105, EMP & Rehabilitation Performance Report H1 2020. (UDOCS 0090-426461582-1177, FINAL_Rev0).

Iluka Resources Ltd, 2020. Planning Permit 15-105, Incoming Waste Monitoring Plan Report H1 – 2020 (UDOCS 0090-426461582-1173, Final Rev0).

AECOM Audit of 2017 Mineral Sands By-product Disposal Annual Reports

Golder Associates, 2018. Audit of 2018 Mineral Sands By-product Disposal EMP and IWMP Annual Reports (19121052-001-Rev0).

Golder Associates, 2019. Audit of H1 2019 Mineral Sands By-product Disposal EMP and IWMP Annual Reports (19121052-003-Rev1).

Golder Associates, 2020. Audit of H2 2019 EMP and IWMP Performance Reports, Douglas Mine Pit 23 by-product disposal site (19121052-006-Rev1).

Incoming Waste Monitoring Plan (Rev 4) 5 April 2017.

Environment Management Plan (Rev 4) 6 July 2017.

Rehabilitation and Vegetation Management Plan (Rev3) 12 April 2017.

Radiation Management Plan- Murray Basin Operations (Rev2) August 2016.

Iluka Analytic Sampling Procedures

Analytical - Analysis using XRF 11/6/15.

Analytical - Moisture Determination 10/9/15.

Analytical - Sample Preparation - Fusion of Heavy Mineral 4/12/08.

Analytical - Sample Preparation - Pulverising Grinding Samples 18/10/14.

Analytical - Sample Preparation - Riffle Splitting 23/10/14.

Analytical - XRF QA 23/7/18.

High Volume Air Sampler, Sampling Procedure 26/7/17.

Trucking Procedures

Work Instruction for Loading of Monazite &Ilmenite CL product at Iluka MSP V8 Kalari P/L 28/09/2015.

Emergency Response Procedure for Non Conductor Magnetics V2 Kalari P/L 8/02/2011.

Work Instruction for unloading MSP rejects at Pit 23 V2 Kalari P/L 13/08/2015.

10.0 IMPORTANT INFORMATION

Your attention is drawn to the document titled - “Important Information Relating to this Report”, which is included in APPENDIX E of this report. The statements presented in that document are intended to inform a reader of the report about its proper use. There are important limitations as to who can use the report and how it can be used. It is important that a reader of the report understands and has realistic expectations about

those matters. The Important Information document does not alter the obligations Golder Associates has under the contract between it and its client.

11.0 CLOSING

If you have any queries about this report, please contact Bruce Dawson on 03 8862 3774 or at bdawson@golder.com.au.

Signature Page

Golder Associates Pty Ltd

Coen Romalis
Environmental Scientist

Bruce Dawson
Principal Environmental Consultant

CER-SLM/BED/cer

https://golderassociates.sharepoint.com/sites/107372/project files/6 deliverables/19121052-009-r-h1 2020 annual review/19121052-009-r-rev0.docx

APPENDIX A

IWMP Performance Report Audit

Table 2: IWMP Performance Report Audit

Source & Requirement	Observations	Compliance	Recommendations
Planning Permit Clause 14. Within 90 days of the commencement of this permit operating, an Incoming Waste Monitoring Plan (IWMP) must be submitted to the satisfaction of the responsible authority and the Department of Health and Human Services for approval by the responsible authority. Three copies of the IWMP must be submitted to the responsible authority. When approved by the responsible authority the IWMP will be endorsed and it will then form part of this permit. The IWMP must provide for:		Compliant	
a) A monitoring and reporting system for ensuring that materials disposed of to Pit 23 are limited to those permitted under the conditions of this permit	Section 3.1 of the IWMP Performance Report provides a spreadsheet summary record stating material to be disposed of is permitted. No waste was disposed to Pit 23 during the H1 2020 reporting period.	Compliant	
b) Recording the origin, per load weight and radioactive properties of each incoming load.	Section 3.1 of the IWMP Performance Report provides a spreadsheet summary recording the origin and load weight of each material load. Section 3.2 of the IWMP Performance Report provides a summary of the radioactive properties of each material load.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
c) Monitoring to ensure all vehicles transporting waste have fully secured and contained loads and that all waste loads have been transported in compliance with licensed requirements under the Radiation Act 2005;	*Work instruction for Loading of Monazite and Ilmenite CL product at the Iluka MSP- Hamilton site* identifies that loads are to be secured and contained.	Compliant	
d) Records of any transport incidents or spills and remedial actions taken in the event of such incidents.	Section 3.3.1 of the IWMP Performance Report states that no transport incidents or spillages occurred over H1 2020 period.	Compliant	
e) Annual auditing of records to verify compliance with the requirements of the IWMP	This audit fulfils this requirement.	Compliant	
Amendments to the IWMP must be to the satisfaction of the responsible authority and Department of Health and Human Services and must only be made on written approval of the responsible authority.	No amendments to the IWMP were made during H1 2020. The auditor notes that the IWMP is to be updated in 2020 in accordance with the two-year IWMP review stipulated in the IWMP.	NA	
IWMP Section 2 Acceptance Criteria			
Source Site. Disposal into Pit 23 is restricted to materials from the following source sites; ■ the Hamilton MSP; ■ the Douglas mineral sands mine; ■ the Kulwin mineral sands mine site (located 28 kilometres east of Ouyen);	Section 3.1 of the IWMP Performance Report states that no material was disposed into Pit 23 during the H1 2020 reporting period.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
■ the Woornack Rownack and Pirro mineral sands mine site (located 20 km southwest of Ouyen); ■ Facilities operated by transport contractors associated with the Port of Portland including the heavy mineral concentrate (HMC) storage and train loading facilities at Hopetoun; and ■ storage facilities in Portland used for storage of the Hamilton MSP products			
Radioactivity. Disposal to Pit 23 is restricted to materials that contain and are contaminated with naturally occurring radioactive material (NORM), which are: ■ mineral by-products from the Hamilton MSP, including gypsum produced at the MSP; ■ used Bag-house dust filter bags (used filter bags); and ■ concrete or steel from the sites listed in Section 2.1 above.	Section 3.2 of the IWMP Performance Report provides a summary of the radioactive properties of each material load. Section 3.1 of the IWMP Performance Report states that no material was disposed into Pit 23 during the H1 2020 reporting period.	Compliant	
By-products for disposal. The Hamilton MSP by-products to disposed into Pit 23 are; ■ Wet circuit rejects ■ Dry circuit rejects; ■ Gypsum	Section 3.1 of the IWMP Performance Report states that no material was disposed into Pit 23 during the H1 2020 reporting period.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
■ Bag hose dust filter bags ■ Contaminated concrete and steel			
Material Description and physical form. Import for disposal into Pit 23 is restricted to the following materials: ■ non-liquid waste by-products associated with or sourced though mineral sands processing undertaken at the Hamilton MSP containing or contaminated with NORM; ■ used dust filter bags from the Hamilton MSP containing or contaminated with NORM; and ■ NORM-contaminated concrete and steel associated with plant and infrastructure from the sites listed in Section 2.1 above	Section 3.1 of the IWMP Performance Report states that no material was disposed into Pit 23 during the H1 2020 reporting period.	Compliant	
IWMP Section 3. Monitoring			
In accordance with heavy vehicle mass management requirements under Chain of Responsibility legislation administered by the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), the weight of every truck load of material to be disposed of will be measured at the point of loading, or the nearest possible location, prior to transport to the Douglas mine site. The load weight shall be measured by one of the following means;	Section 3.1 of the IWMP Performance Report lists the load weight of each delivery to Pit23. During the H1 2020 reporting period, no material was disposed to Pit 23. Iluka has advised that a public commercial calibrated weighbridge is used to weigh material disposed into Pit23.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
■ calibrated weighbridge ■ calibrated on-board weighing systems (such as airbag weightometers) ■ any other mass measurement system or methodology approved by the DEDJTR for demonstrating compliance with heavy vehicle mass management requirement			
For each individual load, the following information shall be recorded in an electronic data management system: ■ load weight ■ material description ■ radioactive properties, being ▪ concentrations of uranium and thorium in MSP by-products based on the weekly average of the by products produced ▪ measured concentrations of uranium and thorium in used filter bags, concrete and steel	Section 3.1 of the IWMP Performance Report provides information on load weight and material description. Section 3.2 of the IWMP Performance Report provides a summary of the radioactive properties of each material load. During the H1 2020 reporting period, no material was disposed to Pit 23.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
IWMP Section 4 Control of access for disposal			
Prior to transport of materials to be disposed of in Pit 23, vehicles will be checked: ■ for compliance with the ARPANSA Code of Practice for Safe Transport of Radioactive Material; and ■ to confirm and ensure loads are fully secured and contained. Deliveries must enter the site via Elliotts Road and the mine access road shown on the site plan (Figure 2). All vehicles entering the site, including those carrying materials for disposal to Pit 23, must be authorised and must pass through a boom gate that may only be opened with a swipe card issued to authorised personnel or by an authorised Iluka employee at the site office. Each vehicle must then stop at the site office to: ■ provide a record of the load being delivered (origin, material type, load weight); and ■ comply with any site-specific requirements that apply for entering the site. Vehicles carrying materials for disposal for which the required information is not provided or is not in conformance with the permitted use will not be allowed to dispose of their loads to Pit 23.	*Work instruction for Loading of Monazite and Ilmenite CL product at the Iluka MSP- Hamilton site* reviewed. Deliveries were not observed as part of this audit. Furthermore, during the H1 2020 reporting period, no material was disposed to Pit 23.	NA	

<table>
<tr><th>Source & Requirement</th><th>Observations</th><th>Compliance</th><th>Recommendations</th></tr>
<tr><td colspan="4">IWMP Section 5 Monitoring Program</td></tr>
<tr><td>In order to confirm the presence of NORM within the MSP by-products, Table 2 in the IWMP specifies the samples collected and quantity measurements made:
Table 2: MSP by-product sampling and quantity measurement
<table>
<tr><th></th><th>Sampling Method</th><th>Quantity</th></tr>
<tr><td colspan="3">Wet Circuits Rejects</td></tr>
<tr><td>FPC Sand Tailing</td><td>Automatic Sampler within plant producing daily composite from frequent cuts</td><td>Continuous flow and density measurement to provide daily solids tonnage</td></tr>
<tr><td>FPC Fines</td><td>Manual sample from thickener underflow collected daily</td><td>Continuous density measurement and volume measurement from positive displacement pump operation to provide daily solids tonnage</td></tr>
<tr><td>ZWC Sand Tailings</td><td>Automatic Sampler within plant producing daily composite from frequent cuts</td><td>Continuous flow and density measurement to provide daily solids tonnage</td></tr>
<tr><td colspan="3">Dry Circuits Rejects</td></tr>
<tr><td>PDC Non-Conductor magnetics</td><td>Automatic Sampler within plant producing daily composite from frequent cuts</td><td>Weightometer integrated to provide daily tonnage.</td></tr>
<tr><td>DCC Magnetics</td><td>Automatic Sampler within plant producing daily composite from frequent cuts</td><td>Weightometer integrated to provide daily tonnage.</td></tr>
<tr><td>Gypsum</td><td>Manual sample from bunker collected daily</td><td>Continuous density measurement and volume measurement from positive displacement pump operation to provide daily solids tonnage</td></tr>
</table></td><td>The MSP was not operating during H1 2020, so no data was available.</td><td>NA</td><td></td></tr>
<tr><td>Bag-house dust filter bags.
Prior to transport, sections of used filter bag cloth of approximately 100 x 100 mm will be cut from at least five used filter bags per consignment and each section submitted for analysis</td><td>The MSP was not operating during H1 2020 and the IWMP Performance Report did not identify that filter bags were disposed of during H1 2020, so no data was available.</td><td>NA</td><td></td></tr>
</table>

Source & Requirement	Observations	Compliance	Recommendations
NORM contaminated concrete and steel. The sampling method applied will be dependent on the precise nature of the material and will be developed and applied on a case-by-case basis. Representative samples of each consignment will be collected and submitted for analysis	The MSP was not operating during H1 2020 and the IWMP Performance Report did not identify that concrete and steel were disposed of during H1 2020, so no data was available.	NA	
Mineral separation plant by-products. Analysis of MSP by-products is undertaken as follows: ■ desiccation within the MSP laboratory oven to remove moisture; ■ pulverisation (as required) to produce a fine granular matrix; ■ splitting to produce a representative sample of appropriate size; ■ fusion of the sample to produce a glass bead; and ■ assay of the bead using an X-Ray Fluorescence Spectrophotometer to determine the concentrations of uranium and thorium. The assay results are uploaded into Iluka's production statistics database as are the results of tonnage measurements of the various streams. The data is then used to calculate the uranium and thorium concentrations in each of the wet circuits rejects, dry circuits rejects and gypsum.	Analytical procedures were provided and reviewed.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
Analysis of filter bag samples will be undertaken at either Iluka's Hamilton laboratory or an external laboratory to determine the concentrations of uranium and thorium.	Section 3.1 of the IWMP Performance Report states no filter bags were disposed of to Pit 23 during H1 2020 reporting period.	NA	
Samples of NORM contaminated concrete and steel will be analysed at either Iluka's MSP lab or an external laboratory to determine the concentrations of uranium and thorium.	Section 3.1 of the IWMP Performance Report states no concrete or steel was disposed of into Pit 23 during H1 2020 reporting period.	NA	
IWMP Reporting			
All data generated from the monitoring described above will be recorded electronically in a data base managed by Iluka. On an annual basis a report will be prepared showing the following:			
For each load: ■ Source site ■ Load weight ■ Radioactive properties being: ▪ assigned concentration of uranium and thorium in MSP mineral byproducts, based on weekly averages of by-products produced; and ▪ measured concentrations of uranium and thorium in used filter bags, concrete or steel.	Section 3.1 and 3.2 of the IWMP Performance report provides the source, weight and radioactive properties of the received material. During the H1 2020 reporting period, no material was disposed into Pit 23.	Compliant	

Source & Requirement	Observations	Compliance	Recommendations
For the report period: ■ average concentration of uranium and thorium for the MSP by-products, used filter bags, concrete and steel; ■ total quantities of materials disposed of to Pit 23; and ■ records of any transport incidents or spills and remedial actions taken in the event of such incidents.	Section 3.2 of the IWMP Performance Report provides information on the radioactivity analysis of MSP by-products disposed. Section 3.3 of the IWMP Performance Report states no transport incidents or spillages occurred during the reporting period.	Compliant	
The Performance Report will be provided to a suitably qualified auditor who will complete an audit of the data provided and compliance with this IWMP.	This report is provided in accordance with the requirement of the IWMP.	Compliant	
Copies of the Performance Report and the audit report will be submitted to the Responsible Authority.	As the Auditor understands that Iluka will submit the performance reports and the audit report when complete, compliance with this requirement cannot be verified. Evidence of submission of a previous Audit report was provided to the Auditor.	Compliant	
IWMP Review			
This IWMP shall be reviewed and amended if necessary, to take account of: ■ advances in knowledge and technology pertaining to by-product disposal; included in this report. ■ any significant change in operations; ■ changes in applicable legislation or standards;	A review and update of the IWMP is currently being undertaken and is anticipated to be submitted to the Relevant Authority in H2 2020.	Compliant	The IWMP is currently being reviewed by the Auditor and should be updated in the next reporting period.

Source & Requirement	Observations	Compliance	Recommendations
■ changes in Iluka's EHS standards; ■ or every two (2) years, which-ever occurs soonest.			
Proposals for amendment of this plan will be prepared to the satisfaction of the Responsible Authority and the Department of Health and Human Services.	No amendments to the IWMP have been submitted in H1 2020. A review and update of the IWMP is currently being undertaken and is anticipated to be submitted to the Relevant Authority in H2 2020.	Compliant	

APPENDIX B

EMP Performance Report Audit

Table 3: EMP Performance Report Audit.

Requirement	Observations	Compliance	Recommendations
EMP Section 12.2			
A review of performance will be completed and an EMP and Rehabilitation Performance Report prepared annually, or less frequently as may be agreed with the Responsible Authority.	The Environmental Management Plan and Rehabilitation Performance Report has been prepared for H1 2020. Section 2.5 of the EMP Performance Report states that due to continued operations within Pit 23, no actions relevant to **rehabilitation and vegetation management** were undertaken in the H1 2020 reporting period.	Compliant	
Each EMP and Rehabilitation Performance Report will include for the period from the previous EMP and Rehabilitation Performance Report:			
■ the total tonnage of materials disposed of;	Section 3 of the EMP Performance Report states that no wastes were disposed into Pit 23 during the H1 2020 reporting period.	Compliant	
■ the average and maximum number of deliveries of materials for disposal per day; and	Section 3 of the EMP Performance Report states that no wastes were disposed into Pit 23 during the H1 2020 reporting period.	Compliant	
■ the results of all measurements of:			

Requirement	Observations	Compliance	Recommendations
▪ noise levels made in response to a complaint regarding noise;	Section 4.3 of the EMP Performance Report states that because complaints regarding noise levels have not been made, noise monitoring as not been undertaken, as outlined by Section 10.1.4. of the EMP.	Compliant	
▪ PM_{10} concentrations in air at sensitive receptors;	Included in section 4.4 of the EMP Performance Report. There were no exceedances of the PM_{10} limit (0.06 mg/m3).	Compliant	
▪ the results of all measurements of groundwater level and quality;	Groundwater monitoring results are included in Section 4.1. Monitoring locations and frequency compliant with Table 7 of EMP. Wells requiring six-monthly gauging were gauged in January 2020 and February 2020. Wells requiring monthly gauging were gauged in each month of the reporting period. Well BW36A was substituted for the decommissioned BW36. The auditor notes that water level hydrographs Figures 4, 5, 6 left-hand panels do not extend to show 2020 results, but the right-hand panels do. Groundwater quality field parameters are required by the EMP to be collected at the same frequency as water level gauging. These results are presented in Appendix C: it appears that the required frequency was met. Six-monthly sampling and laboratory analysis is required by the EMP. This was conducted in January 2020, with additional sampling at some locations to follow up trigger actions. The method of sampling was	Compliant	Iluka has advised that previously recommended changes to EMP trigger values and contingencies will be addressed in updated EMP (Rev5).

	not detailed in the Performance report, however, a Ventia procedure was supplied separately by Iluka. The sampling procedure required purging of at least three well volumes, and stabilisation of field parameters prior to sampling, which were observed on field sheets. Laboratory reports from EML Chem and ALS were supplied, which demonstrate NATA or equivalent accreditation. In the H1 2020 period, no sampling of the QAQC samples required by the EMP (Section 7.6.8) were conducted (e.g. field duplicate or blank samples). Iluka has advised that the collection of QAQC samples has resumed in the current round of groundwater sampling (December 2020). No assessment of analytical data quality was provided in the Performance Report or undertaken in this audit. Comparison of Cl:SO_4 and Na:Ca ratios were made as required in the EMP. A decrease of more than 10% is a trigger for further investigation. Decreases of more than 10% were reported for seven samples for Cl:SO_4 and three for Na:Ca, however, on repeat sampling in February 2020 only GW01 was confirmed, for both ratios. The absolute concentration changes were relatively small (Ca increase from 58 mg/L to 92 mg/L and SO_4 increase from 400 mg/L to 470 mg/L). This well is located down hydraulic gradient from Pit 23, and groundwater modelling indicates a travel time on the order of 90 years. This ratio change triggered an assessment of other parameters against concentration-based trigger levels. This indicated selenium concentration at GW01 in January 2020 (0.018 mg/L)		

	and February 2020 (0.025 mg/L) was above the precautionary trigger level (85% of ANZECC guideline: 0.017 mg/L). An assessment of background conditions was made based on previous results, indicating a background concentration of 0.092 mg/L, considering results up to July 2019. The January 2020 and February 2020 selenium results were below this value. It was concluded that the changes in groundwater chemistry at GW01 were unlikely to be related to seepage from Pit 23. Surface water monitoring results are included in Section 4.2. There were no off-site discharges of stormwater reported, so sampling of off-site run-off monitoring sites was not required. Of the surface water monitoring sites inferred to be receptors of groundwater discharge, locations along the groundwater flow path from Pit 23 were dry when monitored during the reporting period. Sampling was undertaken from one other location (Costello's Creek) in April 2020 and another location (Shaw's Gully) in June 2020. Ionic ratios for these samples did not indicate greater than 10% decreases from the previous results.		

▪ the results of and actions taken in response to monitoring bore audits;	All bores were reported to be in serviceable condition, with BW36 replaced by BW36A in 2019. Iluka proposes to install an additional monitoring well in H2 2020 between GW04 and BW36A, as previously recommended.	Compliant	Golder has been advised by Iluka that an additional bore to replace GW04 has been scheduled for Q4 2020. The well is proposed to be located approximately 130 m from the pit crest, subject to the location providing safe installation and ongoing access. The Auditor agrees with the proposed location for the replacement well.
▪ environmental radiation monitoring results in accordance with the approved Radiation Management Plan, which will generally include:			
– radon concentration in air;	Results for Radon and Thoron monitoring in air were reported in Section 4.5.1 and did not exceed the reportable level during the reporting period. Sampling program is compliant with the Radiation Management Plan monitoring program (Section 9).	Compliant	
– gross alpha activity concentration of airborne dust; and	Gross alpha activity results were reported in Section 4.5.2. There was no reportable level/compliance limit detailed in the EMP Performance Report. A peak value of 0.173 mBq/m3 was recorded at Rises on 22 February, 2020, which is in line with historical values.	Compliant	

	Sampling program is compliant with the Radiation Management Plan monitoring program (Section 9).		
– radionuclide concentrations in groundwater and surface water	Surface water radionuclide monitoring results were reported in Section 4.2.2.2. There was no exceedance of trigger levels for uranium or radium in surface water samples. Groundwater radionuclide monitoring results were reported in Section 4.1.3.2. Of the radionuclide concentrations analysed, U^{238} exceeded the upper trigger level at seven locations and Ra^{228} exceeded the upper trigger level at one location during the reporting period. However, all were at up-hydraulic gradient or cross-gradient locations from Pit 23, and were not correlated with changes in major ion ratios, so are unlikely to be related to seepage from Pit 23.	Compliant	
▪ discussion of any implications of the results of groundwater level monitoring on groundwater flow paths from Pit 23; and	Groundwater elevation contours for June 2020 were presented in Section 5.2 of the H1 2020 Performance Report. Groundwater flow in June 2020 was inferred to be to the north beneath Pit 23, then turning to the north-east downgradient.	Compliant	
▪ descriptions of any model review and recalibration completed and the results of subsequent model reruns;	An update to the groundwater model was released in September 2019 (EMM, 2019), including water level monitoring results from March 2019. Groundwater elevation contours for June 2020 were broadly consistent with the modelled contours in the area of Pit 23. Modelled contours indicate flow to the north-north-east beneath Pit 23. Monitoring results reported do not	Compliant	

	trigger a requirement for a further update of the groundwater model.		
■ the maximum elevation of the upper surface of materials disposed of at the end of the reporting period	Included in Section 5.4 of the EMP Performance Report. As no waste was disposed during the H1 2020 reporting period, the maximum elevation remains unchanged at 193m AHD.	Compliant	
■ a detailed discussion of all non-compliant events including progress toward resolution;	Section 5.5 of the Performance Report states that there were no non-compliances during the reporting period. This is consistent with the monitoring results discussed above.	Compliant	
■ a summary of comments and complaints received and resulting actions;	Section 5.6 of the EMP Performance Report states that no complaints or comments were received during the H1 2020 reporting period.	Compliant	
■ completed actions from the previous year	There were no additional actions required to be completed during the reporting period.	Compliant	
■ plans for the next reporting period; and	This is addressed in Section 5.8 of the EMP Performance Report, including update of the EMP and IWMP, annual review of the Pit 23 Risk Analysis and Response Plan, and installation of an additional groundwater monitoring bore (GW04A).	Compliant	
■ discussion on other matters considered relevant by the Responsible Authority or Iluka.	Section 5.9.1 of the EMP Performance Report confirms that the geotechnical audit for 2019 was completed in December. The next geotechnical audit is scheduled for November 2020.	Compliant	

	Section 5.9.2 states that the review of the Risk Analysis Response Plan (RARP) was undertaken in April 2019. The update of the RARP will be undertaken as part of the review and update of the EMP and the RVMP, which is currently being undertaken and is anticipated to be submitted to the Responsible Authority in 2020.		
Deficiencies identified in an EMP and Rehabilitation Performance Report that can be addressed without amendment of this plan will be addressed as soon as practicable.	There was no section discussing this in the Performance Report. The auditor notes that the EMP, IWMP and RVMP are to be updated in 2020, where deficiencies can be addressed in this update.	Compliant	
EMP and Rehabilitation Performance Reports will be subject to review by an independent auditor as described in Section 13.2 of the EMP (Performance Review).	This audit report addresses the requirement.	Compliant	
EMP Section 13.2 Performance Review			
The performance review function is, in part, an audit function in that the selected auditor will be required to audit EMP and Rehabilitation Performance Report to confirm its completeness and accuracy in terms of compliance of the implementation of the plan and compliance with established standards and limits. In addition to these audit functions the selected auditor will be invited to recommend amendments to the EMP to ensure future compliance.	This audit report addresses the requirement.	Compliant	

There are a number of requirements of the expert in this case, including: · EPA auditor accreditation; · independence (from Iluka); · suitable qualifications; · expertise in risk management plans in the context of mines and quarries; and · to the satisfaction of the Responsible Authority. It is extremely unlikely that an expert meeting all of these requirements exist, however, an expert may choose to direct the work of others. A scope of works will be prepared and a number of EPA accredited auditors asked to submit proposals for the completion of performance reviews. Iluka will select the best candidate and provide the Responsible Authority with details of the candidate and their proposal for completion of works. The Responsible Authority may indicate its agreement with the candidate selected or request that details of an alternative be provided.	Iluka has selected Bruce Dawson to undertake the audit as a suitably qualified Auditor appointed under the Environment Protection Act 1970. More information about the auditor is included in Section 3.0 of this report.	Compliant	
A copy of the selected auditor's report will be provided to the Responsible Authority with each EMP Performance Report.	As the Auditor understands that Iluka will submit the performance reports and the audit report when complete, compliance with this requirement cannot be verified.	N/A	
Any deficiencies identified or recommendations made by the auditor will be dealt with in accordance with Conditions 44 and 45 of the Permit, which require:			

■ Copies of the EMP and Rehabilitation Performance Report and the auditor's report to be provided to the Responsible Authority with 28 days of receipt of the auditor's report	As the Auditor understands that Iluka will submit the performance reports and the audit report when complete, compliance with this requirement cannot be verified.	NA	
■ A description of steps to be taken, including timeframes, to address any non-compliance and recommendations identified in the EMP and Rehabilitation Performance Report and the auditor's report be provided to the Responsible Authority within 28 days of submission of the EMP and Rehabilitation Performance Report to the Responsible Authority; and	As the Auditor understands that Iluka will submit the performance reports and the audit report when complete, compliance with this requirement cannot be verified.	NA	
■ The Responsible Authority to determine whether amendment to the EMP or RVMP is required and the timeframe and conditions under which such amendment is to occur.	EMP and RVMP are currently under review.	NA	The EMP and RVMP is currently being reviewed by the Auditor and should be updated in the next reporting period.

APPENDIX C

Iluka IWMP Performance Report H1 2020

Iluka Resources Limited
Mineral Sands By-Product Disposal

Planning Permit 15-105

Crown Allotments 91, 94, 95, 96
Parish of Telangatuk

Incoming Waste Monitoring Plan

Report H1– 2020

Iluka Ref: UDOCS 0090-426461582-1173

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Revision	Details of review or changes	Prepared by	Date
0	Final	S. Alexander	18-09-2020

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1 Executive Summary

Iluka Resources Limited (Iluka) operates the Pit 23 by-products disposal facility located at the Douglas Mine in the Kanagulk area and within the municipality of the Horsham Rural City. Pursuant to Planning Permit 15-105 issued by Horsham Rural City Council (HRCC), and the subsidiary Pit 23 Incoming Waste Monitoring Plan (IWMP), the Pit 23 facility is approved for the disposal of:

- non-liquid waste by-products associated with or sourced though mineral sands processing undertaken at the Iluka Hamilton Mineral Separation Plant (MSP) containing or contaminated with Naturally Occurring Radioactive Material (NORM);
- used dust filter bags from the Hamilton MSP containing or contaminated with NORM; and
- NORM-contaminated concrete and steel associated with plant and infrastructure from nominated Iluka sites within Victoria.

This report is submitted in accordance with Section 6 of the IWMP and provides a summary of the wastes received into Pit 23 (origin, volumes/weights and radioactive properties) and records of incidents and remedial actions applicable to the reporting period of 1st January 2020 to 30th June 2020.

Key commentary on monitoring outcomes and performance against compliance objectives in the IWMP for the H1 2020 reporting period:

- No waste disposed into Pit 23 in the H1 2020 reporting period; and
- No transport incidents or spillages occurred.

Summary incoming waste data and incident information is provided in Section 3.

2 Introduction

Iluka Resources Limited (Iluka) operates the Pit 23 by-products disposal facility located at the Douglas Mine in the Kanagulk area and within the municipality of the Horsham Rural City (Figure 1 and Figure 2).

Pursuant to Planning Permit 15-105 issued by Horsham Rural City Council (HRCC), and the subsidiary Pit 23 Incoming Waste Monitoring Plan (IWMP), the Pit 23 facility is approved for the disposal of mineral separation by-products and used dust filter bags from the Iluka Hamilton Mineral Separation (MSP) which contain or are contaminated with Naturally Occurring Radioactive Material (NORM), and concrete and steel which contains or is contaminated with NORM associated with plant and infrastructure from nominated Iluka sites within Victoria.

2.1 Planning Permit 15-105

Under the Horsham Planning Scheme the subject land is in the Farming Zone and under the provisions of that zone a permit is required for use and development for Industry (Refuse Disposal). On 25th February 2017 Planning Permit 15-105, (the Permit) was issued by the Horsham Rural City Council as the Responsible Authority to allow:

> *Use and development of the land for the disposal of waste by-products associated with or sourced through mineral sands processing undertaken at the Hamilton Mineral Separation Plant (MSP), including waste by-products and contaminated materials resulting from the processing and transport operations as follows:*
>
> - *By-products from the processing of heavy mineral concentrate at the Hamilton MSP;*
> - *used dust filter bags from the Hamilton MSP; and*
> - *Other chemically inert material contaminated with naturally occurring radioactive material.*
>
> *in accordance with the endorsed plans.*

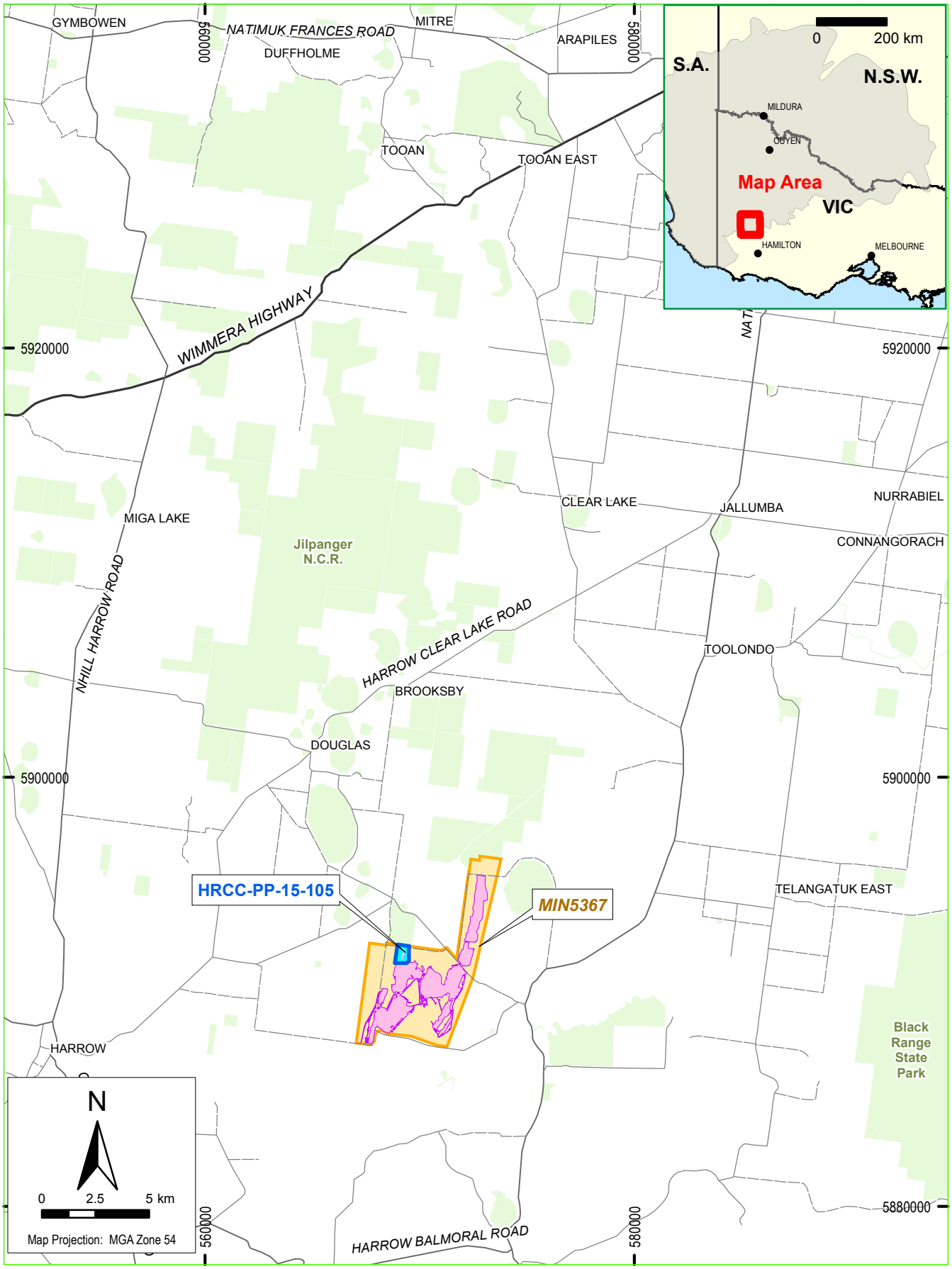
2.2 Commencement of the Permit

Condition 1 of the Permit states:

> *This permit does not come into operation until:*
>
> a. *Iluka has applied to the Department of Economic Development, Jobs, Transport and Resources to vary the 2003 Work Plan to identify a new endues utilisation of Pit 23 and to vary the rehabilitation plan; and*
> b. *Iluka has applied to the Minister to surrender part of MIN 5367[1] (Pit 23); and*
> c. *The Department of Economic Development, Jobs, Transport and Resources has approved the Work Plan Variation; and*
> d. *The Minister has registered the partial surrender of MIN 5367.*
>
> *The permit comes into operation on the same day the Work Plan Variation is approved, and the partial surrender of MIN 5367 is registered.*

The Variation to the 2003 Douglas Mine Work Plan was approved on the 13th April 2017, and the partial surrender of MIN 5367 was registered on 11th May 2017, this being the date of commencement of the Permit.

[1] Iluka Resources Douglas Mine – Mining Licence No. 5367 ('MIN 5367')



Legend

- Douglas mine
- Pit 23
- HRCC-PP-15-105
- MIN5367 tenement

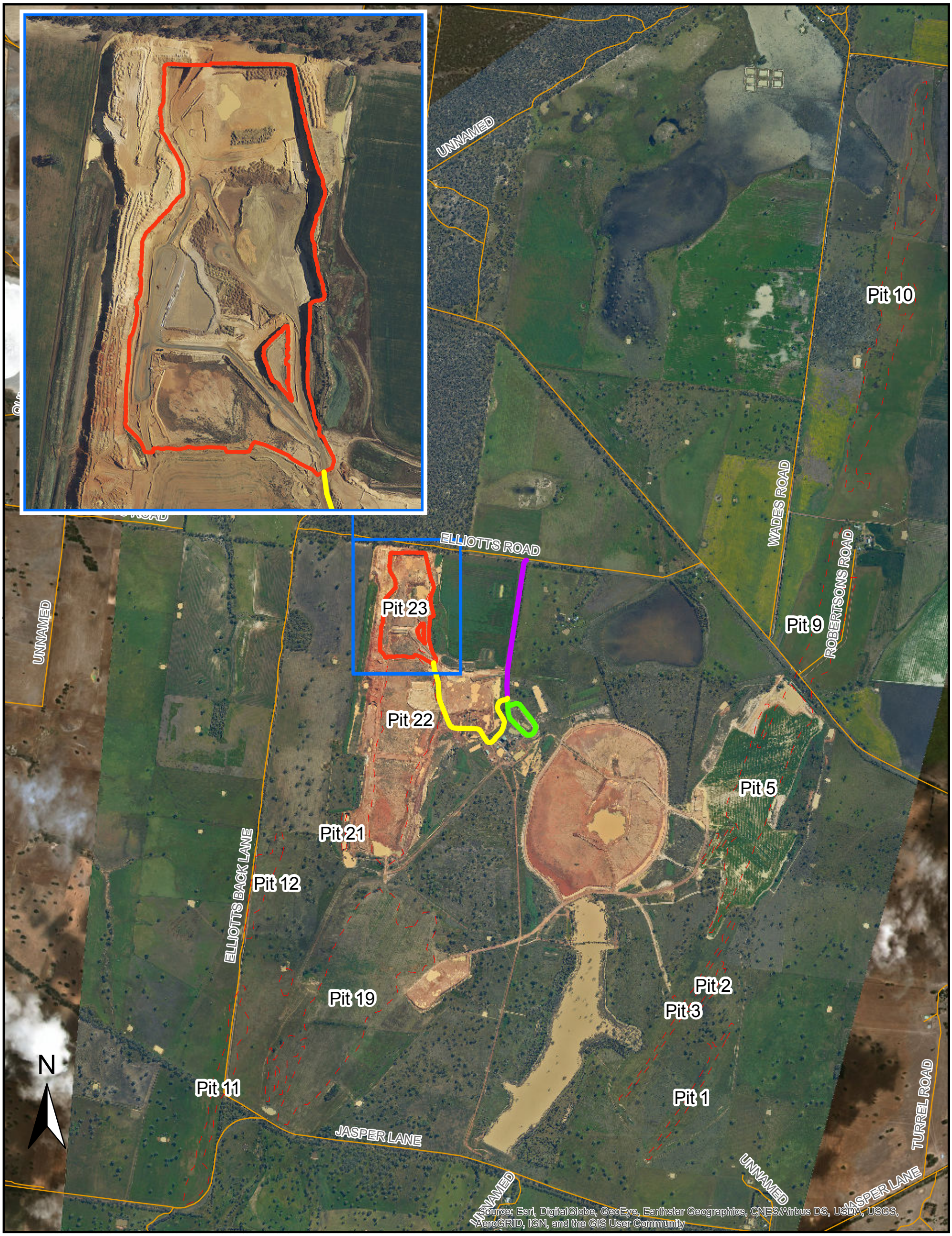
DOUGLAS

LOCATION PLAN

ILUKA

ORIG: N.Travers DRAWN: D.G.S. SCALE: 1:250,000 (A4) DATE: May 2018 DWG No: 247670 ver.00

FIGURE: 1



Legend

- Pit 23 haul road
- Mine Access Road
- Truck wash circuit
- Pit 23 crest
- Pit Crests
- Roads

0 250 500 1,000 1,500 2,000 Meters

LOCATION OF PIT 23

ILUKA

L:\Maps\2018\Unregistered\Douglas\mxd\Pit 23 Annual Report 2017 DRAWN: N. Travers DATE:26/06/2018

FIGURE: 2

2.3 Endorsed Plans

Conditions 2, 3, 9, 14, 16 and 34 of the Permit relate to various management plans that once approved by the Responsible Authority will be endorsed to form part of the Permit, which includes:

- Incoming Waste Monitoring Plan (IWMP);
- Environmental Management Plan (EMP), incorporating;
    - Groundwater Monitoring and Management Plan (GWMMP);
    - Surface Water Monitoring and Management Plan (SWMMP);
    - Air Quality/Dust Control Plan (AQMP); and
- Rehabilitation and Vegetation Management Plan (R&VMP)

The plans were endorsed by Horsham Rural City Council on 17th July 2017.

2.4 Permit condition requirement for an IWMP

To ensure compliance with the permitted use (Section 2.1) the Permit includes the following condition concerning the requirement for and content of an IWMP:

Incoming Waste Monitoring Plan

14. *Within 90 days of the commencement of this permit operation, an Incoming Waste Management Plan (IWMP) must be prepared to the satisfaction of the Responsible Authority in consultation with the Department of Health and Human Services for the approval by the responsible authority. Three copies of the plan must be provided to the responsible authority. When approved by the responsible authority the IWMP will be endorsed and it will then form part of this permit. The IWMP must provide for*

    a) A monitoring and reporting system for ensuring that materials disposed of to Pit 23 are limited to those approved under the conditions of this permit;

    b) Recording of the origin, per load weight and radioactive properties of each incoming load;

    c) Monitoring to ensure all vehicles transporting waste have fully secured and contained loads and that all waste loads have been transported in compliance with licence requirements under the Radiation Act 2005;

    d) Records of any transport incidents or spill and remedial actions taken in the event of such incidents; and

    e) Annual audits of records to verify compliance with the requirements of the IWMP

2.5 IWMP reporting requirements

Section 6 of the IWMP states the following reporting requirements:

On an annual basis a report will be provided showing the following:

- *For each load:*
    - *source site;*
    - *load weight; and*
    - *material description; and*
- *For the report period:*
    - *radioactivity of by-products on a monthly basis; and*
    - *total quantities of by-products disposed of to Pit 23.*

The annual report will be provided to a suitably qualified auditor who will complete an audit of the data provided and compliance with this IWMP. Copies of the annual report and the audit report will be submitted to the Responsible Authority

These reporting requirements are addressed in the following sections.

3 Monitoring Results

3.1 Per load monitoring data

In accordance with Section 6 of the endorsed IWMP, data associated with each load of incoming waste is shown in Table 1. No loads of material were received into Pit 23 in the H1 2020 reporting period.

Table 1: Individual load data for incoming wastes to Pit 23, H1 2020

Date	Week No.	Source site	Location Code	Material Code	Load weight (t)

3.2 Reporting period monitoring data

In accordance with Section 6 of the endorsed IWMP, the monthly average radioactivity of by-products shall be reported. However, no by-products were disposed into Pit 23 during the reporting period. No samples required for radionuclide analysis as shown in Table 2.

Table 2: Quantities and radioactivity results for disposed MSP by-products, H1 2020

Product	Product (tonnes)	Th (ppm)	U (ppm)
Dry circuit rejects	0	n/a	n/a
Wet circuit rejects	0	n/a	n/a
Baghouse dust filter bags	0	n/a	n/a
Total	**0**		

3.3 Incidents and remedial actions

3.3.1 Incidents or spills

No transport incidents or spillages occurred during the reporting period

3.3.2 Remedial actions taken

None required

3.4 Other matters

None identified.

APPENDIX D

Iluka EMP and RVMP Performance Report H1 2020

Iluka Resources Limited
Mineral Sands By-Product Disposal

Planning Permit 15-105

Crown Allotments 91, 94, 95, 96
Parish of Telangatuk

Environmental Management Plan and Rehabilitation Performance Report – H1 2020

Iluka Ref: UDOCS 0090-426461582-1177

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1 Executive Summary

Iluka Resources Limited (Iluka) operates the Pit 23 by-products disposal facility located at the Douglas Mine in the Kanagulk area and within the municipality of the Horsham Rural City.

Pursuant to Planning Permit 15-105 issued by Horsham Rural City Council (HRCC), and the subsidiary Pit 23 Incoming Waste Monitoring Plan (IWMP), the Pit 23 facility is approved for the disposal of mineral separation by-products and used dust filter bags from the Iluka Hamilton Mineral Separation (MSP) which contain or are contaminated with Naturally Occurring Radioactive Material (NORM), and concrete and steel which contains or is contaminated with NORM associated with plant and infrastructure from nominated Iluka sites within Victoria.

Complementing the IWMP are the endorsed Pit 23 Environmental Management Plan (EMP) which addresses the identification, management and monitoring of environmental risks associated with the approved development and use; and the endorsed Rehabilitation and Vegetation Management Plan (R&VMP) which addresses the future rehabilitation of the Pit 23 facility including infrastructure decommissioning, landform reinstatement and end land use.

This report is submitted in accordance with Section 12.2 of the endorsed Iluka Pit 23 EMP and outlines the results of monitoring and management actions undertaken during the period 1st January 2020 to 30th June 2020.

Key commentary on environmental monitoring outcomes and performance against compliance objectives in the Pit EMP for the H1 2020 reporting period:

- There were no exceedances of applicable limits for radionuclides or any other analytes in groundwater in bores down-gradient of Pit 23 attributable to disposal activities;
- There were no surface water discharges from the Pit 23 disturbance area;
- There were no exceedances of applicable limits for radionuclides or any other analytes in groundwater-fed surface water sites down-gradient of Pit 23 attributable to disposal activities;
- No noise complaints were received;
- There were no exceedances of the PM_{10} limit attributable to Pit 23 operations;
- There were no exceedances of the air concentration limits for radon or thoron;
- Measured concentrations of gross alpha radiation in airborne dust were within the range of historical values; and
- Updated groundwater level contours and flow-paths show no material change from the hydrogeological model contours developed in 2015 by CDM Smith.

Detailed assessment of compliance, key results and management actions are provided in Section 4 and 5 of the enclosed report.

2 Introduction

Iluka Resources Limited (Iluka) operates the Pit 23 by-products disposal facility located at the Douglas Mine in the Kanagulk area and within the municipality of the Horsham Rural City (Figure 1 and Figure 2).

Pursuant to Planning Permit 15-105 issued by Horsham Rural City Council (HRCC), and the subsidiary Pit 23 Incoming Waste Monitoring Plan (IWMP), the Pit 23 facility is approved for the disposal of mineral separation by-products and used dust filter bags from the Iluka Hamilton Mineral Separation (MSP) which contain or are contaminated with Naturally Occurring Radioactive Material (NORM), and concrete and steel which contains or is contaminated with NORM associated with plant and infrastructure from nominated Iluka sites within Victoria.

2.1 Planning Permit 15-105

Under the Horsham Planning Scheme the subject land is in the Farming Zone and under the provisions of that zone a permit is required for use and development for Industry (Refuse Disposal). On 25th February 2017 Planning Permit 15-105, (the Permit) was issued by the Horsham Rural City Council as the Responsible Authority to allow:

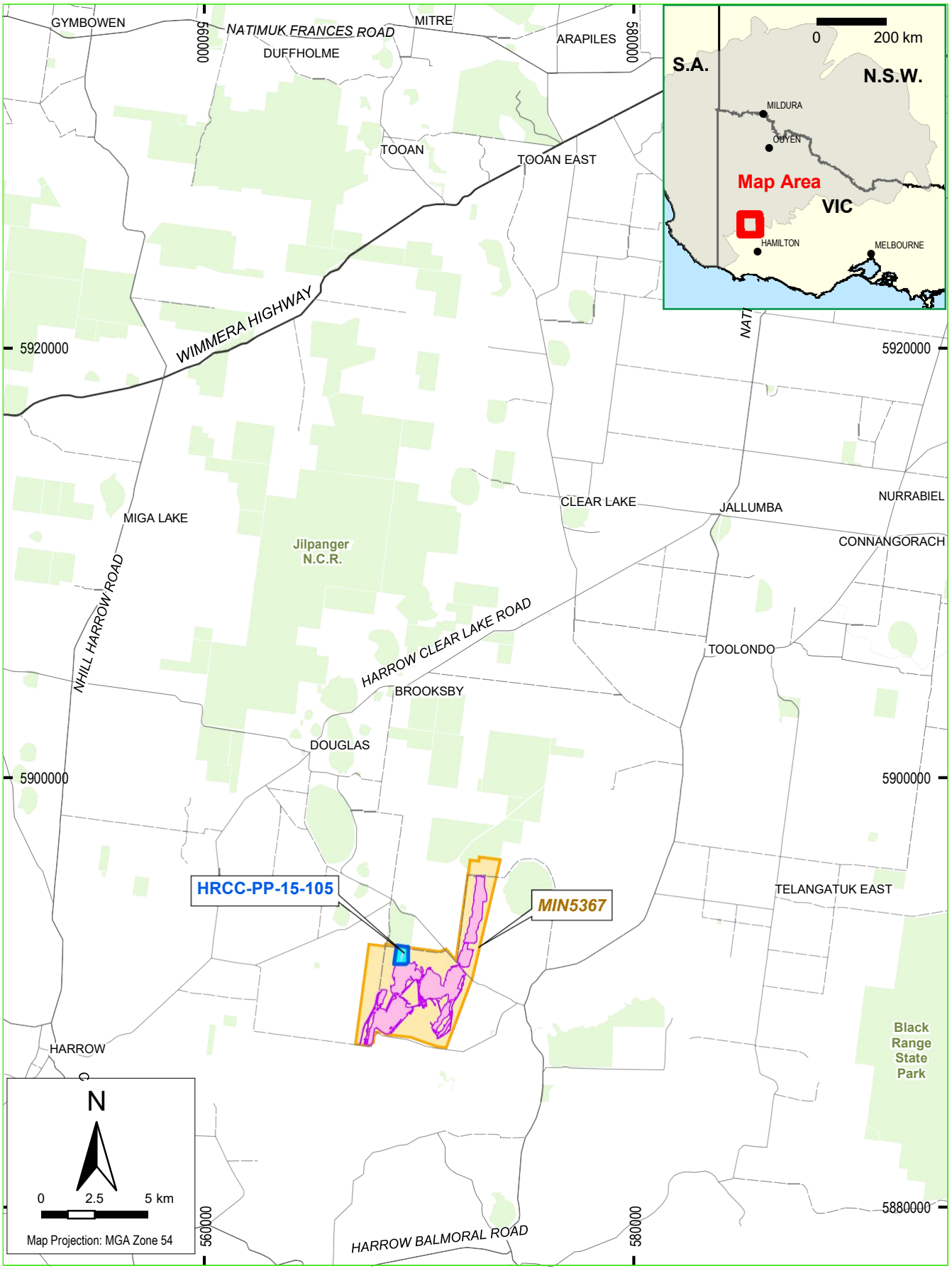
> *Use and development of the land for the disposal of waste by-products associated with or sourced through mineral sands processing undertaken at the Hamilton Mineral Separation Plant (MSP), including waste by-products and contaminated materials resulting from the processing and transport operations as follows:*
>
> - *By-products from the processing of heavy mineral concentrate at the Hamilton MSP;*
> - *used dust filter bags from the Hamilton MSP; and*
> - *Other chemically inert material contaminated with naturally occurring radioactive material.*
>
> *in accordance with the endorsed plans.*

2.2 Commencement of the Permit

Condition 1 of the Permit states:

> *This permit does not come into operation until:*
>
> *a. Iluka has applied to the Department of Economic Development, Jobs, Transport and Resources to vary the 2003 Work Plan to identify a new endues utilisation of Pit 23 and to vary the rehabilitation plan; and*
>
> *b. Iluka has applied to the Minister to surrender part of MIN 5367 (Pit 23); and*
>
> *c. The Department of Economic Development, Jobs, Transport and Resources has approved the Work Plan Variation; and*
>
> *d. The Minister has registered the partial surrender of MIN 5367.*
>
> *The permit comes into operation on the same day the Work Plan Variation is approved, and the partial surrender of MIN 5367 is registered.*

The Variation to the 2003 Douglas Mine Work Plan was approved on the 13th April 2017, and the partial surrender of MIN5367 was registered on 11th May 2017, this being the date of commencement of the Permit.



Legend

- Douglas mine
- Pit 23
- HRCC-PP-15-105
- MIN5367 tenement

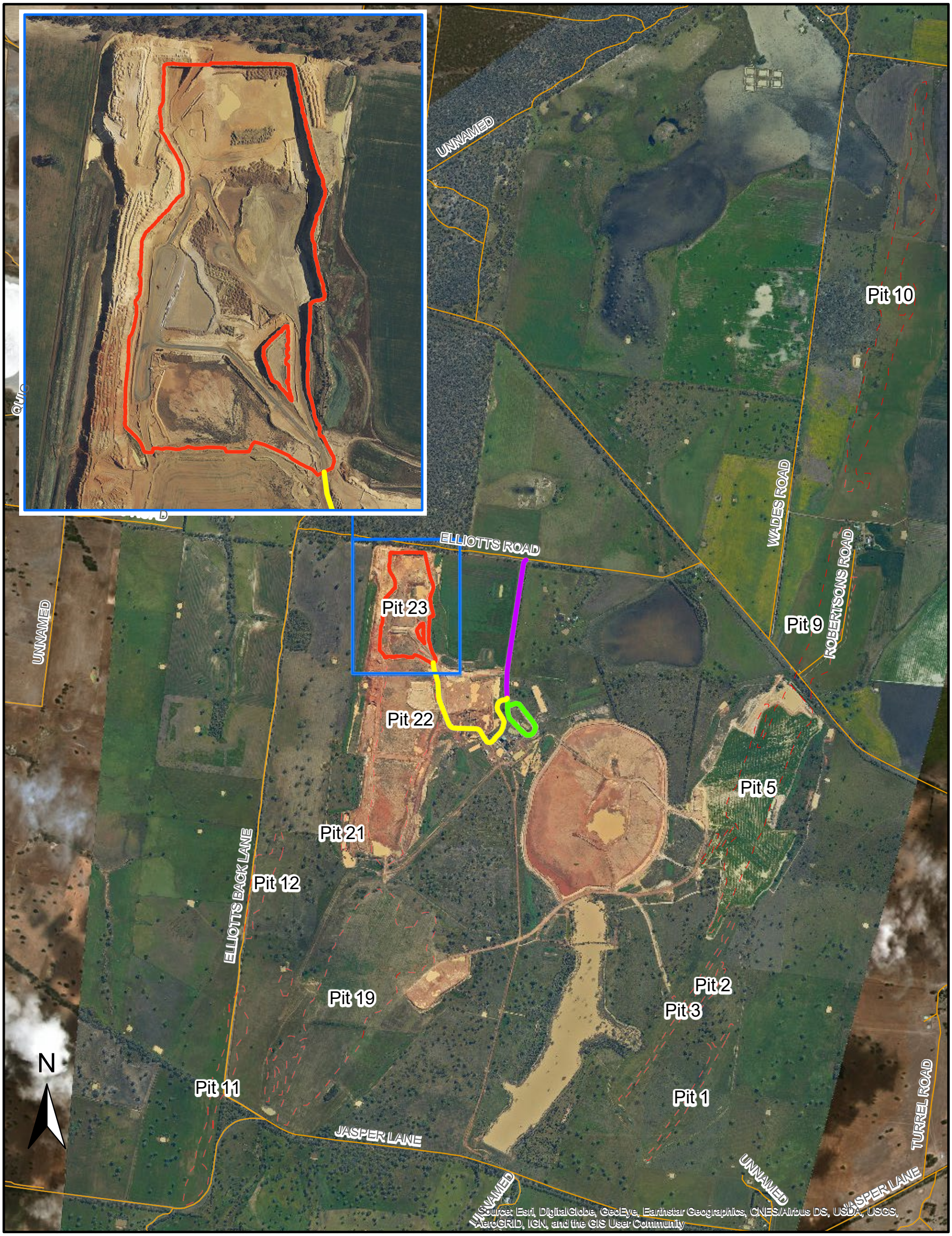
DOUGLAS

LOCATION PLAN

ILUKA

ORIG: N.Travers DRAWN: D.G.S. SCALE: 1:250,000 (A4) DATE: May 2018 DWG No: 247670 ver.00

FIGURE: 1



Legend

- Pit 23 haul road
- Mine Access Road
- Truck wash circuit
- Pit 23 crest
- Pit Crests
- Roads

0 250 500 1,000 1,500 2,000 Meters

LOCATION OF PIT 23

ILUKA

L:\Maps\2018\Unregistered\Douglas\mxd\Pit 23 Annual Report 2017 DRAWN: N. Travers DATE:26/06/2018

FIGURE: 2

2.3 Endorsed Plans

Conditions 2, 3, 9, 14, 16 and 34 of the Permit relate to various management plans that once approved by the Responsible Authority will be endorsed to form part of the Permit, which includes:

- Incoming Waste Monitoring Plan (IWMP);
- Environmental Management Plan (EMP), incorporating;
    - Groundwater Monitoring and Management Plan (GWMMP);
    - Surface Water Monitoring and Management Plan (SWMMP);
    - Air Quality/Dust Control Plan (AQMP); and
- Rehabilitation and Vegetation Management Plan (R&VMP)

The plans were endorsed by Horsham Rural City Council on 17th July 2017.

2.4 Performance reporting

Section 12.2 of the endorsed EMP (Rev 4, July 2017) outlines the routine reporting requirements for the mineral sands by-product disposal operations which are:

A review of the performance will be completed and an EMP and Rehabilitation Performance report prepared annually, or less frequently as may be agreed with the Responsible Authority.

Each EMP and Rehabilitation Performance Report will include, at least:

- *for the period from the previous EMP and Rehabilitation Performance Report:*
    - *the total tonnage of materials disposed of;*
    - *the average and maximum number of deliveries of materials disposed of per day; and*
    - *the results of all measurements of:*
        - *noise levels made in response to a complaint regarding noise;*
        - *PM10 concentrations in air at sensitive receptors;*
        - *environmental radiation monitoring results in accordance with the approved Radiation Management Plan, which will generally include:*
            - *radon concentration in air;*
            - *gross alpha activity concentration of airborne dust; and*
            - *radionuclide concentrations in groundwater and surface water;*
        - *discussion of any implications of the results of groundwater level monitoring on groundwater flow paths from Pit 23; and*
        - *descriptions of any model review and recalibration completed and the results of subsequent model re-runs;*
- *the maximum elevation of the upper surface of materials disposed of at the end of the reporting period;*
- *a detailed discussion of all non-compliant events including progress toward resolution;*
- *a summary of comments and complaints received and resulting actions;*
- *plans for the next year; and*
- *discussion on other matters considered relevant by the Responsible Authority or Iluka.*

Deficiencies identified in an EMP and Rehabilitation Performance Report that can be addressed without amendment of this plan will be addressed as soon as practicable.

Per Section 13.2 of the EMP, the EMP and Rehabilitation Performance Reports will be subject to review by an independent auditor prior to submission to the Responsible Authority.

2.5 Rehabilitation and Vegetation Management Plan

Due to continued operations within Pit 23 no actions relevant to rehabilitation and vegetation management were undertaken in the H1 2020 reporting period.

3 Delivery and Disposal of Materials into Pit 23

No wastes were disposed into Pit 23 during the H1 2020 reporting period.

4 Monitoring Results

4.1 Groundwater

4.1.1 Bore network status

The Pit 23 bore network includes several new monitoring bores installed in 2018 per the recommendations in the independent desktop review of proposed by-product disposal (EES, 2016). The augmented bore network therefore satisfies Condition 28(c) of the Permit. The status of Pit 23 monitoring bore network is given in Table 1.

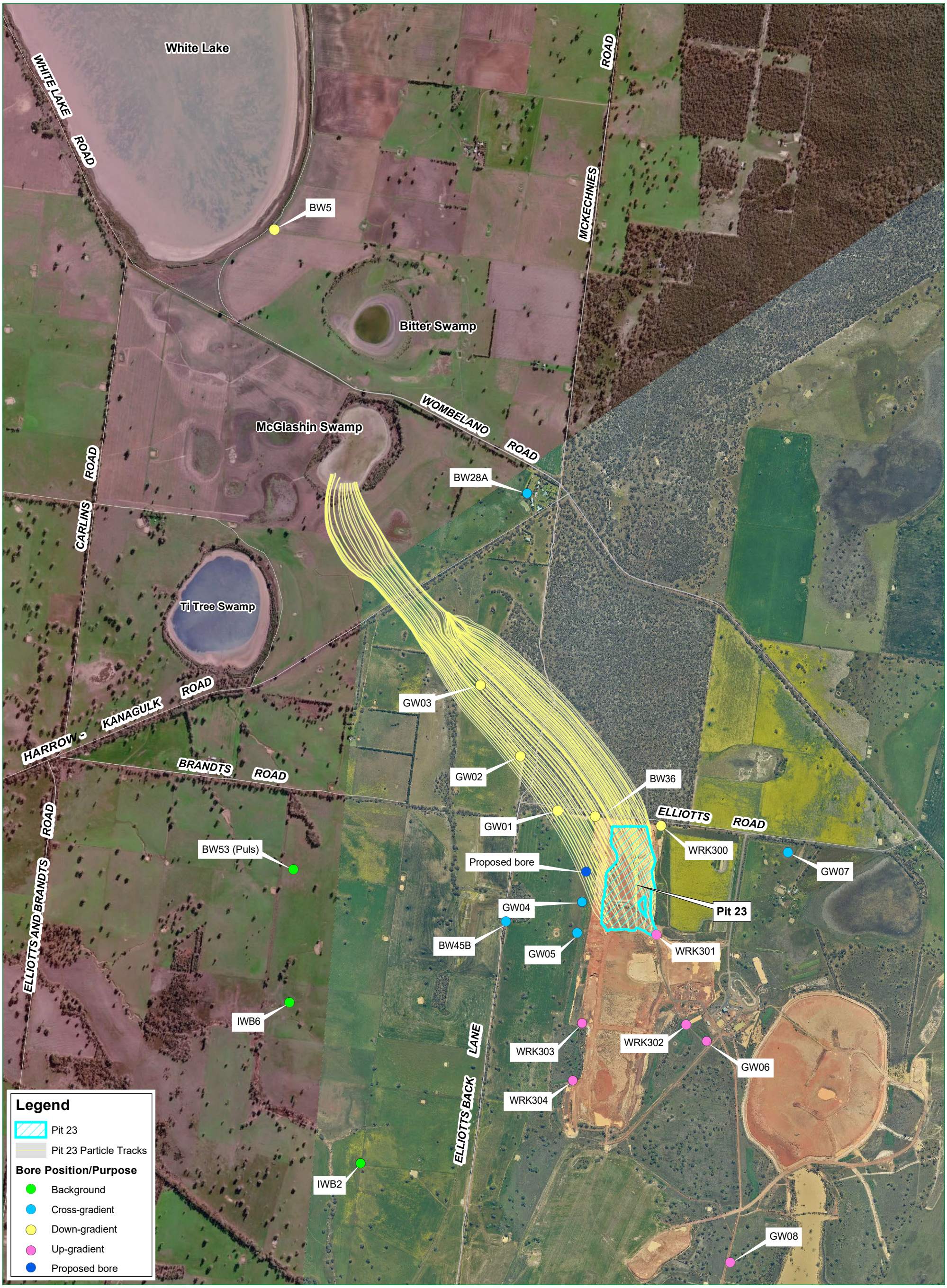
The blocked monitoring bore (BW36) has been decommissioned and replaced with a new monitoring bore (BW36A) which was installed in October 2019. Consistent with Section 7.6.3 the replacement bore ("BW36A") was installed by a licensed driller pursuant to a '*Licence to Construct Works*' (Works Licence WLE074849) issued by GWM Water. As per Condition 28(d) of the Permit, bore installation was supervised by qualified hydrogeologist.

Bore locations are provided in Figure 3.

Table 1: Pit 23 bore status (as at 30/06/2020)

Well ID	Comment	Status / Condition
BORES UP-GRADIENT OF PIT 23		
WRK301		OK
WRK302		OK
WRK303		OK
WRK304		OK
GW08	Installed 18/10/18	OK
GW06	Installed 23/5/18	OK
GW05	Installed 17/10/18	OK
BORES DOWN-GRADIENT OF PIT 23 (IN PREDICTED FLOW PATH)		
BW36	Decommissioned in October 2019	Blocked
BW36A	Installed 15/10/19	To replace BW36
WRK300		OK
GW01	Installed 23/5/18	OK
GW02	Installed 17/10/18	OK
GW03	Installed 17/10/18	OK
BW5	In predicted flow path	OK
BORES CROSS-GRADIENT TO PIT 23 FLOW PATH		
GW04*	Installed 18/10/18	OK

Well ID	Comment	Status / Condition
GW07	Installed 23/5/18	OK
BW28A *		OK
BW45B	Installed 18/10/18 – replaced BW45	OK
BORES REPRESENTATIVE OF BACKGROUND		
IWB2	Representative of background	OK
IWB6	Representative of background	OK
BW53 (“Puls”)	Representative of background	OK
* BW28A and GW04 are incorrectly referenced in the current endorsed EMP (Rev 4, July 2017) as being down-gradient of Pit 23. Groundwater modelling per CDM Smith (2014) and EMM (2019) indicate that BW28A and GW04 are cross-gradient to the predicted flow path from Pit 23.		



N

0 500 1,000 m

Site photo: 5 Oct. 2018

DOUGLAS MINE

PIT 23 MONITORING BORE NETWORK & GROUNDWATER FLOW PATH

ILUKA

ORIG: S.Alexander DRAWN: D.G.S. SCALE: 1:25,000 (A3) DATE: June 2020 DWG No: 257184 ver.01

FIGURE: 3

4.1.2 Standing water levels

In accordance with Section 7.9.1 of the current endorsed EMP (Rev 4, July 2017) groundwater levels are measured on a monthly basis at bores WRK300 – WRK304 inclusive, GW01 to GW08 inclusive and BW36A and BW45B. All other bores (BW5, BW28A, BW53, IWB2 and IWB6) are measured on a biannual basis.

Groundwater level hydrographs for these bores expressed in groundwater elevation (metres above Australian Height Datum, mAHD) are given in Table 2 and Figure 4 – Figure 6. Data includes that obtained during scheduled events and ad-hoc measurements.

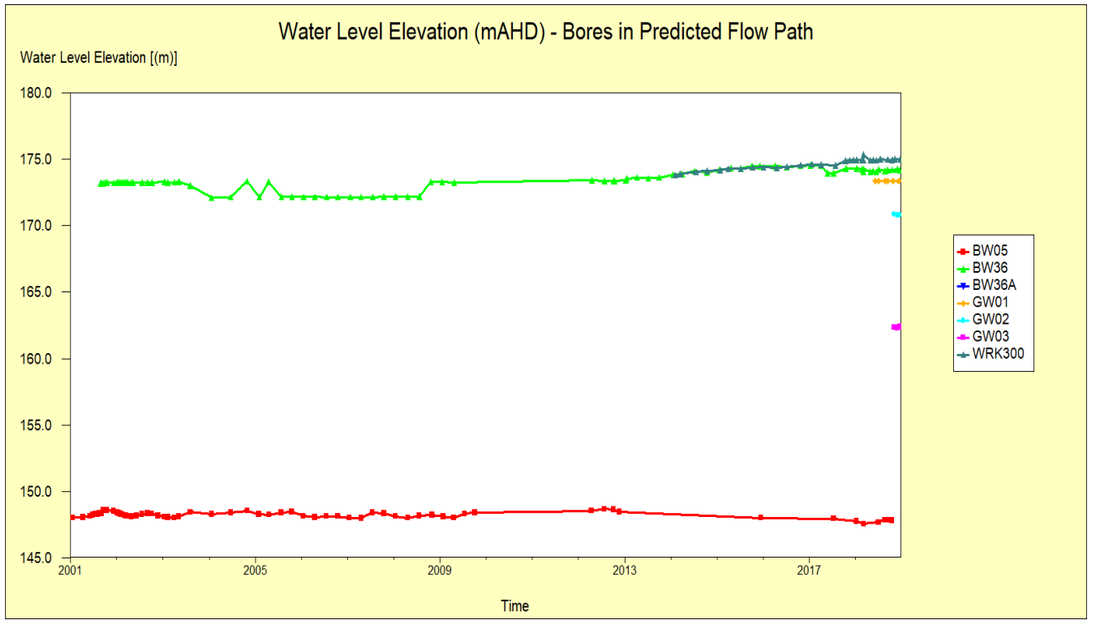
All bores along the predicted flow path (Figure 4) exhibit stable standing water levels in the preceding 24-month period and in comparison to long-term trends; bores up-gradient of Pit 23 (Figure 5) exhibit relatively stable water levels with minor fluctuation.

Table 2: Monitoring bores - standing water Levels (mAHD)

Bore ID	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
BORES UP-GRADIENT OF PIT 23						
GW05	179	178.94	178.98	178.84	178.9	178.96
GW06	176.22	176.13	176.22	176.24	176.20	176.26
GW08	177.66	177.5	177.63	177.37	177.49	177.6
WRK301	178.18	178.16	178.2	178.29	178.16	178.15
WRK302	176.59	176.67	176.62	176.68	176.7	176.67
WRK303	179.52	179.8	179.83	179.85	179.83	179.79
WRK304	180.36	180.29	180.35	180.25	180.5	180.36
BORES DOWN-GRADIENT OF PIT 23 (IN PREDICTED FLOW PLATH)						
BW05	147.30	147.46	*	*	*	*
WRK300	175.04	175	175.05	175.01	175.11	175.06
BW36A	174.53	174.51	174.54	174.23	174.34	174.41
GW01	173.44	173.41	173.43	173.60	173.53	173.50
GW02	170.81	170.79	170.76	170.65	170.81	170.71
GW03	162.07	162.14	162.12	161.89	161.99	161.97
BORES CROSS GRADIENT TO PIT 23 FLOW PATH						
BW28A	152.68	152.46	*	*	*	*
BW45B	177.38	177.31	177.35	177.37	177.36	177.34
GW04	178.39	178.38	178.43	178.12	178.24	178.2
GW07	172.43	172.47	172.46	172.44	172.47	172.43
BORES REPRESENTATIVE OF BACKGROUND						
IWB2	179.70	179.67	*	*	*	*
IWB6	176.74	176.82	*	*	*	*
BW53 ("Puls")	175.83	175.84	*	*	*	*

Notes

- bores are listed according to their position relative to the Pit 23 groundwater flow path
- bores down-gradient (on predicted flow path) are listed in order of their position along the path of flow
- dates marked with an asterisk (*) indicates no scheduled sampling required



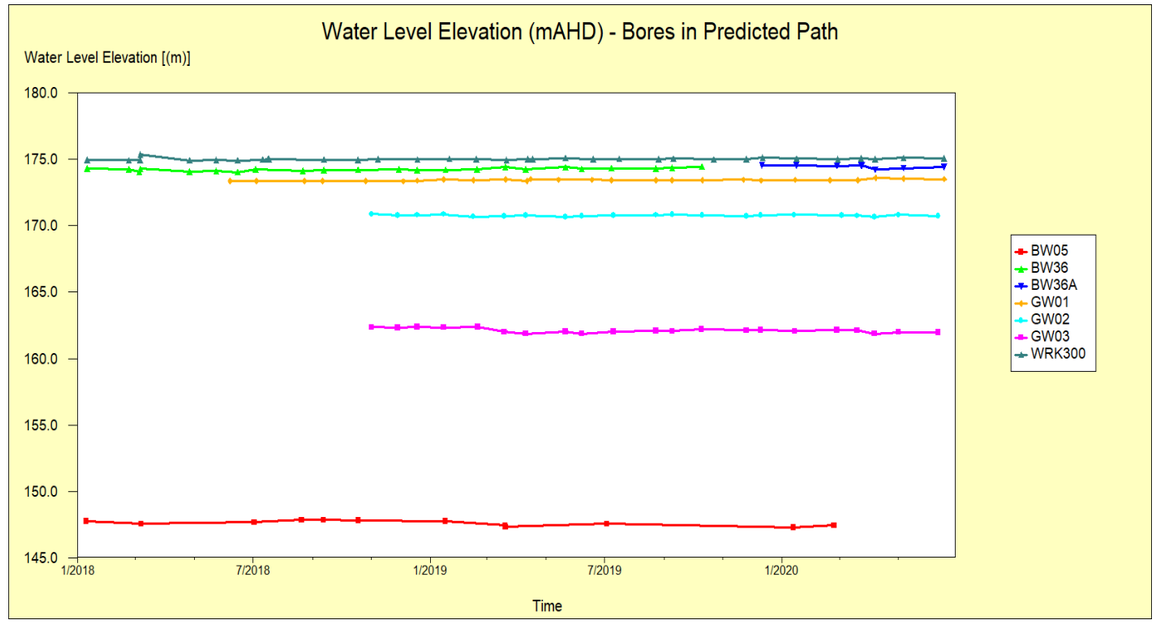
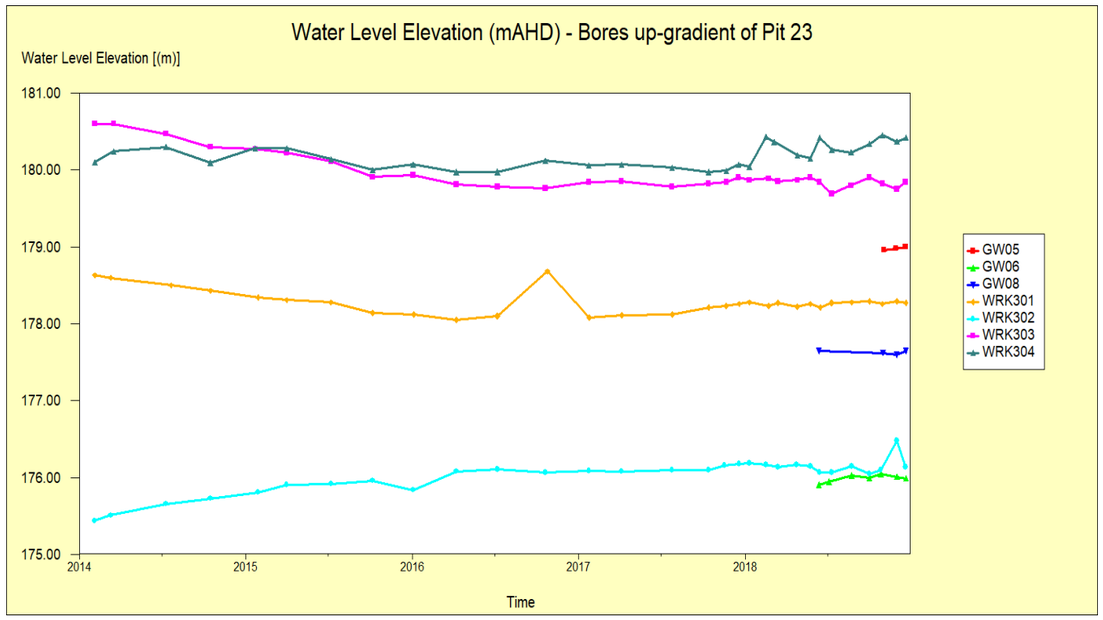


Figure 4: Groundwater elevation (mAHD) – bores in predicted flow path



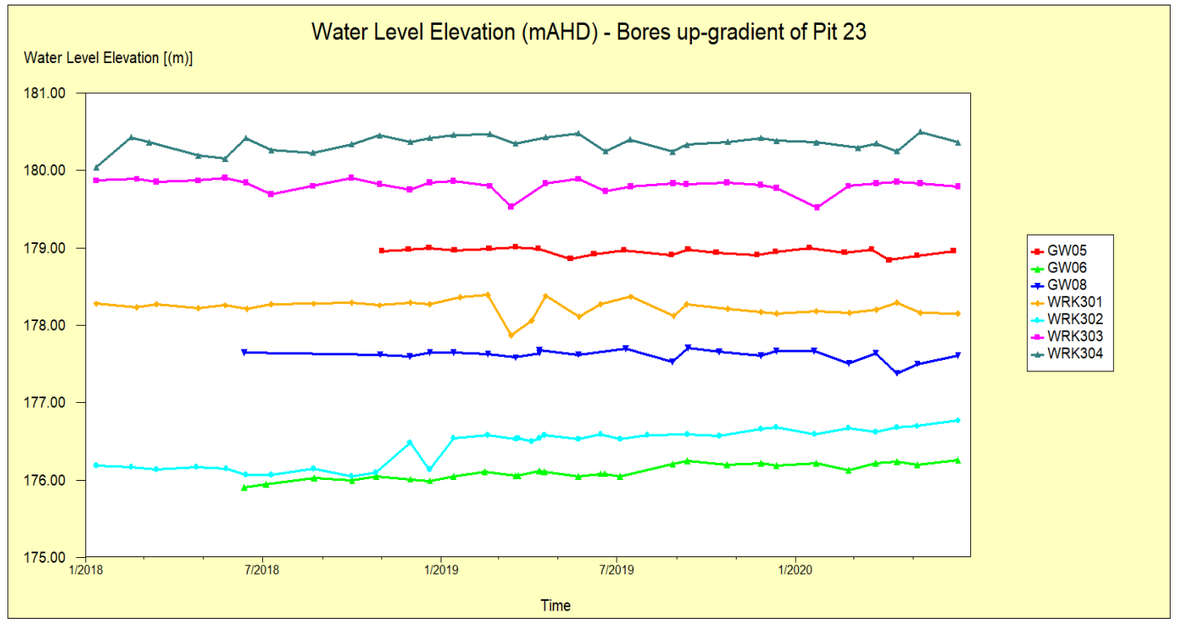
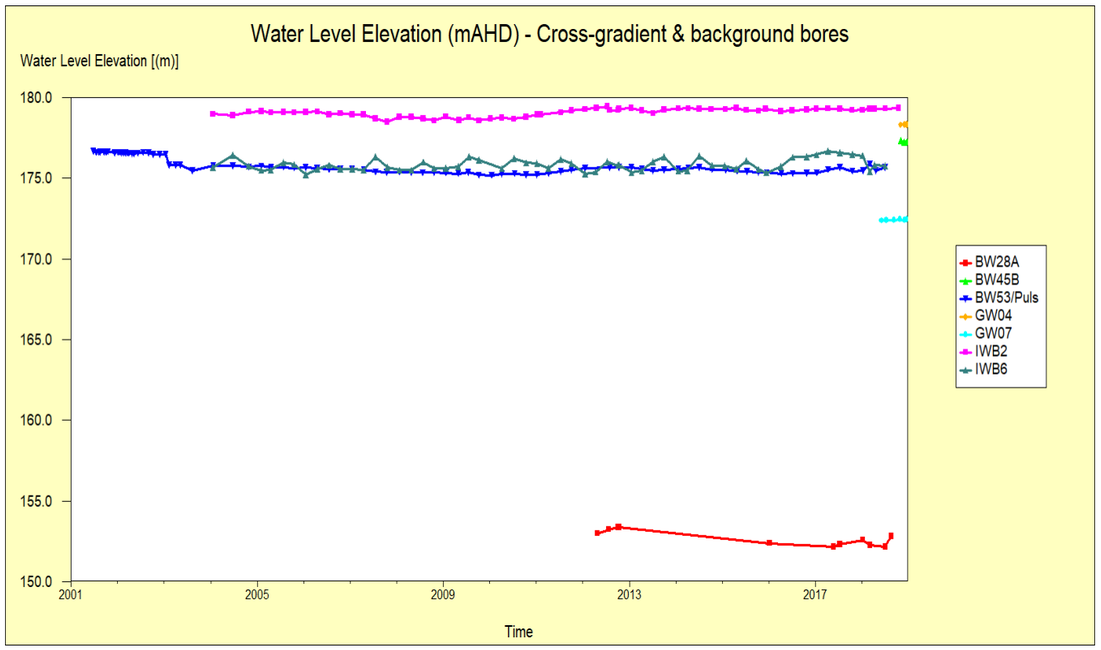


Figure 5: Groundwater elevation (mAHD) – bores up-gradient of Pit 23



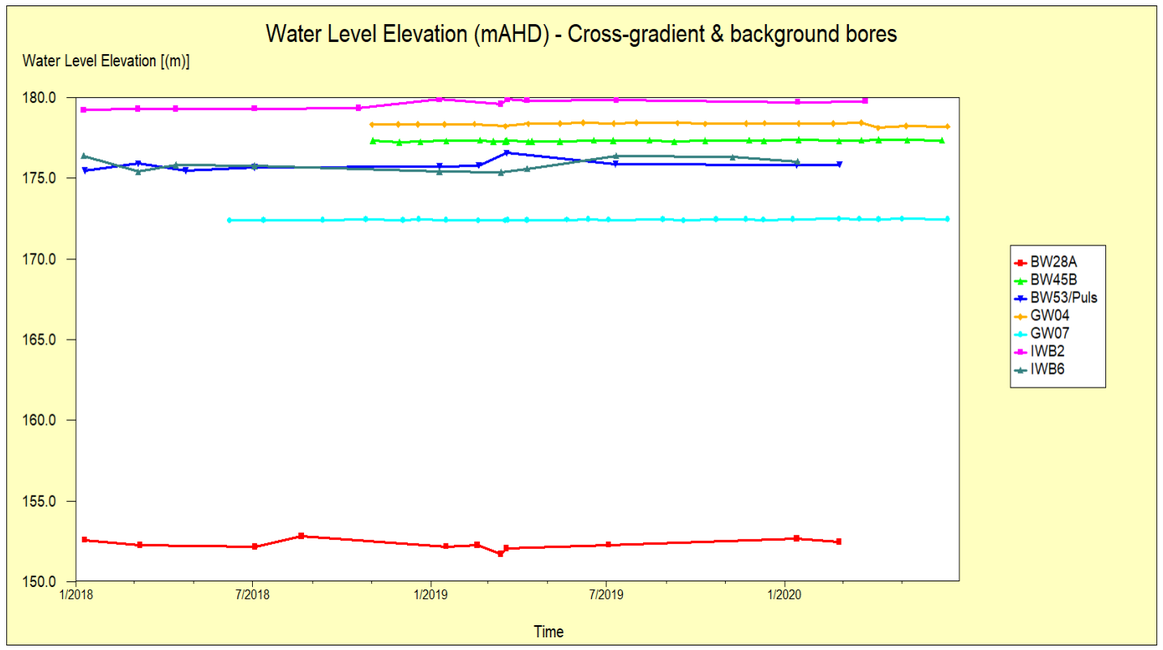


Figure 6: Groundwater elevation (mAHD) – cross-gradient and background bores

4.1.3 Groundwater quality

4.1.3.1 Ionic balance ratios

Per Section 7.9.2 of the current endorsed EMP (Revision 4, July 2017) chloride:sulfate (CL:SO4) and sodium:calcium (Na:Ca) ratios in groundwater are assessed from results obtained during scheduled and/or follow-up groundwater sampling events. Per the EMP, a consecutive reduction in either ratio of >10% applies as a potential indicator of seepage from Pit 23 having arrived in a bore and is a trigger for further investigation. Per the EMP, further investigation would include:

- comparing the timing of the consecutive >10% reduction in ionic ratios with the hydrogeological model predictions;
- comparing the timing of the ionic balance trigger with other analytes (e.g. radionuclides, heavy metals) to identify any corresponding exceedances in those analytes in the same rounds of sampling;
- where such a correlation exists completing a detailed investigation of cause and impact, including possible reviews of hydrogeological or solute transport models.

Calculated Cl:SO4 and Na:Ca for the reporting period are given in Table 3. As above, this includes ratios as determined from the results of scheduled and follow-up sampling.

Reductions of >10% in one or both ratios in consecutive and/or follow-up sampling events occurred on one (1) occasion in the reporting period in a bore (GW01) down-gradient to Pit 23:

As detailed further in Section 4.1.3.3, the ionic balance trigger corresponded with an elevated Selenium result, however, this result is below the precautionary limit based on background values which have naturally elevated concentrations at GW01 and are above the standard SEPP WoV objectives. These observations are not considered to be associated with Pit 23.

Table 3: Groundwater monitoring locations – ionic ratio balance results

Bore ID	Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (Ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (Ratio)	% Red.	Repeated ratio exceedance?
BORES UP-GRADIENT OF PIT 23										
GW05	28/11/2018	3100	560	5.5	*I.D.*	1800	170	10.6	*I.D.*	
	15/01/2019	3800	790	4.8	13%	2200	200	11.0	-4%	
	19/02/2019	3700	740	5.0	10%	2000	180	11.1	-5%	
	8/07/2019	3100	660	4.7	2%	1900	140	13.6	-23%	
	15/01/2020	2600	640	4.0	14%	1700	81	20.9	-55%	
	20/02/2020	2800	620	4.5	4%	1900	87	21.8	-61%	
GW06	12/06/2018	6600	1500	4.4	*I.D.*	3400	660	5.2	*I.D.*	
	14/01/2019	6700	1700	3.9	10%	3400	630	5.4	-5%	
	21/03/2019	6800	1600	4.3	3%	3400	620	5.5	-6%	
	17/04/2019	7000	1500	4.7	-18%	3500	640	5.5	-1%	
	22/05/2019	6800	1400	4.9	-23%	3400	670	5.1	6%	
	18/06/2019	6800	1500	4.5	-15%	3400	580	5.9	-9%	
	4/07/2019	6800	1500	4.5	-15%	3500	610	5.7	-6%	
	22/01/2020	6000	1600	3.8	17%	3400	610	5.6	3%	
	24/02/2020	6700	1500	4.5	1%	3400	600	5.7	1%	
GW08	29/11/2018	5300	1100	4.8	*I.D.*	2800	390	7.2	*I.D.*	
	14/01/2019	6600	1300	5.1	-5%	3200	540	5.9	17%	
	18/02/2019	6700	1400	4.8	1%	3300	540	6.1	15%	**Yes (Na:Ca)**
	10/07/2019	6700	1200	5.6	-10%	3600	550	6.5	-10%	
	20/01/2020	6500	1300	5	10%	3400	520	6.5	0%	
	25/02/2020	6700	1300	5.2	8%	3600	540	6.7	-2%	
	5/05/2020	6800	1300	5.2	6%	3800	400	9.5	-45%	
	26/07/2017	3100	640	4.8	*I.D.*	1600	240	6.7	*I.D.*	

Bore ID	Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (Ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (Ratio)	% Red.	Repeated ratio exceedance?
WRK301	11/01/2018	3100	650	4.8	2%	1700	250	6.8	-2%	
	10/07/2018	3100	480	6.5	-35%	1700	260	6.5	4%	
	21/01/2019	3400	670	5.1	**21%**	1700	290	5.9	10%	
	18/02/2019	3400	690	4.9	**24%**	1700	260	6.5	0%	**Yes (CL:SO4)**
	15/07/2019	3200	570	5.6	-11%	1700	230	7.4	-26%	
	22/01/2020	3100	600	5.2	8%	1700	260	6.5	12%	
	25/02/2020	3200	600	5.3	5%	1800	270	6.7	10%	
WRK302	10/07/2018	6500	1300	5.0	-15%	3500	520	6.7	8%	
	14/01/2019	6500	1500	4.3	13%	3500	490	7.1	-6%	
	18/02/2019	6700	1400	4.8	**4%**	3300	540	6.1	9%	
	21/03/2019	6600	1500	4.4	12%	3500	490	7.1	-6%	
	17/04/2019	6600	1300	5.1	-2%	3400	530	6.4	5%	
	22/05/2019	6700	1300	5.2	-3%	3500	510	6.9	-2%	
	4/07/2019	6400	1400	4.6	-5%	3600	460	7.8	-10%	
	1/08/2019	6500	1400	4.6	-7%	3400	480	7.1	1%	
	20/01/2020	6200	1500	4.1	10%	3500	460	7.6	3%	
WRK303	25/07/2017	2100	570	3.7	*I.D.*	1200	93	12.9	*I.D.*	
	11/01/2018	2100	550	3.8	-4%	1300	97	13.4	-4%	
	10/07/2018	2400	570	4.2	-10%	1400	110	12.7	5%	
	14/01/2019	2500	620	4.0	4%	1500	130	11.5	9%	
	15/07/2019	2700	570	4.7	-17%	1600	120	13.3	-16%	
	23/01/2020	2700	560	4.8	-2%	1800	140	12.9	4%	
WRK304	10/07/2018	2200	640	3.4	0%	1400	93	15.1	-3%	
	14/01/2019	2200	680	3.2	6%	1400	87	16.1	-7%	
	15/07/2019	2400	640	3.8	-16%	1500	94	16.0	1%	
	22/01/2020	2500	700	3.6	5%	1700	100	17.0	-7%	
	5/03/2020	2500	640	3.9	-4%	1600	110	14.5	9%	
BORES DOWN-GRADIENT OF PIT 23										
BW05	18/10/2018	8800	800	11.0	-23%	4900	260	18.8	-11%	
	17/01/2019	8300	960	8.6	17%	4500	290	15.5	35%	
	20/03/2019	8400	890	9.4	10%	4700	260	18.1	**24%**	**Yes (Na:Ca)**
	3/07/2019	8300	860	9.7	-12%	4600	240	19.2	-24%	
	13/01/2020	7800	870	9.0	7%	4700	240	19.6	-2%	
BW36	12/07/2017	2200	420	5.2	*I.D.*	1300	74	17.6	*I.D.*	
	10/01/2018	2000	360	5.6	-6%	1200	82	14.6	**17%**	
	6/03/2018	1900	360	5.3	-1%	1100	61	18.0	**-3%**	
	Bore blocked - replaced with BW36A in Oct 2019									
	11/12/19	1200	160	7.5	*I.D.*	760	76	10.0	*I.D.*	
	16/01/20	1200	90	13.33	-78%	770	69	11.2	-12%	
GW01	7/06/2018	930	110	8.5	*I.D.*	490	82	6.0	*I.D.*	
	15/01/2019	3400	400	8.5	-1%	1800	65	27.7	-363%	
	20/03/2019	3500	420	8.3	2%	2000	68	29.4	-6%	
	15/04/2019	3700	370	10.0	-18%	1900	75	25.3	9%	
	14/05/2019	3400	360	9.4	-11%	2100	64	32.8	-18%	
	18/06/2019	3400	420	8.1	5%	1800	56	32.1	-16%	
	8/07/2019	3400	400	8.5	0%	1900	58	32.8	-18%	
	15/01/2020	3500	470	7.4	12%	1900	92	20.7	37%	
	20/02/2020	3400	450	7.6	**11%**	1900	73	26.0	**21%**	**Yes (Both)**
GW02	28/11/2018	2100	410	5.1	*I.D.*	1300	38	34.2	*I.D.*	
	15/01/2019	2000	330	6.1	-18%	1200	26	46.2	-35%	
	10/07/2019	2300	330	7.0	-15%	1300	21	61.9	-34%	
	14/01/2020	2100	340	6.2	11%	1200	19	63.2	-2%	
	3/03/2020	2000	290	6.9	1%	1200	17	70.6	-14%	
GW03	28/11/2018	2900	510	5.7	*I.D.*	1800	190	9.5	*I.D.*	
	15/01/2019	3100	590	5.3	8%	1900	270	7.0	26%	
	19/02/2019	3500	630	5.6	2%	1800	180	10.0	-6%	
	10/07/2019	3400	540	6.3	-20%	1900	170	11.2	-59%	

Bore ID	Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (Ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (Ratio)	% Red.	Repeated ratio exceedance?
	14/01/2020	3300	550	6	5%	1800	160	11.3	-1%	
WRK300	10/01/2018	1700	320	5.3	6%	1000	150	6.7	13%	
	6/03/2018	1700	330	5.2	8%	920	130	7.1	8%	
	17/07/2018	1600	290	5.5	-4%	880	140	6.3	6%	
	18/10/2018	1700	310	5.5	-3%	910	130	7.0	-5%	
	21/01/2019	1800	300	6.0	-9%	910	150	6.1	3%	
	18/02/2019	1700	330	5.2	7%	910	130	7.0	-11%	
	21/03/2019	1800	310	5.8	-5%	1000	180	5.6	12%	
	17/04/2019	1800	290	6.2	-13%	970	150	6.5	-3%	
	16/07/2019	1700	300	5.7	6%	990	130	7.6	-26%	
	16/01/2020	1700	310	5.5	3%	1100	150	7.3	4%	
BORES CROSS-GRADIENT OF PIT 23										
BW28A *	20/08/2018	7200	870	8.3	-14%	3600	510	7.1	7%	
	17/01/2019	7100	1000	7.1	9%	3500	540	6.5	2%	
	18/02/2019	7200	1100	6.5	16%	3400	490	6.9	-5%	
	3/07/2019	7100	920	7.7	-9%	3600	500	7.2	-11%	
	13/01/2020	6900	960	7.2	7%	3400	460	7.4	-3%	
	26/02/2020	7000	850	8.2	-7%	3600	490	7.3	-2%	
BW45B	29/11/2018	4800	840	5.7	*I.D.*	2500	290	8.6	*I.D.*	
	17/01/2019	5100	960	5.3	7%	2500	320	7.8	9%	
	6/03/2019	5100	910	5.6	2%	2500	310	8.1	6%	
	20/03/2019	5300	960	5.5	3%	2700	320	8.4	2%	
	15/04/2019	5400	810	6.7	-17%	2600	300	8.7	-1%	
	14/05/2019	5100	870	5.9	-3%	2900	320	9.1	-5%	
	18/06/2019	5300	860	6.2	-8%	2700	290	9.3	-8%	
	8/07/2019	5000	860	5.8	-9%	2800	310	9.0	-16%	
	14/08/2019	4900	860	5.7	-7%	2600	320	8.1	-4%	
	15/01/2020	4900	920	5.3	8%	2800	320	8.8	3%	
	26/02/2020	5100	810	6.3	-8%	2700	300	9.0	0%	
GW04 *	28/11/2018	2700	690	3.9	*I.D.*	1700	120	14.2	*I.D.*	
	15/01/2019	2800	720	3.9	1%	1900	110	17.3	-22%	
	8/07/2019	2800	640	4.4	-13%	1700	120	14.2	18%	
	1/08/2019	3000	570	5.3	-35%	1600	140	11.4	**34%**	**Yes (Na:Ca)**
	12/09/2019	2900	680	4.3	-10%	1700	130	13.1	**24%**	**Yes (Na:Ca)**
	15/01/2020	2900	520	5.6	-27%	1600	140	11.4	**19%**	
	20/02/2020	2800	540	5.2	-19%	1700	130	13.1	8%	
GW07	7/06/2018	5500	890	6.18	*I.D.*	3000	460	6.522	*I.D.*	
	17/01/2019	5700	1100	5.18	16%	2900	560	5.179	21%	
	19/02/2019	5700	1000	5.70	8%	2800	410	6.829	-5%	
	21/03/2019	5900	990	5.96	4%	3100	440	7.045	-8%	
	3/07/2019	5800	880	6.59	-27%	3100	390	7.949	-53%	
	9/01/2020	5700	1000	5.7	14%	3100	400	7.8	3%	
	26/02/2020	5600	890	6.3	5%	3100	390	7.9	0%	
BORES REPRESENTATIVE OF BACKGROUND										
IWB2	18/10/2018	1200	160	7.5	6%	670	11	60.9	-7%	
	10/01/2019	1200	160	7.5	0%	660	11	60.0	7%	
	11/07/2019	1200	170	7.1	6%	650	9.2	70.7	-18%	
	14/01/2020	1200	160	7.5	-6%	670	9.7	69.1	2%	
IWB6	3/07/2018	350	200	1.8	3%	300	6.7	44.8	-5%	
	10/01/2019	360	220	1.6	6%	290	6.3	46.0	-3%	
	11/07/2019	350	190	1.8	-13%	300	6	50.0	-9%	
	14/01/2020	330	250	1.3	28%	340	7.2	47.2	6%	
	20/02/2020	340	190	1.8	3%	310	6.3	49.2	2%	
BW53 (Puls)	3/07/2018	790	270	2.9	-22%	530	34	15.6	-173%	
	10/01/2019	570	230	2.5	15%	350	37	9.5	39%	
	19/02/2019	860	330	2.6	**11%**	520	43	12.1	**22%**	**Yes (Both)**
	10/07/2019	840	310	2.7	**-9%**	530	29	18.3	**-93%**	
	13/01/2020	750	310	2.4	11%	500	29	17.2	6%	
	26/02/2020	770	310	2.5	8%	520	31	16.8	8%	

Bore ID	Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (Ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (Ratio)	% Red.	Repeated ratio exceedance?

NOTES

- Calculated ratios in green represent values that increase following an initial “>10%” reduction (i.e. no consecutive >10% reduction)
- Calculated ratios in red represent values above the “>10%” reduction threshold (initial identified exceedance).
- Calculated ratios in red highlight represent a confirmed “>10%” reduction in consecutive or follow-up samples
- I.D. = insufficient data to allow calculation of ionic ratio (only one data-point available)
- GW04 has previously been incorrectly referenced as being down gradient of Pit 23. Groundwater modelling and particle tracking per EMM (2019) indicate that GW04 is cross-gradient to the predicted groundwater flow path from Pit 23.
- BW28A is incorrectly referenced in the EMP (Revision 4) as being down-gradient of Pit 23. Groundwater modelling and particle tracking per CDM Smith (2014) and EMM (2019) indicate that BW28A is cross-gradient to the predicted groundwater flow path from Pit 23.

4.1.3.2 Radionuclide concentrations

In accordance with Section 7.6.7 of the EMP, biannual groundwater samples obtained from the monitoring locations are subjected to in-field and laboratory analysis for a suite of target parameters, which includes target radionuclides (Thorium, Uranium, Radium-226, Radium-228 and Uranium-238).

Radionuclide concentrations determined during both scheduled and follow-up sampling are presented in Table 4. Ionic balance ratios are also shown to identify any potential correlation with seepage from Pit 23. In summary:

- several exceedances of the Uranium-238 (U-238) and Radium-228 (Ra-228) upper trigger levels were observed in the reporting period in several bores up-gradient and cross-gradient to Pit 23 (i.e. in bores not on the predicted flow path or which represent local background conditions);
- ionic balance ratios showed frequent fluctuation spatially and temporally, and between samples obtained over relatively short time periods, with no correlation to radionuclide concentrations. This suggests that the measured radionuclide concentrations and ‘exceedances’ are the product of natural variation, consistent with the findings of previous groundwater studies for the greater Douglas site (Jacobs 2014; CDM Smith 2014; EMM 2018).

The long-term trends in Ra-228 and U-238 concentrations verses ionic balance ratios are shown in Figure 7 – Figure 22. Consistent with the above summary, there is no evident correlation between elevated radionuclide concentrations and fluctuation or declining trends in Cl:SO4 or Na:Ca ratios.

It is recognised that this ionic balance ratio ‘percentage-reduction’ approach to trigger the completion of a groundwater investigation in the current endorsed EMP (Rev 4, July 2017) was based on limited available baseline data at the time of EMP development. This method is thus conservative and overly sensitive to natural variation and is likely to result in ‘false flag’ exceedances, as demonstrated in the McGlashin Swamp Seepage Exceedances Assessment completed by EMM in the 2018 reporting period (EMM, 2018). That is, the current approach does not consider trend-based change in groundwater chemistry that accounts for seasonality or other influences on groundwater chemistry over a sufficient period of time. Revised site-specific trigger levels for groundwater quality, developed using the now expanded monitoring dataset and applying a trend-based trigger approach across all target analytes per the ANZECC/ARCMANZ (2000) guidelines, will therefore be implemented in the next revision of the EMP (Revision 5).

Table 4: Groundwater radionuclide concentrations vs. ionic balance ratios, H1 2020

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4 Ratio	CL:SO4 % Red.	Na:Ca Ratio	Na:Ca % Red.	Groundwater Travel Time (Years) *
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	
BORES UP-GRADIENT OF PIT 23											
GW05	15/11/2018	<0.002	<0.002	<0.025	0.05	0.12	5.5	*I.D.*	10.6	*I.D.*	N/A – bores are up-gradient of Pit 23 Cl:SO4 and Na:Ca ratios shown to demonstrate natural variation only
	15/01/2019	<0.002	<0.002	<0.025	<0.05	0.09	4.8	13%	11	-4%	
	19/02/2019	<0.002	<0.002	<0.025	<0.05	<0.08	5	-10%	11.1	-5%	
	8/07/2019	<0.002	0.001	<0.025	0.02	<0.08	4.7	2%	13.6	-23%	
	15/01/2020	<0.002	<0.001	<0.025	0.03	0.13	4.1	14%	21.0	-55%	
	20/02/2020	<0.002	<0.001	<0.025	0.04	0.1	4.5	4%	21.8	-61%	
GW06	12/06/2018	<0.002	0.072	0.037	0.11	0.14	4.4	*I.D.*	5.1	*I.D.*	
	14/01/2019	<0.002	0.105	**1.3**	0.05	0.22	3.9	10%	5.4	-5%	
	21/03/2019	<0.002	0.071	**0.877**	<0.05	0.09	4.2	3%	5.5	-6%	
	17/04/2019	<0.002	0.089	**1.1**	0.06	0.19	4.7	-18%	5.5	-1%	
	22/05/2019	<0.002	0.079	**0.975**	0.04	0.14	4.9	-23%	5.1	6%	
	18/06/2019	<0.002	0.003	<0.025	0.04	0.2	4.5	-15%	5.9	-9%	
	4/07/2019	<0.002	0.072	**0.889**	0.06	0.17	4.5	-15%	5.7	-6%	
	22/01/2020	<0.002	0.003	0.025	0.04	0.21	3.8	17%	5.6	3%	
	24/02/2020	<0.002	0.003	**1.33**	0.16	0.08	4.5	1%	5.7	1%	
GW08	29/11/2018	<0.002	0.002	0.025	0.09	0.24	4.8	*I.D.*	7.2	*I.D.*	
	14/01/2019	<0.002	0.064	**0.79**	<0.05	<0.08	5.1	-5%	5.9	17%	
	18/02/2019	<0.002	0.009	0.111	0.09	0.12	4.8	1%	6.1	**15%**	
	10/07/2019	<0.002	0.024	<0.025	0.04	0.08	5.9	-10%	6.5	-10%	
	20/01/2020	<0.003	0.001	**2.86**	0.07	<0.08	5.0	10%	6.5	0%	
	25/02/2020	<0.004	0.001	**1.31**	0.07	0.09	5.2	8%	6.7	-2%	
	5/05/2020	<0.002	<0.001	0.148	0.06	<0.08	5.2	6%	9.5	-45%	
WRK301	10/07/2018	<0.002	0.008	0.049	0.14	0.17	6.5	-35%	6.5	4%	
	21/01/2019	<0.002	0.017	0.21	0.07	0.09	5	21%	5.9	10%	
	18/02/2019	<0.002	0.005	0.062	0.05	<0.08	4.9	**24%**	6.5	0%	

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4 Ratio	CL:SO4 % Red.	Na:Ca Ratio	Na:Ca % Red.	Groundwater Travel Time (Years) *
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	
	15/07/2019	<0.002	0.008	0.037	0.04	0.11	5.6	-11%	7.4	-26%	
	22/01/2020	0.0024	0.005	0.037	0.06	<0.08	5.2	8%	6.5	12%	
	25/02/2020	<0.002	0.005	**0.395**	0.01	<0.08	5.3	5%	6.7	10%	
WRK302	10/07/2018	<0.002	0.059	0.148	0.19	0.76	5	-15%	6.7	8%	
	14/01/2019	<0.002	0.048	**0.593**	0.16	1.01	4.3	13%	7.1	-6%	
	18/02/2019	<0.002	0.046	**0.568**	0.31	1.14	4.8	4%	6.1	9%	
	21/03/2019	<0.002	0.116	**1.43**	0.27	0.94	4.4	12%	7.1	-6%	
	17/04/2019	<0.002	0.018	**0.222**	0.21	1.08	5.1	-2%	6.4	5%	
	22/05/2019	<0.002	<0.002	<0.025	0.12	0.84	5.1	-3%	6.9	-2%	
	4/07/2019	<0.002	0.001	0.086	0.24	0.91	4.6	-5%	7.8	-10%	
	1/08/2019	<0.002	<0.001	**0.728**	0.22	0.92	4.6	-7%	7.1	1%	
	20/01/2020	<0.002	<0.001	**0.296**	0.34	1.02	4.1	10%	7.6	3%	
WRK303	10/07/2018	<0.002	<0.002	<0.025	<0.06	<0.09	4.2	-10%	12.7	5%	
	14/01/2019	<0.002	<0.002	<0.025	<0.05	<0.08	4	4%	11.5	9%	
	15/07/2019	<0.002	<0.001	<0.025	0.04	<0.08	4.7	-17%	13.3	-16%	
	23/01/2020	<0.002	<0.001	<0.025	0.03	<0.08	4.8	-2%	12.9	4%	
WRK304	10/07/2018	<0.002	<0.002	<0.025	<0.05	<0.08	3.4	0%	15.1	-3%	
	14/01/2019	<0.002	<0.002	<0.025	<0.05	<0.08	3.2	6%	16.1	-7%	
	15/07/2019	<0.002	<0.001	<0.025	0.02	<0.08	3.8	-16%	16	1%	
	22/01/2020	<0.002	<0.001	**2.7**	<0.01	<0.08	3.6	5%	17	-7%	
	5/03/2020	<0.002	<0.001	<0.025	<0.01	<0.08	3.9	-4%	14.5	9%	
BORES DOWN-GRADIENT OF PIT 23 (IN PREDICTED FLOW PATH)											
BW36A	11/12/2019	<0.002	0.002	<0.025	0.07	0.17	7.5	*I.D.*	10	*I.D.*	
	16/01/2020	<0.002	<0.001	<0.025	<0.01	<0.08	13.3	-78%	11.2	-12%	
WRK300	18/10/2018	<0.002	<0.001	*N.S.*	*N.S.*	*N.S.*	5.5	-3%	7	-5%	
	21/01/2019	<0.002	<0.002	<0.025	<0.05	<0.08	6	-9%	6.1	3%	
	18/02/2019	<0.002	<0.002	<0.025	<0.05	<0.08	5.2	7%	7	-11%	36 years
	21/03/2019	<0.002	0.002	<0.025	<0.05	<0.08	5.8	-5%	5.6	12%	

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4 Ratio	CL:SO4 % Red.	Na:Ca Ratio	Na:Ca % Red.	Groundwater Travel Time (Years) *
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	
	17/04/2019	<0.002	<0.002	<0.025	0.03	0.09	6.2	-13%	6.5	-3%	
	16/07/2019	<0.002	<0.002	<0.025	0.03	<0.08	5.7	6%	7.6	-26%	
	16/01/2020	<0.002	0.001	<0.025	0.02	0.08	5.5	3%	7.3	4%	
GW01	7/06/2018	<0.002	<0.001	<0.025	<0.05	<0.08	8.4	*I.D.*	6	*I.D.*	88 years
	15/01/2019	<0.002	<0.001	<0.025	0.48	1.36	8.5	-1%	27.7	-363%	
	20/03/2019	<0.002	0.001	<0.025	0.48	0.72	8.3	2%	29.4	-6%	
	15/04/2019	<0.002	<0.001	<0.025	0.4	1.2	10	-18%	25.3	9%	
	14/05/2019	0.0095	0.009	<0.025	0.47	1.36	9.4	-11%	32.8	-18%	
	18/06/2019	<0.002	<0.002	<0.025	0.46	1.29	8	5%	32.1	-16%	
	8/07/2019	<0.002	0.002	<0.025	0.28	0.77	8.5	0%	32.7	-18%	
	15/01/2020	<0.002	<0.001	<0.025	0.32	0.81	7.4	12%	20.7	37%	
	20/02/2020	<0.002	<0.001	<0.025	0.32	0.9	7.6	**11%**	26.0	**21%**	
GW02	28/11/2018	<0.002	<0.001	<0.025	0.05	0.11	5.1	*I.D.*	34.2	*I.D.*	144 years
	15/01/2019	<0.002	<0.001	<0.025	0.05	0.15	6	-18%	46.1	-35%	
	10/07/2019	<0.002	<0.001	**0.296**	0.1	0.32	7	-15%	61.9	-34%	
	14/01/2020	<0.002	<0.001	<0.025	0.05	0.14	6.2	11%	63.2	-2%	
	3/03/2020	0.004	<0.001	<0.025	0.08	0.27	6.9	1%	70.6	-14%	
GW03	28/11/2018	<0.002	<0.002	0.025	0.07	0.16	5.7	*I.D.*	9.5	*I.D.*	176 years
	15/01/2019	<0.002	<0.002	<0.025	<0.05	<0.08	5.3	8%	7	26%	
	19/02/2019	<0.002	<0.002	<0.025	<0.05	<0.08	5.6	2%	10	-6%	
	10/07/2019	<0.002	<0.001	<0.025	0.01	<0.08	6.3	-20%	11.2	-59%	
	14/01/2020	<0.002	<0.001	<0.025	0.01	<0.08	6	5%	11.3	-1%	
BW05	18/10/2018	<0.002	0.03	<0.025	<0.05	<0.08	11	-23%	18.8	-11%	500+ years
	17/01/2019	<0.002	0.004	0.037	<0.05	<0.08	8.6	17%	15.5	35%	
	20/03/2019	<0.002	0.003	0.049	<0.05	<0.08	9.4	10%	18.1	**24%**	
	3/07/2019	<0.002	0.003	<0.025	0.03	<0.08	9.6	-12%	19.2	-24%	
	13/01/2020		0.002	<0.025	<0.01	<0.08	9.0	7%	19.6	-2%	
BORES CROSS-GRADIENT OF PIT 23											

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4		Na:Ca		Groundwater Travel Time (Years) *
							Ratio	*% Red.*	*Ratio*	*% Red.*	
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	
BW28A *	20/08/2018	<0.002	0.005	0.074	0.09	<0.08	8.3	-14%	7	7%	N/A - Bores not on flow path from Pit 23 Cl:SO4 and Na:Ca ratios shown to demonstrate natural variation only
	17/01/2019	<0.002	0.005	**1.48**	0.13	<0.08	7.1	9%	6.5	2%	
	18/02/2019	<0.002	0.005	0.173	0.17	<0.08	6.5	16%	6.9	-5%	
	3/07/2019	<0.002	0.006	**0.679**	0.13	<0.08	7.7	-9%	7.2	-11%	
	13/01/2020	<0.002	0.006	**2.16**	0.1	<0.08	7.2	7%	7.4	-3%	
	26/02/2020	<0.002	0.007	**0.234**	0.12	<0.08	8.2	-7%	7.3	-2%	
BW45B	29/11/2018	<0.002	<0.001	<0.025	0.22	0.86	5.6	*I.D.*	8.6	*I.D.*	
	17/01/2019	<0.002	0.001	<0.025	0.42	**2.4**	5.3	7%	7.8	9%	
	6/03/2019	<0.002	0.001	<0.025	0.45	**2.6**	5.6	2%	8	6%	
	20/03/2019	<0.002	0.012	0.037	0.83	**2.77**	5.5	3%	8.4	2%	
	15/04/2019	<0.002	0.005	**0.667**	0.53	**3.08**	6.7	-17%	8.7	-1%	
	14/05/2019	<0.002	0.015	0.099	0.63	**2.94**	5.9	-3%	9	-5%	
	18/06/2019	<0.002	0.012	**0.222**	0.69	**3.4**	6.2	-8%	9.3	-8%	
	8/07/2019	<0.002	0.014	0.148	0.72	**3.18**	5.8	-9%	9	-16%	
	14/08/2019	<0.002	0.002	0.025	0.52	**2.2**	5.7	-7%	8.1	-4%	
	15/01/2020	<0.002	0.006	0.099	0.51	**2.81**	5.3	8%	8.75	3%	
	26/02/2020	<0.002	<0.001	0.086	0.52	**2.9**	6.3	-8%	9	0%	
GW04	28/11/2018	<0.002	<0.002	<0.025	0.07	0.15	3.9	*I.D.*	14.2	*I.D.*	
	15/01/2019	<0.002	<0.002	<0.025	0.09	0.19	3.9	1%	17.3	-22%	
	8/07/2019	<0.002	<0.001	<0.002	0.1	0.2	4.4	-13%	14.2	18%	
	1/08/2019	<0.002	<0.001	<0.025	0.13	0.24	5.3	-35%	11.4	**34%**	
	12/09/2019	<0.002	<0.001	<0.025	0.12	0.24	4.3	-10%	13.1	**24%**	
	15/01/2020	<0.002	<0.001	<0.025	0.1	0.25	5.6	-27%	11.4	19%	
	20/02/2020	<0.002	<0.001	<0.025	0.14	0.26	5.2	-19%	13.1	8%	
GW07	7/06/2018	<0.002	0.001	<0.025	<0.05	<0.08	6.2	*I.D.*	6.5	*I.D.*	
	17/01/2019	<0.002	<0.001	**0.296**	0.06	0.32	5.2	16%	5.2	21%	
	19/02/2019	<0.002	<0.001	**0.556**	<0.05	0.28	5.7	8%	6.8	-5%	

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4 Ratio	CL:SO4 % Red.	Na:Ca Ratio	Na:Ca % Red.	Groundwater Travel Time (Years) *
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	
	21/03/2019	<0.002	<0.001	<0.025	<0.05	0.12	6	4%	7	-8%	
	3/07/2019	<0.002	<0.001	**0.259**	0.06	0.2	6.6	-27%	7.9	-53%	
	9/01/2020	<0.002	<0.001	**2.04**	0.08	0.19	5.7	14%	7.8	3%	
	26/02/2020	<0.002	<0.001	0.037	0.07	0.24	6.3	5%	7.9	0%	
BORES REPRESENTATIVE OF BACKGROUND											
IWB2	18/10/2018	<0.002	<0.001	<0.025	0.03	<0.08	7.5	6%	60.9	-7%	N/A - Bores not on flow path from Pit 23
	10/01/2019	<0.002	<0.001	<0.025	<0.05	0.08	7.5	0%	60	7%	
	11/07/2019	<0.002	<0.001	<0.025	0.03	<0.08	7	6%	70.6	-18%	
	14/01/2020	<0.002	<0.001	<0.025	0.06	0.12	7.5	-6%	69.1	2%	
IWB6	3/07/2018	<0.002	<0.001	0.037	<0.05	<0.08	1.7	3%	44.8	-5%	
	10/01/2019	<0.002	<0.001	<0.025	<0.05	<0.08	1.7	6%	46	-3%	
	11/07/2019	<0.002	<0.001	<0.025	0.02	<0.08	1.8	-13%	50	-9%	
	14/01/2020	<0.002	<0.001	<0.025	0.03	<0.08	1.3	28%	47.2	6%	
	20/02/2020	<0.002	<0.001	<0.025	0.02	<0.08	1.8	3%	49.2	2%	
BW53 ("Puls")	3/07/2018	<0.002	<0.001	<0.025	<0.05	0.11	2.9	-22%	15.6	-173%	
	10/01/2019	<0.002	<0.001	<0.025	<0.05	0.19	2.5	15%	9.6	39%	
	19/02/2019	<0.002	<0.001	<0.025	<0.05	0.16	2.6	**11%**	12.1	**22%**	
	10/07/2019	<0.002	<0.001	<0.025	0.04	0.11	2.7	-9%	18.3	-93%	
	13/01/2020	<0.002	<0.002	<0.025	0.04	0.12	2.4	11%	17.2	6%	
	26/02/2020	<0.002	<0.002	<0.025	0.03	0.17	2.5	8%	16.8	8%	

NOTES

- < = results below the laboratory limit of detection. These are treated as a negative (-) concentrations in figures presented in this report to allow graphical representation.
- Results highlighted in **orange** indicate an exceedance of the precautionary trigger
- Results highlighted in **pink** indicate an exceedance of the upper trigger
- Calculated ratios in green represent values that increase following an initial ">10%" reduction (i.e. no consecutive >10% reduction)
- Calculated ratios in red represent values above the ">10%" reduction threshold (initial identified exceedance).
- Calculated ratios in red highlighted represent a confirmed ">10%" reduction in consecutive or follow-up samples
- N.S. = not sampled / analysed

Bore ID	Date	Thorium (mg/L)	Uranium (mg/L)	U-238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)	CL:SO4 Ratio	CL:SO4 % Red.	Na:Ca Ratio	Na:Ca % Red.	Groundwater Travel Time (Years) *
Precautionary trigger		***n/a***	***0.17***	***0.17***	***4.3***	***1.7***	***n/a***	***n/a***	***n/a***	***n/a***	
Upper trigger		***n/a***	***0.2***	***0.2***	***5***	***2***	***n/a***	***n/a***	***n/a***	***n/a***	

- I.D. = insufficient data to allow calculation of ionic ratio (only one data-point available)
- Groundwater arrival year is based on groundwater model predictions (particle tracking) per CDM Smith (2015) and EMM (2019), and assumes that groundwater flow originates from Pit 23 immediately on commencement of the first by-product disposal to into Pit 23 (December 2011).
- GW04 is incorrectly referenced in the EMP (Revision 4) as being down gradient of Pit 23. Groundwater modelling and particle tracking per EMM (2019) indicate that GW04 is cross-gradient to the predicted groundwater flow path from Pit 23.
- BW28A is incorrectly referenced in the EMP (Revision 4) as being down-gradient of Pit 23. Groundwater modelling and particle tracking per CDM Smith (2014) and EMM (2019) indicate that BW28A is cross-gradient to the predicted groundwater flow path from Pit 23.

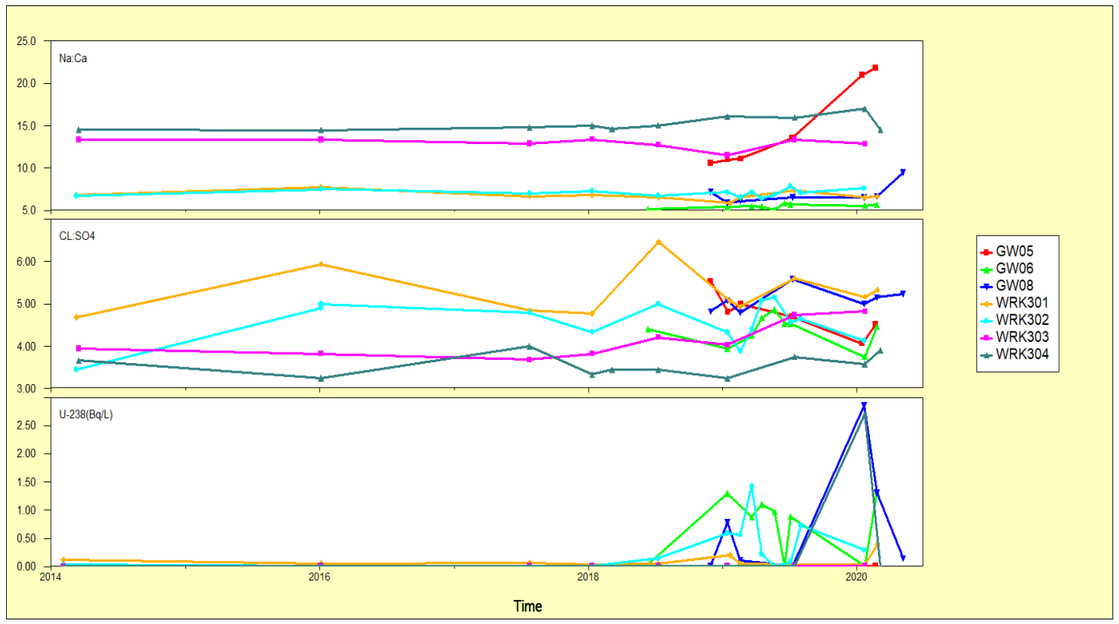


Figure 7: U-238 and ionic balance trends – up-gradient bores (1 of 2)

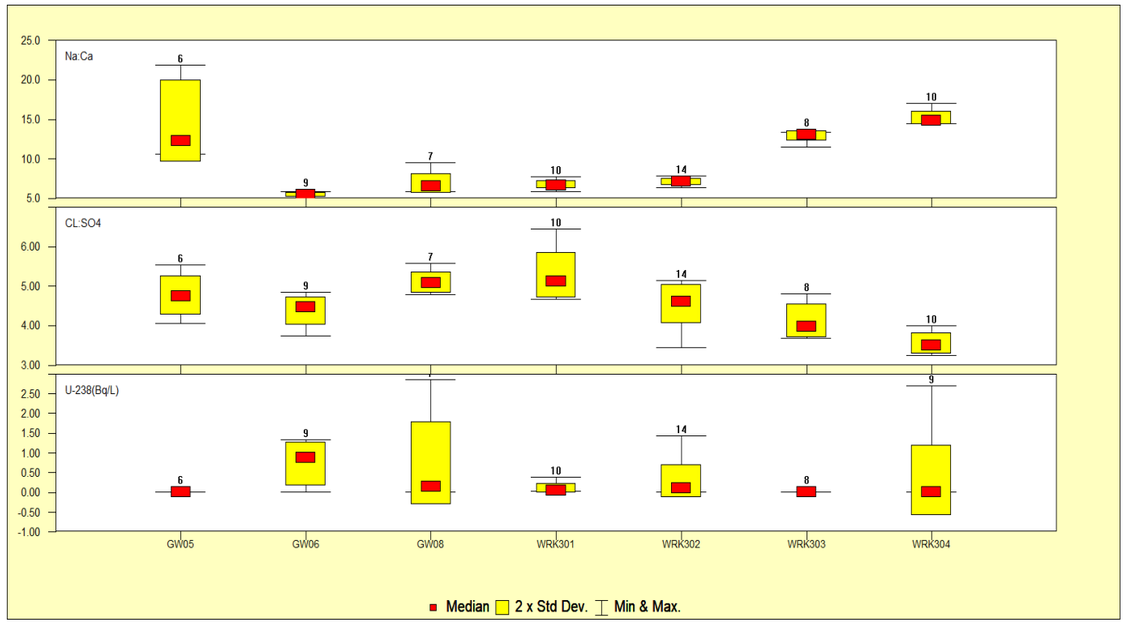


Figure 8: U-238 and ionic balance trends – up-gradient bores (2 of 2)

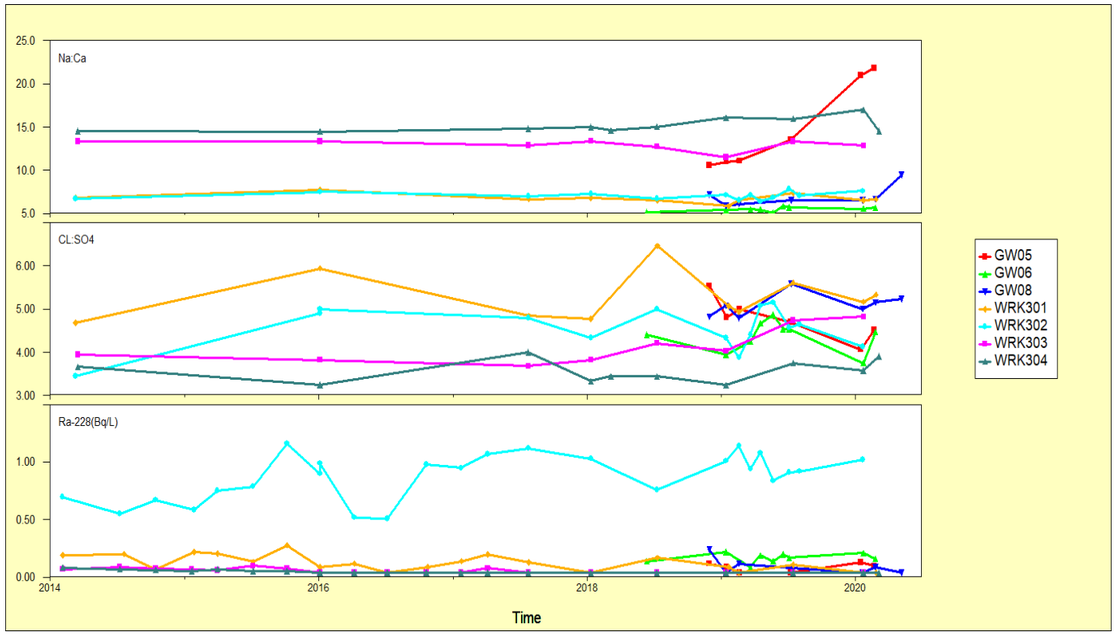


Figure 9: Ra-228 and ionic balance trends – up-gradient bores (1 of 2)s

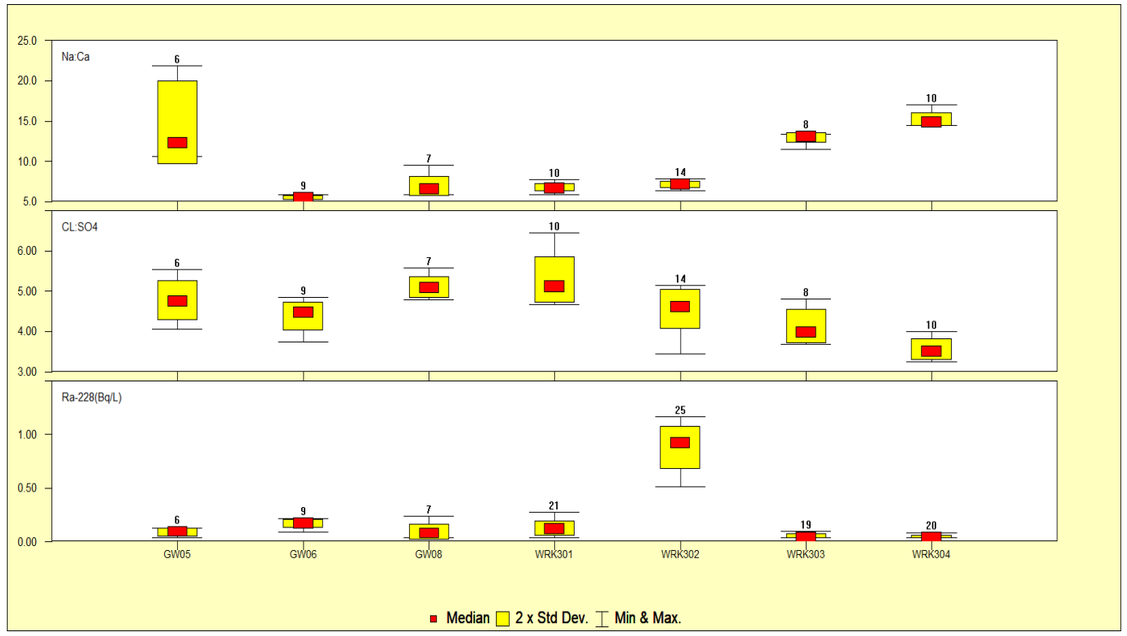


Figure 10: Ra-228 and ionic balance trends – up-gradient bores (2 of 2)

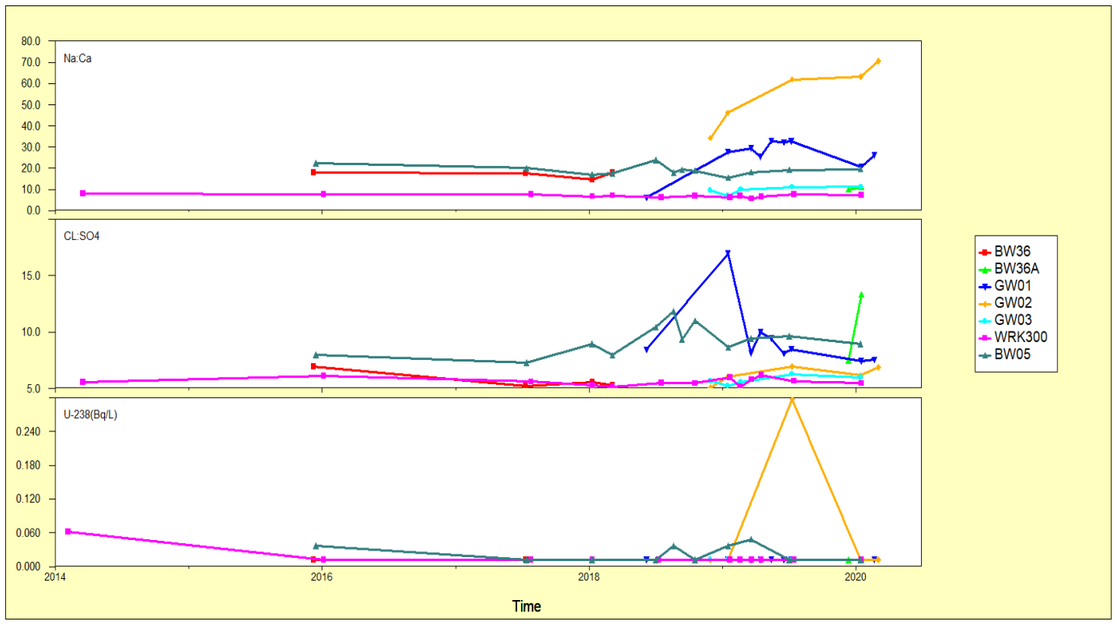


Figure 11: U-238 and ionic balance trends – down-gradient bores (1 of 2)

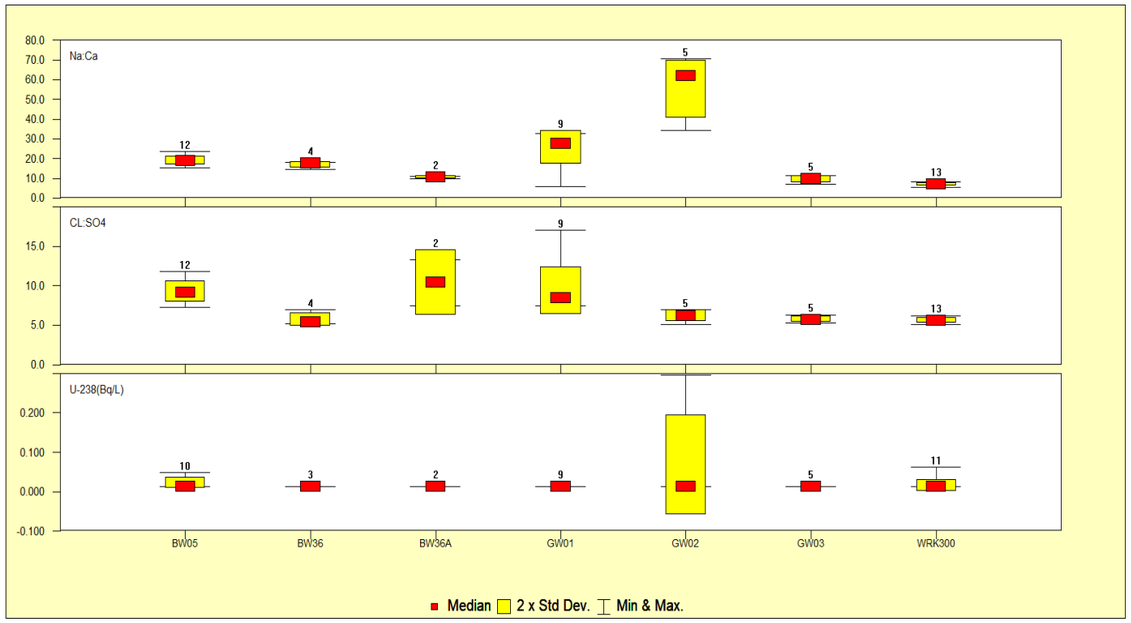


Figure 12: U-238 and ionic balance trends – down-gradient bores (2 of 2)

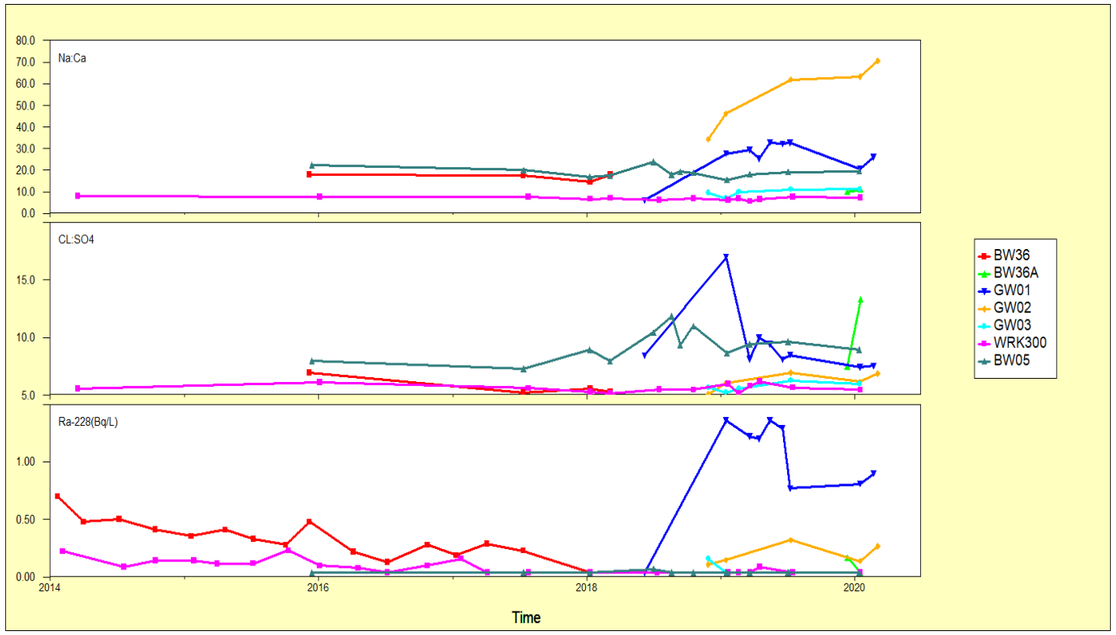


Figure 13: Ra-228 and ionic balance trends – down-gradient bores (1 of 2)

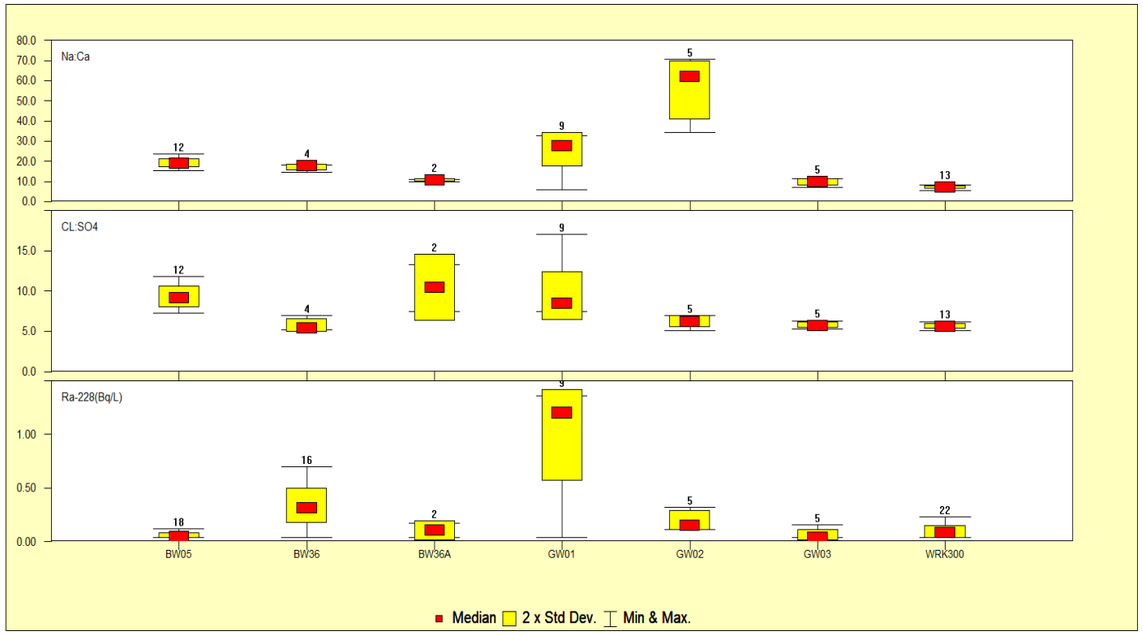


Figure 14: Ra-228 and ionic balance trends – down-gradient bores (2 of 2)

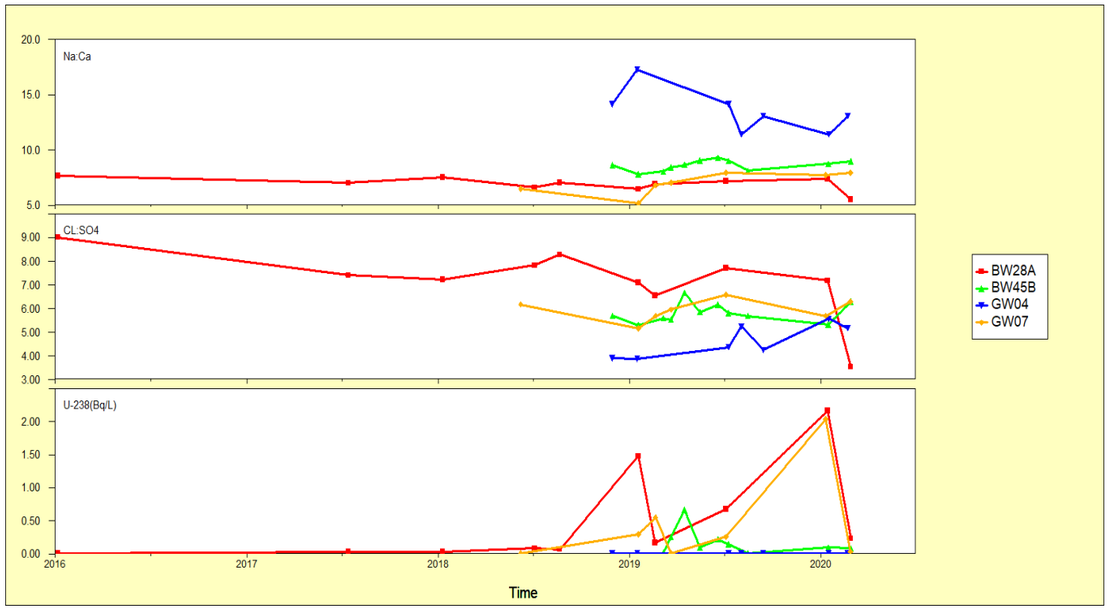


Figure 15: U-238 and ionic balance trends – cross-gradient bores (1 of 2)

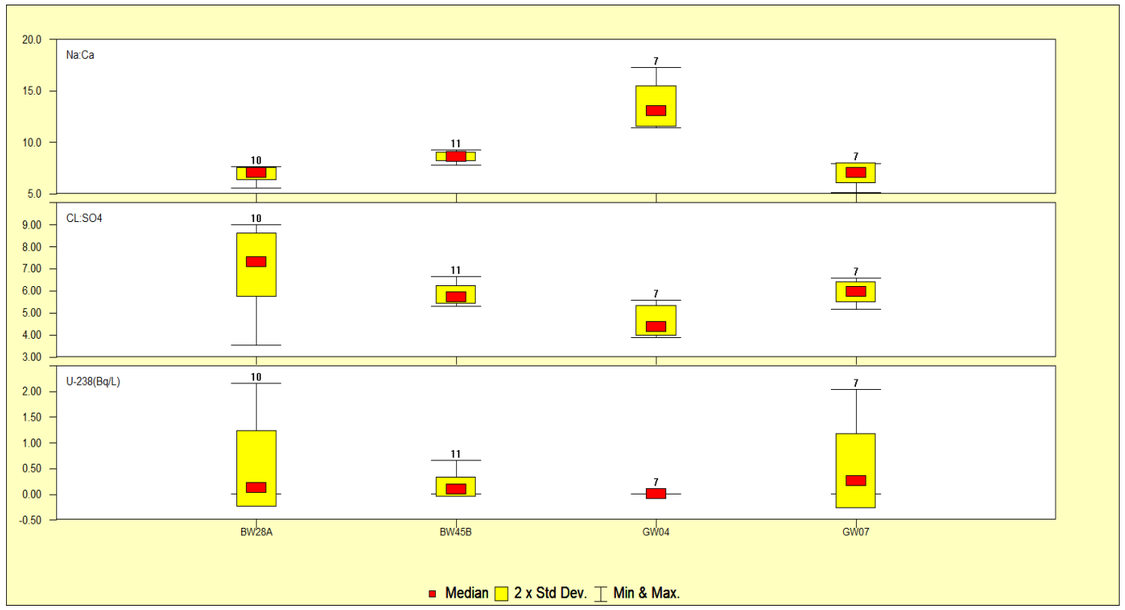


Figure 16: U-238 and ionic balance trends – cross-gradient bores (2 of 2)

Figure 17: Ra-228 and ionic balance trends – cross-gradient bores (1 of 2)

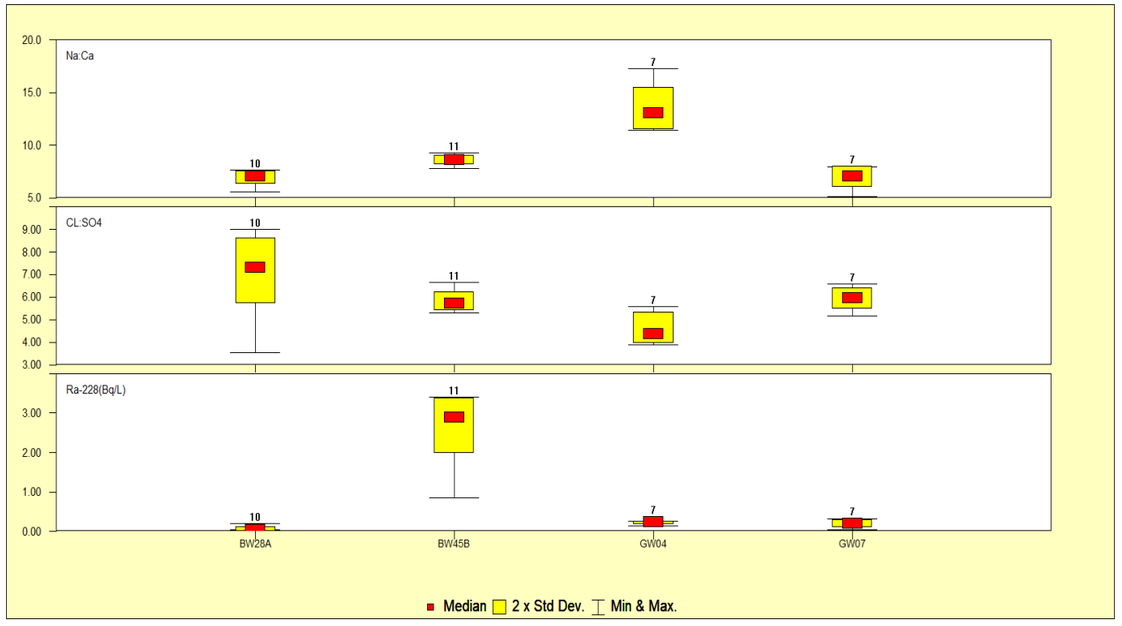


Figure 18: Ra-228 and ionic balance trends – cross-gradient bores (2 of 2)

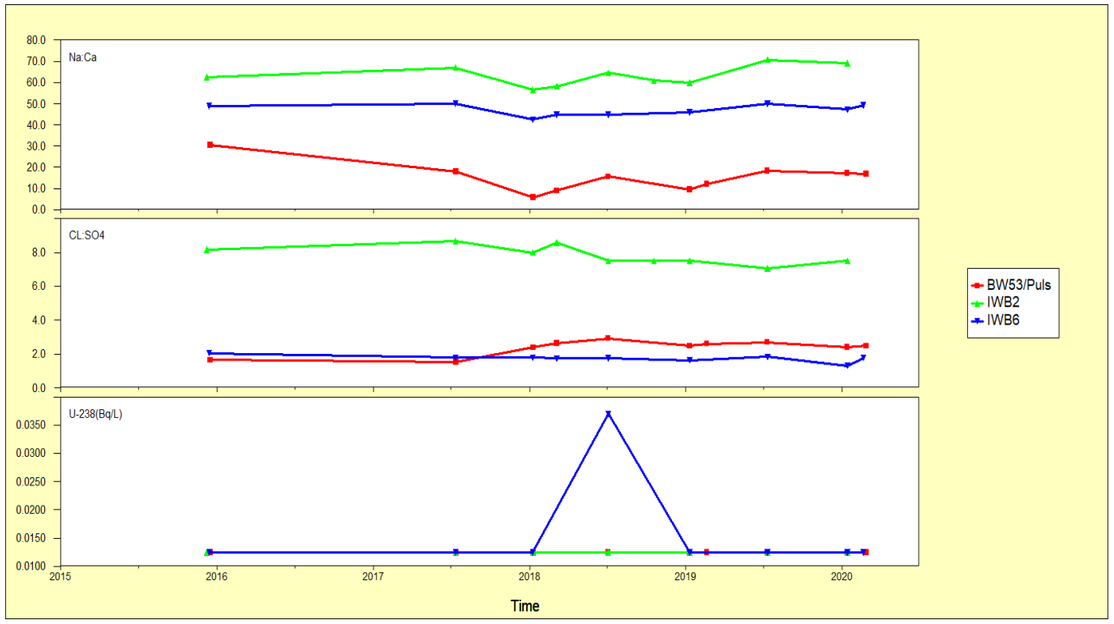


Figure 19: U-238 and ionic balance trends – bores representing background (1 of 2)

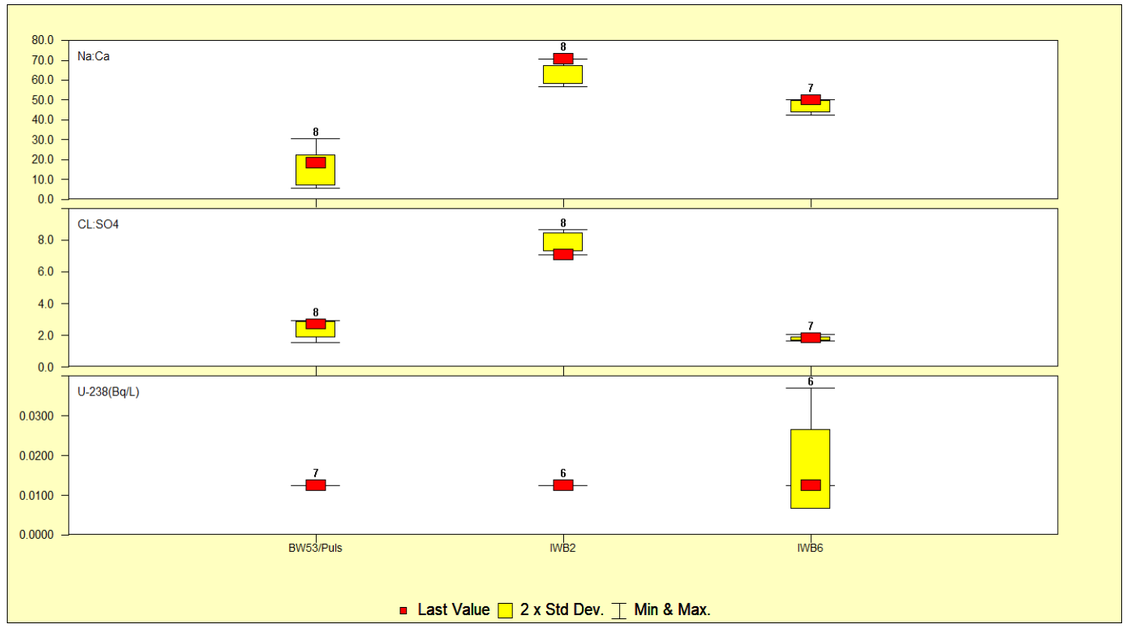


Figure 20: U-238 and ionic balance trends – bores representing background (2 of 2)

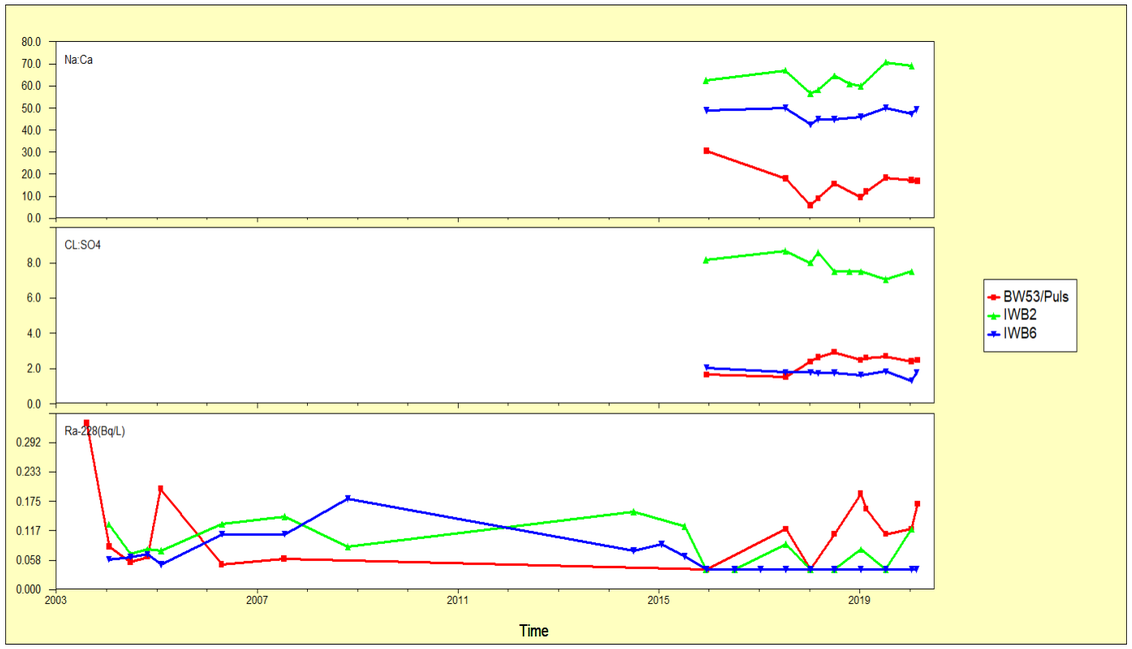


Figure 21: Ra-228 and ionic balance trends – bores representing background (1 of 2)

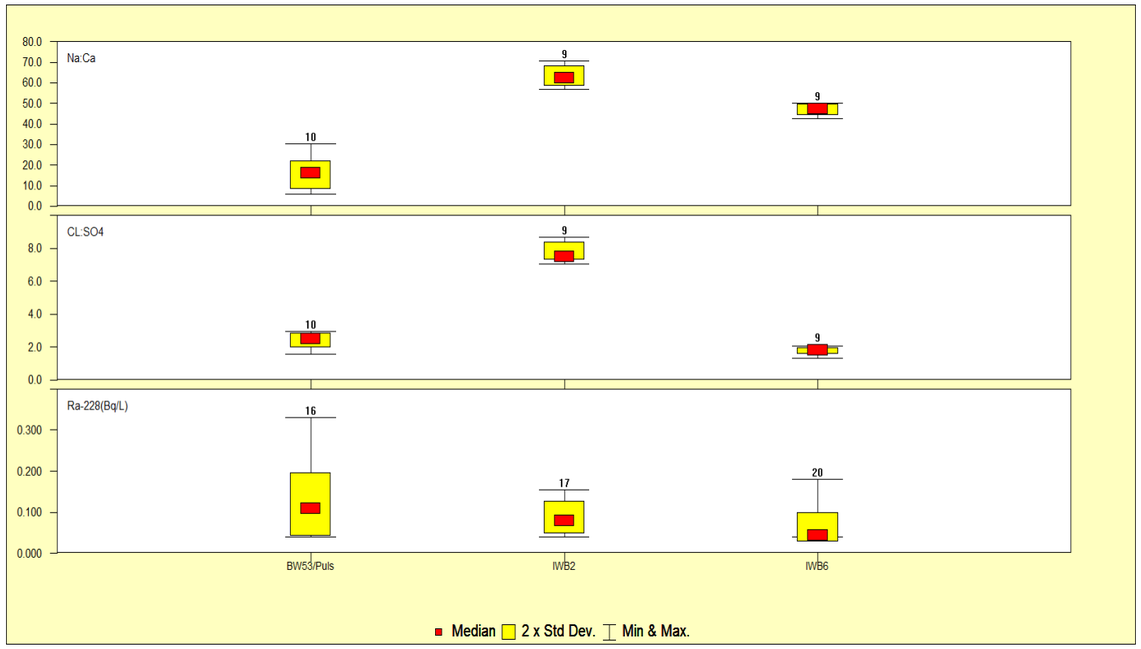


Figure 22: Ra-228 and ionic balance trends – bores representing background (2 of 2)

4.1.3.3 Other analytes

In accordance with Section 7.6.7 of the EMP, biannual groundwater samples obtained from the monitoring locations are subjected to in-field and laboratory analysis for a suite of target parameters.

Analyte concentrations above trigger limits that coincided with ionic balance ratio triggers are presented in Table 5 & Table 6 and Figure 23. In summary:

- sampling detected an elevated selenium result at GW01 during February as part of the follow up sampling required due to an ionic balance trigger that occurred during January's scheduled sampling;
- sufficient data is available to determine background concentrations for GW01, which is determined as the 75th percentile value based on the mean and standard deviation of the available data. For GW01, the 75th percentile (background) value is higher than the standard SEPP WoV objectives and therefore applies as the upper trigger (background value); and
- all results are consistent with historical values and do not indicate seepage from Pit 23.

Table 5: Groundwater quality exceedances vs ionic balance ratios, H1 2020

Bore ID	Date	Se (mg/L)	CL:SO4		Na:Ca	
			Ratio	*% Red.*	*Ratio*	*% Red.*
Precautionary trigger		***0.017***	***n/a***	***n/a***	***n/a***	***n/a***
Upper trigger		***0.02***	***n/a***	***n/a***	***n/a***	***n/a***
GW01	15/01/2020	0.018	7.4	12%	20.7	37%
Down	20/02/2020	**0.025**	7.6	**11%**	26.0	**21%**
Gradient	2 sample av	**0.022**				

Table 6:Selenium groundwater trigger levels for GW01, H1 2020

GW01	Se (mg/L)	AVG	Std Dev	Background (av+2SD)	Prec Trigger (85% of b/g)	Upper Trigger	Ion. Bal. Rep. Exceedance?	2-sample AVG	Comment
7/06/2018	0.002						No		min 5 results reqd for statistical analysis
15/01/2019	0.052	0.027	0.035	*0.098*			No	***0.027***	min 5 results reqd for statistical analysis
20/03/2019	0.054	0.036	0.029	*0.095*			No	***0.053***	min 5 results reqd for statistical analysis
15/04/2019	0.050	0.040	0.025	*0.090*			No	***0.052***	min 5 results reqd for statistical analysis
14/05/2019	0.070	0.046	0.026	0.097	0.082	0.097	No	***0.060***	
18/06/2019	0.039	0.045	0.023	0.091	0.077	0.091	**Yes (Cl:SO4)**	***0.055***	Cl:SO4 ratio triggered, SE below Precautionary trigger
8/07/2019	0.063	0.047	0.022	0.092	0.078	0.092	No	***0.051***	
15/01/2020	0.018	0.044	0.023	0.089	0.076	0.089	**Yes (Both ratio's)**	***0.041***	Both ratio's triggered, Se below Precautionary trigger
20/02/2020	0.025	0.046	0.018	0.082	0.070	0.082	**Yes (Both ratio's)**	***0.022***	Both ratio's triggered, Se below Precautionary trigger

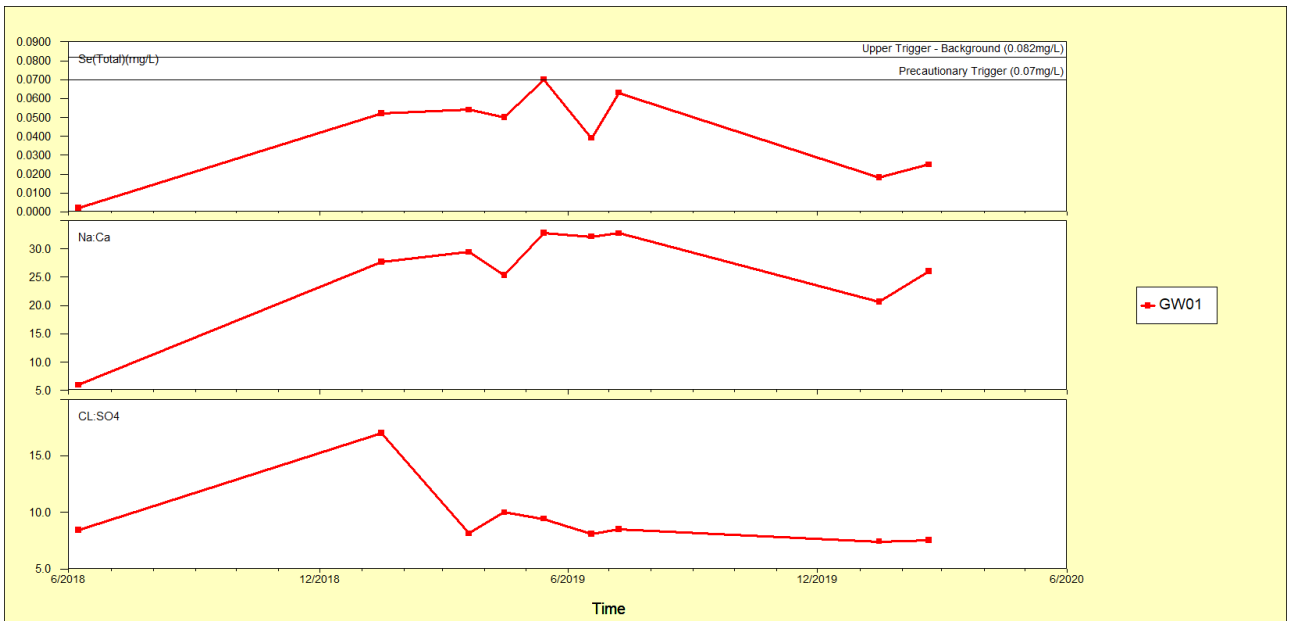


Figure 23: GW01 - Selenium as compared against ionic balance trends

All groundwater quality monitoring data (laboratory and field data) for the reporting period for all parameters monitored is provided in **Appendix B** and **Appendix C** of this report, respectively.

4.2 Surface water quality

4.2.1 Runoff-fed surface water sites

In accordance with Section 8.7.1 of the EMP, surface water samples must be obtained from nominated runoff-fed surface water monitoring points if a discharge of run-off from the disturbed area of Pit 23 and surrounds occurs.

No discharges occurred during the reporting period and subsequently no follow-up monitoring was required.

4.2.2 Groundwater-fed surface water sites

In accordance with Section 8.7.2 of the EMP, quarterly surface water samples obtained from the nominated groundwater-fed surface water monitoring points down-gradient of Pit 23 (i.e. surface water features receiving groundwater base-flow) are analysed for a suite of target parameters to identify the potential expression of Pit 23 groundwater seepage.

Results obtained for specific parameters are summarised in sections 4.2.2.1 - 4.2.2.3 below.

All surface water quality monitoring data for the reporting period and for all parameters monitored (laboratory and field results) is provided in **Appendix D** and **Appendix E** of this report.

4.2.2.1 Ionic balance ratios

Assessment of potential Pit 23 seepage and expression into surface waters is based on an analysis of Cl:SO4 and Na:Ca ratios obtained from quarterly monitoring, with a consecutive reduction in either ratio of >10% applied as potential indicator of Pit 23 seepage and expression at surface.

Ionic ratio results for nominated surface water monitoring locations in the H1 2020 reporting period are given in **Table 7**. The data presented includes results preceding and following the H1 2020 reporting period to show longer-term trends and to demonstrate the influence of seasonality in both the availability of data (ability to obtain samples) and the influence that this natural variability has on surface water chemistry and hence the calculated ratios. The reliability of ratios calculated from data obtained after a long elapsed period of time (i.e. due to a lack of recent samples), and which suggest

a consecutive >10% ratio exceedance, thus need to be interpreted with caution as they are more likely to reflect natural variation than any influence of Pit 23 seepage.

With reference to Table 7, no reductions of >10% exceedances in either one or both ratio's occurred during the reporting period.

Table 7: Surface water monitoring - ionic ratio balance results

Sample Point	Sample Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (ratio)	% Red.	Repeated ratio exceedance?
GROUNDWATER-FED SITES ALONG FLOW PATH FROM PIT 23										
DUSW20 (NW drainage line)	26/06/2017	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	12/09/2017	360	61	5.90	*I.D.*	230	27	8.52	*I.D.*	
	11/10/2017	1100	150	7.33	-24%	630	71	8.87	-4%	
	15/01/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	19/06/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	17/07/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	8/08/2018	1100	200	5.50	**25%**	660	52	12.69	-43%	
	12/09/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	17/10/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	8/01/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	9/04/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	14/08/2019	82	36	2.28	**59%**	100	9.3	10.75	**15%**	
	16/09/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	24/10/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
DUSW24 (McGlashin Swamp)	26/06/2017	530	8	66.3	*I.D.*	430	87	4.94	*I.D.*	
	12/09/2017	500	38	13.2	**80%**	330	62	5.32	-8%	
	11/10/2017	530	46	11.5	**83%**	360	69	5.22	2%	
	15/01/2018	970	68	14.3	-24%	690	42	16.43	-215%	
	19/06/2018	2100	57	36.8	-158%	1200	66	18.18	-11%	
	17/07/2018	2100	69	30.4	**17%**	1300	65	20.00	-10%	
	14/08/2018	1900	72	26.4	**13%**	1100	63	17.46	13%	**Yes (CL:SO4)**
	12/09/2018	2000	89	22.5	**15%**	1300	71	18.31	-5%	**Yes (CL:SO4)**
	17/10/2018	2700	130	20.8	8%	1500	92	16.30	11%	
	1/11/2018	3100	130	23.8	-15%	1800	100	18.00	-10%	
	8/01/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	9/04/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	14/08/2019	3300	820	4.02	**81%**	1900	270	7.04	**57%**	
	16/09/2019	4700	960	4.9	**76%**	2600	330	7.88	**52%**	**Yes (Both)**
	24/10/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
DUSW5B (White Lake)	26/06/2017	100000	8300	12.0	*I.D.*	53000	1700	31.176	*I.D.*	
	11/09/2017	3200	390	8.2	**32%**	1800	130	13.846	**56%**	
	11/10/2017	44000	5200	8.5	**30%**	23000	1400	16.429	**47%**	**Yes (Both)**
	15/01/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	19/06/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	17/07/2018	100000	7000	14.3	-69%	59000	1600	36.88	-124%	
	17/10/2018	120000	9700	12.4	**13%**	65000	2000	32.50	**12%**	
	1/11/2018	170000	9400	18.1	**-27%**	100000	1200	83.33	**-126%**	

Sample Point	Sample Date	CL- (mg/L)	SO4 (mg/L)	CL:SO4 (ratio)	% Red.	Na (mg/L)	Ca (mg/L)	Na:Ca (ratio)	% Red.	Repeated ratio exceedance?
	8/01/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	9/04/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	14/08/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	16/09/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	24/10/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
GROUNDWATER-FED ANALOGUE / REFERENCE SITES (NOT ON PIT 23 FLOW PATH)										
DUSW22 (Shaw's Gully)	26/06/2017	*DNS*	*DNS*	*DNS*	*DNS*	*DNS*	*DNS*	*DNS*	*DNS*	*N/A*
	23/08/2017	190	35	5.4	*I.D.*	110	14	7.86	*I.D.*	
	11/10/2017	1700	180	9.4	-74%	840	91	9.23	-17%	
	15/01/2018	470	17	27.6	-193%	240	27	8.89	4%	
	19/06/2018	3600	410	8.8	68%	1800	160	11.25	-27%	
	17/07/2018	3200	330	9.7	-10%	1700	140	12.14	-8%	
	17/10/2018	2800	280	10.0	-3%	1400	120	11.67	4%	
	8/01/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	9/04/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	2/07/2019	2100	340	6.18	**38%**	1400	120	11.67	0%	
	1/08/2019	970	160	6.06	**39%**	550	44	12.5	-&%	**Yes (Cl:SO4)**
	24/10/2019	740	140	5.29	**14%**	410	34	12.06	-3%	**Yes (Cl:SO4)**
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	15/06/2020	3200	360	8.9	-68%	1700	150	11.3	6%	
DUSW14 (Costello's Creek)	26/06/2017	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	13/09/2017	190	34	5.59	*I.D.*	130	13	10.00	*I.D.*	
	11/10/2017	1400	260	5.38	4%	850	49	17.35	-73%	
	15/01/2018	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	19/06/2018	1800	310	5.81	-8%	1100	67	16.42	5%	
	17/07/2018	1800	330	5.45	6%	1200	58	20.69	-26%	
	17/10/2018	1600	280	5.71	-5%	1000	50	20.00	3%	
	8/01/2019	2400	350	6.86	-20%	1400	50	28.00	-40%	
	9/04/2019	2200	240	9.17	-34%	1300	49	26.53	5%	
	2/07/2019	2200	360	6.11	**33%**	1300	74	17.57	**34%**	
	1/08/2019	1900	340	5.59	**39%**	1200	44	27.27	**-3%**	**Yes (Cl:SO4)**
	24/10/2019	1800	290	6.21	-2%	1200	46	26.09	-48%	
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	1/04/2020	2200	240	9.2	-0.5%	1300	45	28.9	-0.1%	
DUSW45 (Brooksby's Swamp)	8/01/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	9/04/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	14/08/2019	5900	2100	2.81	*I.D.*	3400	730	4.66	*I.D.*	
	24/10/2019	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*
	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*	*N/A*

NOTES

- Calculated ratios in green represent values that increase following an initial “>10%” reduction (i.e. no consecutive >10% reduction)
- Calculated ratios in red represent values above the “>10%” reduction threshold (initial identified exceedance).
- Calculated ratios in red highlight represent a confirmed “>10%” reduction in consecutive or follow-up samples
- I.D. = insufficient data to allow calculation of ionic ratio (only one data-point available)
- DUSW45 (Brooksby’s Swamp) is not required to be monitored under the EMP however samples are collected at this location to aid in understanding of seasonal fluctuations in water quality across the region.

4.2.2.2 Radionuclide concentrations

Section 7.9.1 of the EMP prescribes the locations for surface water monitoring and the monitoring frequency, as summarised in Table 8. These locations are subject to sampling and laboratory analysis for radionuclides (Thorium, Uranium, Radium-226, Radium-228 and Uranium-238).

Radionuclide monitoring results for the reporting period are presented in Figure 24 and Figure 25. The corresponding monitoring data for radionuclides in surface water is provided in **Appendix A**. Note that for concentrations reported as below the laboratory limit of reporting / limit of detection (as indicated by "<") the numerical value is treated as a negative concentration to enable graphical representation in order to demonstrate that sampling for that analyte was undertaken in compliance with the EMP.

The monitoring results for radionuclides in surface water obtained during the reporting period confirm nil exceedances of any precautionary or upper trigger. Further, no off-site discharges from the confines of Pit 23 or immediate area occurred.

Note that long-term data for these surface water points is available and the data presented in Figure 24 and Figure 25 represents all current data for these points.

Table 8: Monitoring program – radionuclide concentrations in surface water

Surface water monitoring locations	Frequency
DUSW14 – Costello's Creek DUSW5B – White Lake DUSW24 – McGlashin Swamp DUSW20 – North-west drainage line DUSW22 – Southern Drainage Line	• Quarterly; or • During or following an off-site discharge event (creek and drainage lines only)

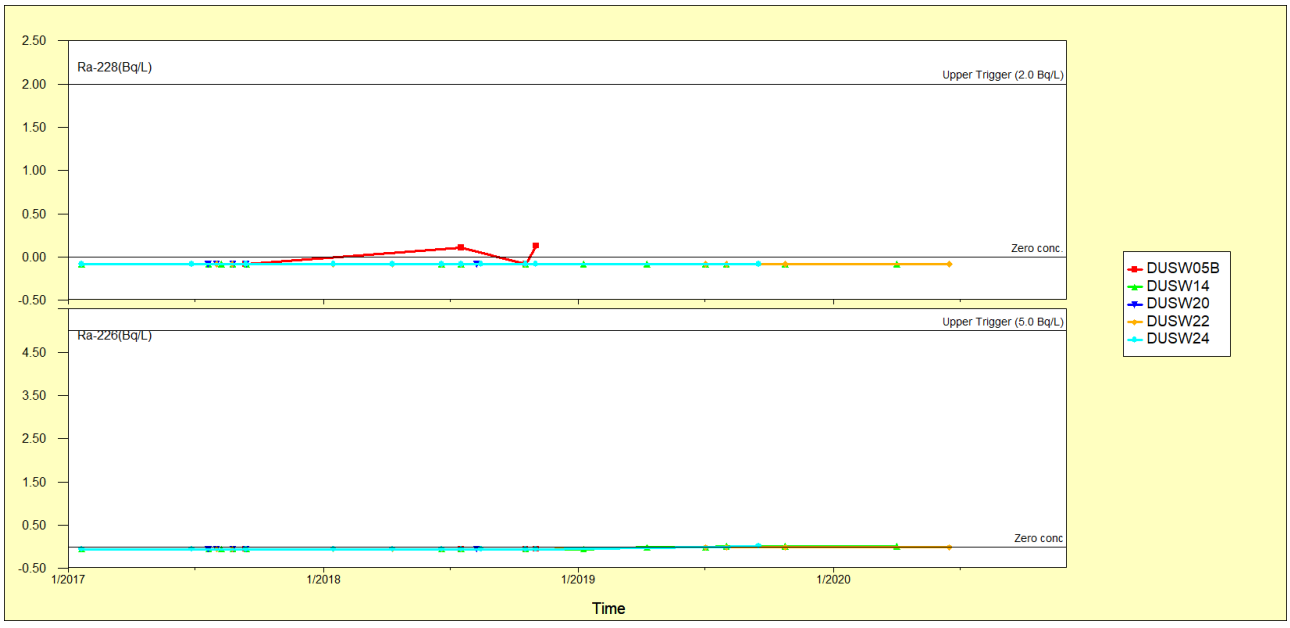


Figure 24: Ra-226 and Ra-228 in surface water

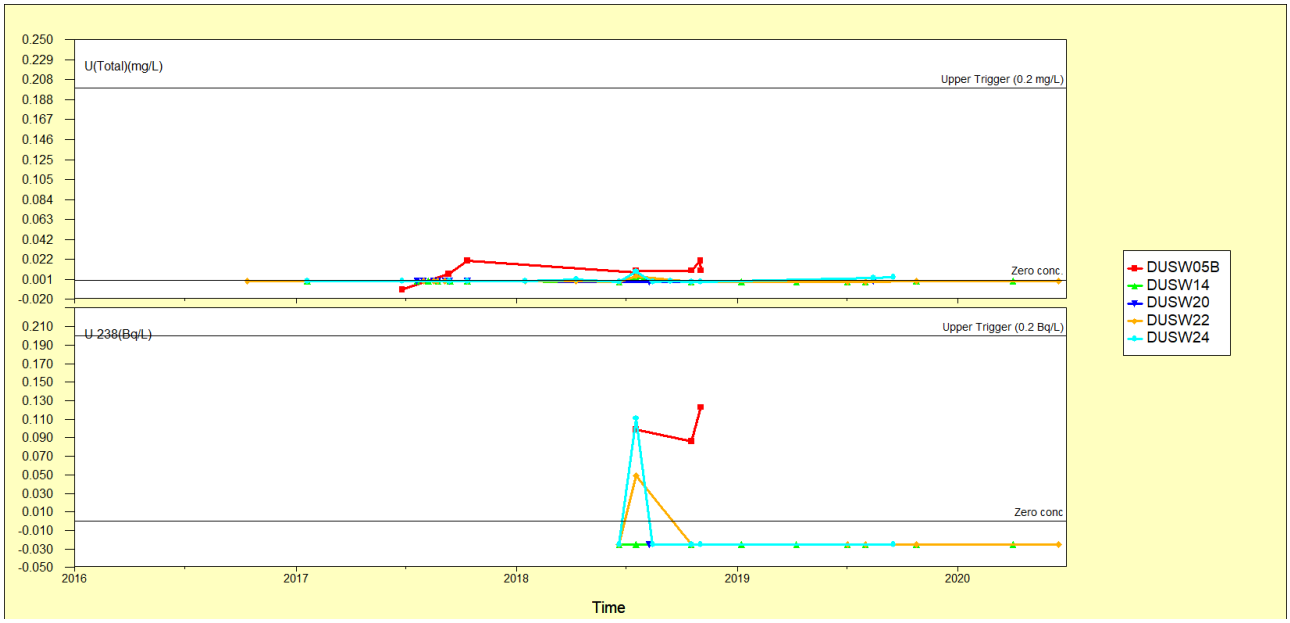


Figure 25: Uranium and U-238 in surface water

4.2.2.3 Other analytes

In accordance with Section 8.7.2 of the EMP, quarterly samples (if available) obtained from the monitoring locations are subjected to in-field and laboratory analysis for a suite of target parameters.

As discussed in Sections 4.2.1 and 4.2.2.1 there have been no runoff or discharges from site throughout the reporting period and no instances where ionic balance ratios were triggered at surface water monitoring locations that may be influenced from groundwater discharge.

4.3 Noise

In accordance with Section 10.1.4 of the endorsed EMP, noise level measurements will be undertaken in the unlikely event that noise complaints are received.

No noise related complaints were received during the reporting period, and hence no noise levels measurements were undertaken.

4.4 PM_{10} concentrations in air

In accordance with Sections 9.6 and 10.1.4 of the endorsed EMP, the concentration of PM_{10} dust in air at the Lyon's and Chadwick's residences is measured using high volume ('hi-vol') air samplers on a one-in-six day monitoring cycle. The location of these hi-vol air samplers relative to Pit 23 are shown in Figure 27.

12-month rolling results for PM_{10} compared to daily rainfall are shown in Figure 26. Results adhere to the expected year-on-year pattern of lower airborne PM_{10} concentrations in winter months.

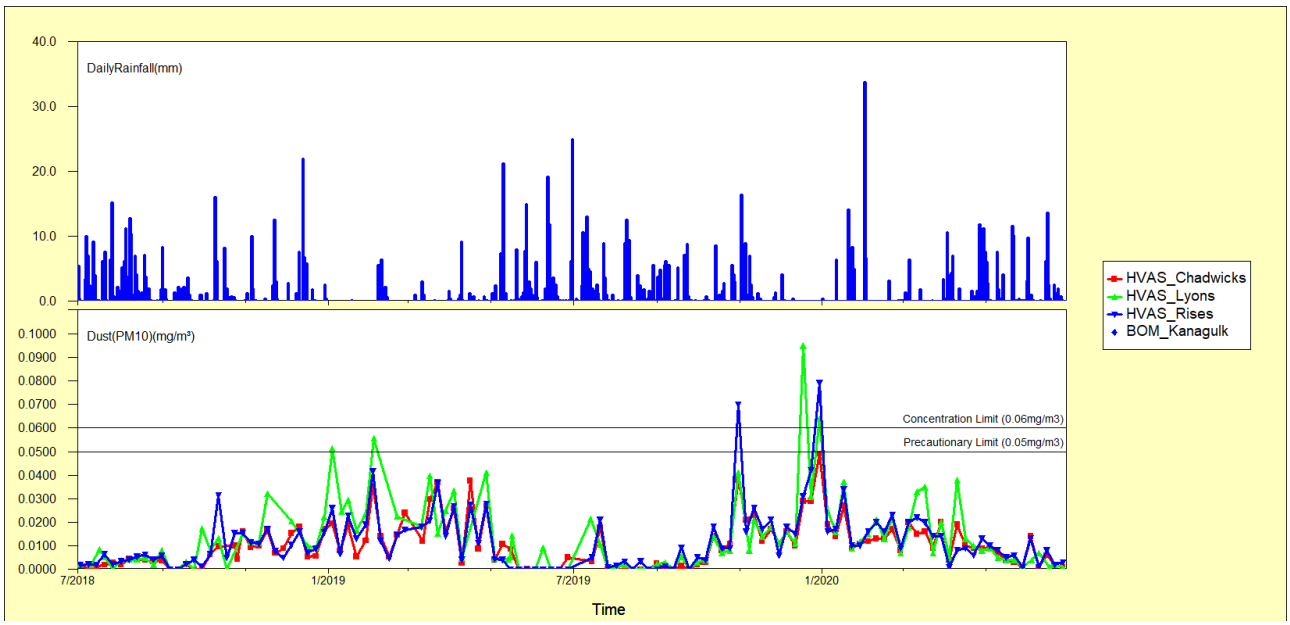
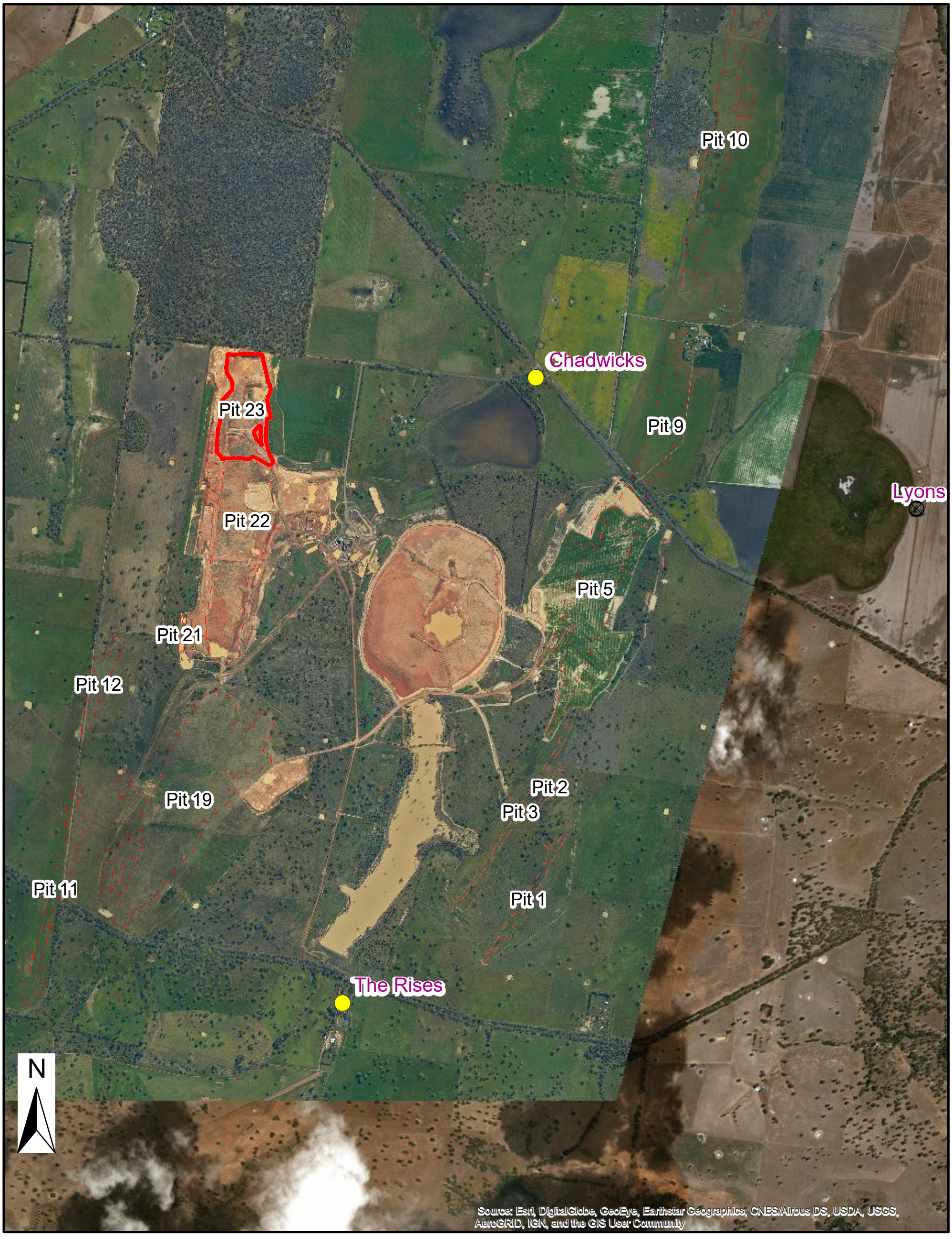


Figure 26: PM_{10} dust concentrations at neighbouring residences vs. daily rainfall

No results above the PM_{10} concentration limit (0.06 mg/m^3) were recorded at either the Lyons or Chadwicks residences during the H1 2020 reporting period.



Legend

- PM10 monitoring
- Pit 23 crest
- Pit Crests

0 500 1,000 2,000 3,000 4,000 Meters

AIR QUALITY MONITORING LOCATIONS (PM10 - Hi Vols)

ILUKA

L:\Maps\2018\Unregistered\Douglas\mxd\Pit 23 Annual Report 2017 DRAWN: N. Travers DATE:26/06/2018

FIGURE: 27

4.5 Radiation monitoring – other

It is a requirement of the Iluka Radiation Management Licence 300042022 that works relating to the minerals sands by-product disposal into Pit 23 are conducted in accordance with a Radiation Management Plan (RMP) and a Radioactive Waste Management Plan (RWMP), including the monitoring programs under those plans, to ensure that radiation doses are below the prescribed limit.

Radiation monitoring relevant to this performance report includes:

- Radon concentrations in air;
- Gross alpha activity concentration of airborne dust; and
- Radionuclide concentrations in groundwater and surface water.

Results for radon concentrations in air and gross alpha activity concentration of airborne dust are detailed below. Results for radionuclides in groundwater and surface water are detailed in Sections 4.1.3.2 and 4.2.2.2, respectively.

4.5.1 Radon concentrations in air

Monitoring of radon concentrations in air is undertaken at four locations within and immediately adjacent to Pit 23 and at two residences east of Pit 23 (Chadwick's) and south of Pit 23 (Rises). Radon monitoring is undertaken using Landauer "Radtrak2" radon/thoron track etch detectors and the newer Rapidos High Sensitivity ("Rapidos HS") radon detectors (Figure 30).

The Rapidos HS detectors were implemented in Q4 2018 for side-by-side comparison with the existing Radtrak2 detectors, with initial results from the Rapidos HS detectors indicating that airborne radon levels are significantly lower than those indicated by the less sensitive Radtrak2 detectors, and therefore provide a more accurate measure of actual airborne radon levels in the vicinity of Pit 23 and at local residences. This side-by-side comparison will continue through 2020 to allow for meaningful statistical comparison of radon data between units over time.

No high-sensitivity thoron detectors are available and thoron monitoring will continue using the Radtrack2 detectors.

Radon and Thoron monitoring results for the reporting period are presented in Table 9 and Table 10, and also in Figure 29 and Figure 30.

All measured radon and thoron levels in the H1 2020 reporting period were well below the reportable levels irrespective of the detectors used.

Figure 28: Radon and thoron detectors

Table 9: Radon concentrations within Pit 23 for H1 2020

Location	Radon concentration in air (Bq/m³)					Rapidos High Sensitivity (Bq/m³)			
	Reportable level	Jul 19 - Sep 19	Oct 19 - Dec 19	Jan 20 - Mar 20	Apr 20 - Jun 20	Jul 19 - Sep 19	Oct 19 - Dec 19	Jan 20 - Mar 20	Apr 20 - Jun 20
Pit 23 East	**100**	<15	<15	16 ± 16	<15	<7	11 ± 7	<4	<3
Pit 23 North	**100**	<15	<15	<15	<15	<7	<8	4 ± 3	<3
Pit 23 West	**100**	<15	<20	<15	<15	<7	<8	<4	<3
Pit 23 South	**100**	<15	<15	<20	<15	<7	<7	<3	<3
Chadwick's	**100**	<15	<15	<15	<15	<7	8 ± 7	6 ± 3	<3
Rises	**100**	<15	<15	<15	<15	<7	<7	<4	<3

Table 10: Thoron concentrations within Pit 23 for H1 2020

Location	Thoron concentration in air (Bq/m³) *Radtrak2 Detectors*								
	Reportable level	Jun18 To Sep18	Oct18 To Jan19	Jan19 To Apr19	Apr19 To Jul19	Jul19 To Sep19	Oct19 To Dec19	Jan20 To Mar20	Apr20 To Jun20
Pit 23 East	**1000**	77 +/- 32	40 +/- 20	67 ± 32	34 ± 20	58 ± 26	100 ± 36	<20	<20
Pit 23 North	**1000**	<40	<20	42 ± 28	<30	<30	<40	23 ± 12	<20
Pit 23 West	**1000**	<40	132 +/- 32	119 ± 32	68 ± 22	66 ± 26	83 ± 40	58 ± 16	<20
Pit 23 South	**1000**	92 +/- 34	162 +/- 28	-	138 ± 30	115 ± 30	133 ± 38	81 ± 18	<20
Chadwick's	**1000**	<40	21 +/- 16	<30	<30	<30	<40	<20	<20
Rises	**1000**	<40	<20	36 ± 28	<30	<30	<40	<20	<20

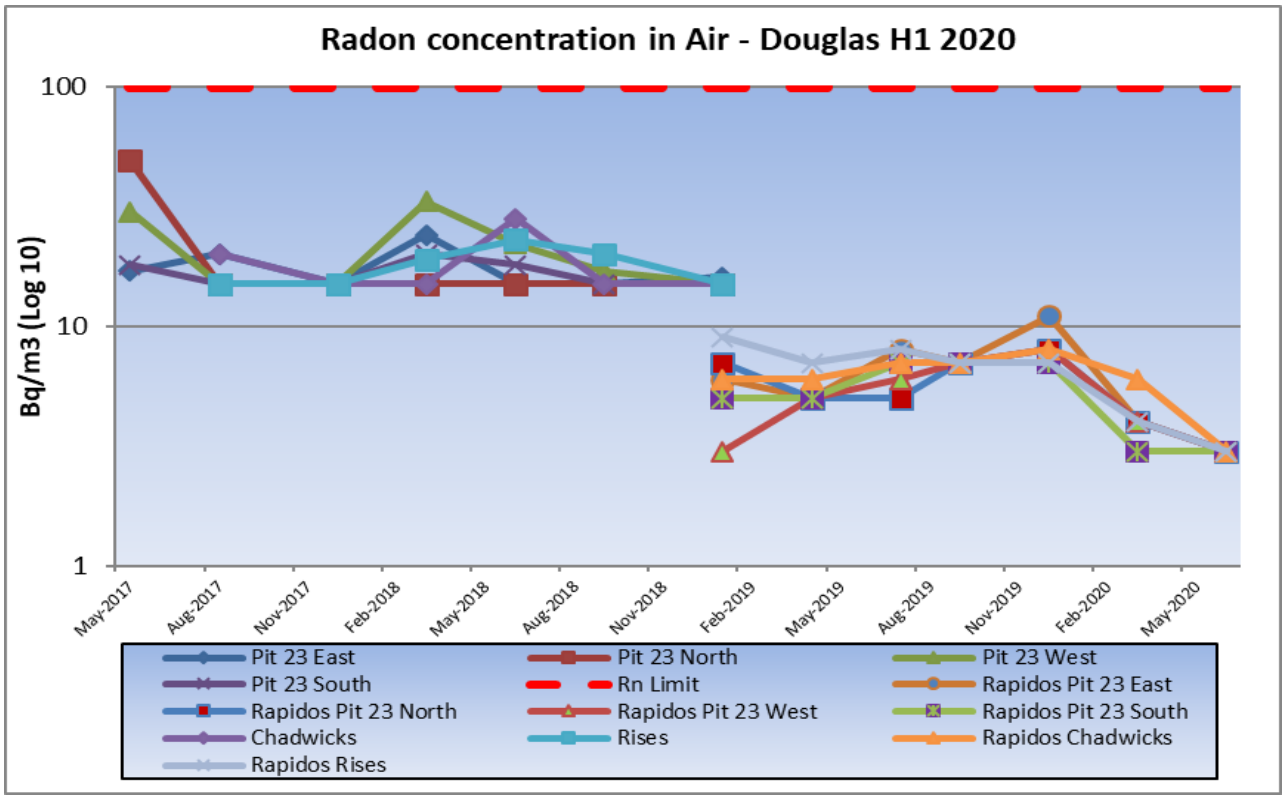


Figure 29: Radon concentration in air, H1 2020

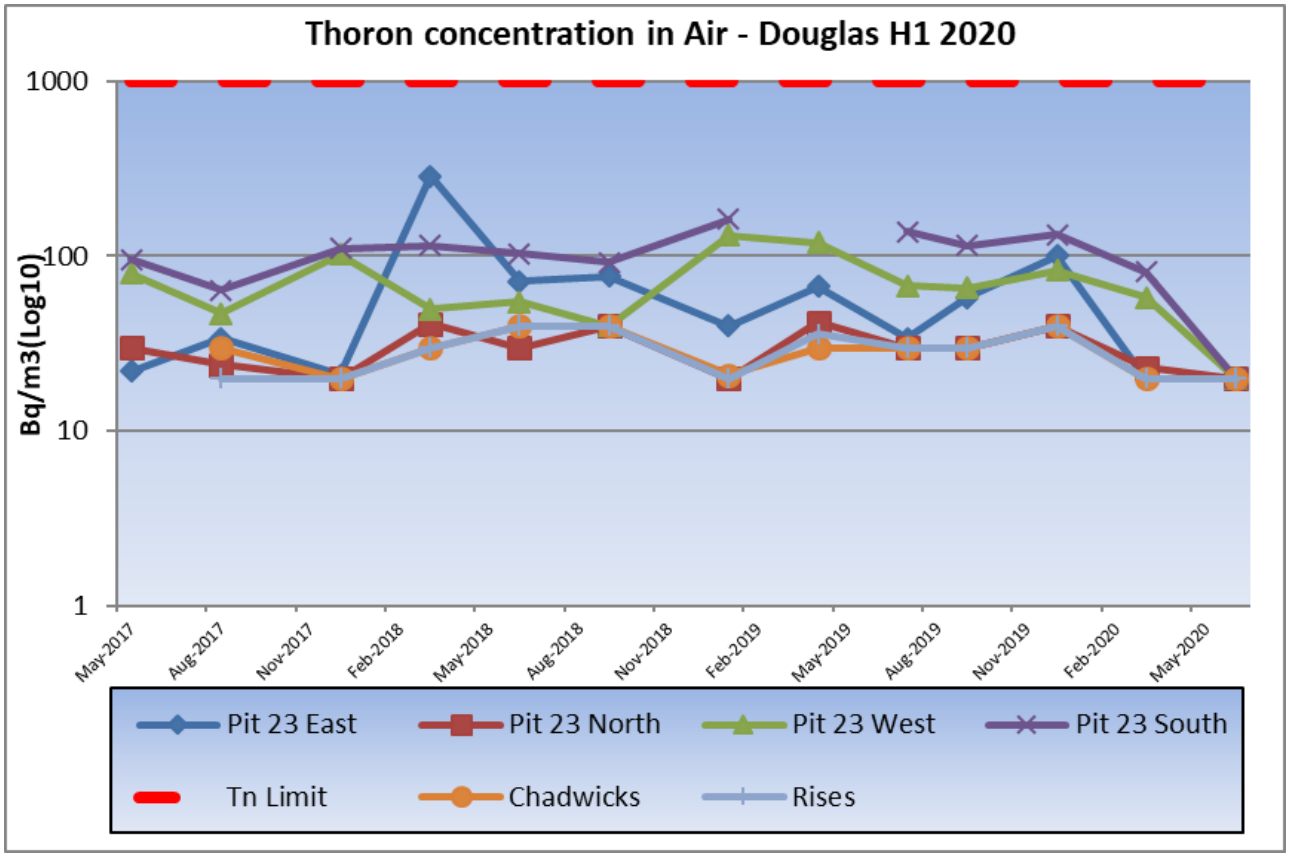


Figure 30: Thoron concentration in air, H1 2020

4.5.2 Gross alpha concentrations in airborne dust

As noted in Section 4.4, sampling for airborne particulates in PM_{10} dust is conducted using high volume (hi-vol) air samplers located at the Chadwick's, Lyons and Rises residences (see Figure 27).

On a quarterly basis hi-vol units are run for a continuous 96 hour period for purposes of monitoring gross alpha concentration in air, which represents a total air sample volume of approximately 6,000 m^3. The filters are weighed to determine the total dust loading in mg/m^3 and then analysed for gross alpha activity expressed as millibequerels/m^3 (mBq/m^3).

The results for the monitoring period are in line with historical values and are shown in Table 11 and Figure 31.

Table 11: Gross Alpha radiation in PM_{10} dust

Location	Run Date	Sample / Filter No.	Air Volume (m^3)	Activity Conc (mBq/m^3)
Chadwick's	22/02/2020	031219GF25	5892	0.120
Lyon's	22/02/2020	031219GF26	5929	0.161
Rises	22/02/2020	031219GF27	5913	0.173
Chadwick's	21/06/2020	031219GF90	6012	0.048
Lyon's	21/06/2020	031219GF91	6165	<0.063
Rises	21/06/2020	031219GF88	6059	0.038

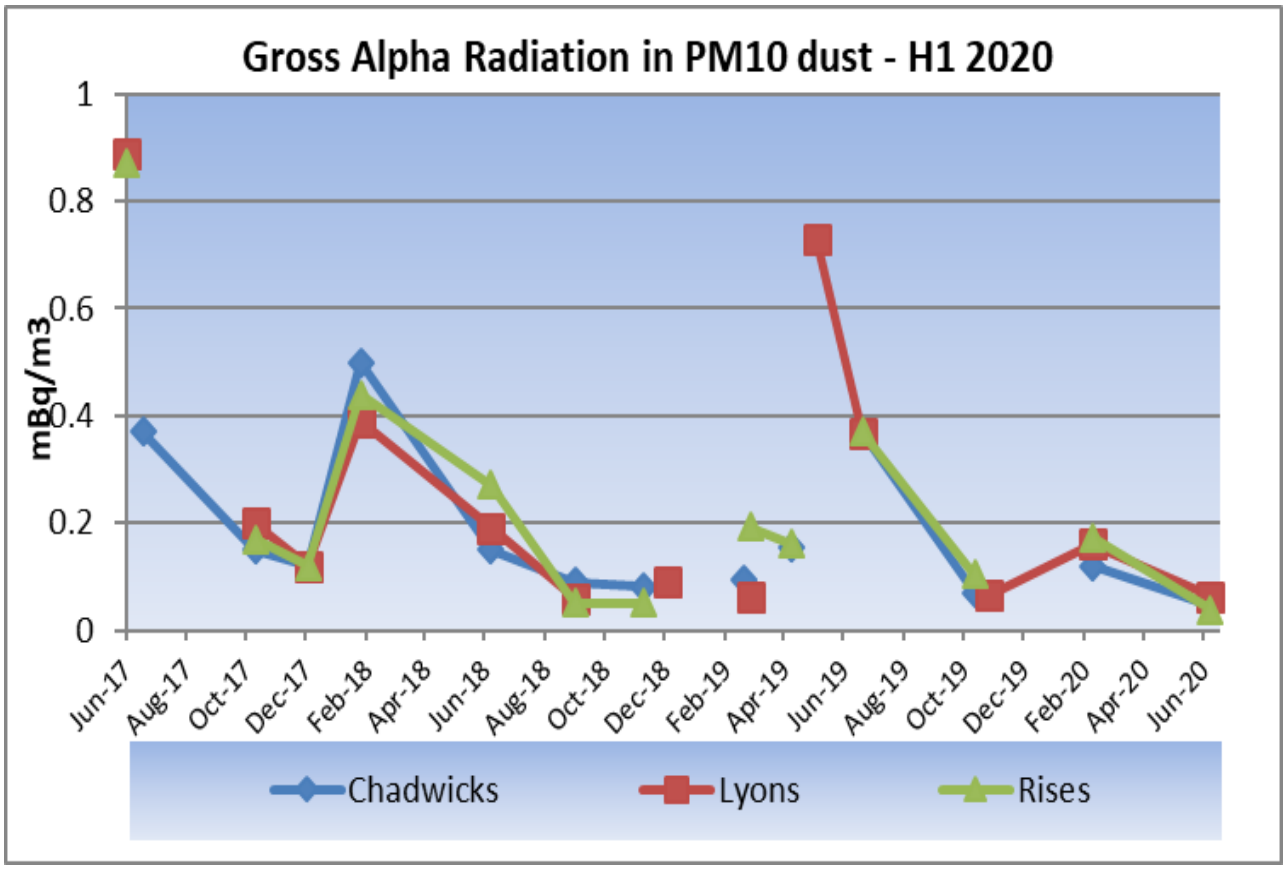


Figure 31: Gross Alpha Radiation in PM10 Dust – H1 2020

5 Management Actions

5.1 Monitoring bore audits

In accordance with Section 7.6.2 of the EMP, audits of the monitoring bore network are undertaken on monthly or bi-annually and outcomes reported annually within this EMP and Rehabilitation Performance Report.

Bore integrity (e.g. physical condition, blocked/dry or poor yield) is assessed as part of the groundwater monitoring program.

As per Section 4.1.1 of this report, all bores are in serviceable condition with the exception of BW36 which is blocked and was replaced with BW36A in October 2019.

5.2 Groundwater flow paths from Pit 23

In accordance with Section 7.9.1 of the EMP, groundwater levels measured at bores WRK300 – WRK304 inclusive, GW1 to GW7 inclusive, GW9, BW36A and BW45B are used to construct groundwater contours in the area of Pit 23 and surrounds and infer groundwater flow paths from Pit 23, with these levels and flow paths compared with the groundwater levels and flow paths predicted by the hydrogeological model.

Groundwater level contours are provided in Figure 32 (EMM 2019; EMM 2020). This compares the 2019 modelled contours per EMM (2019), and interpreted groundwater contours as at June 2020 including standing water level data for new monitoring bores installed in 2018 and 2019. From these June 2020 contours it is confirmed that:

- groundwater contours and flow-paths are consistent with the 2019 modelled contours and prior year contours; and
- groundwater flow from Pit 23 is still to the north and north-west.

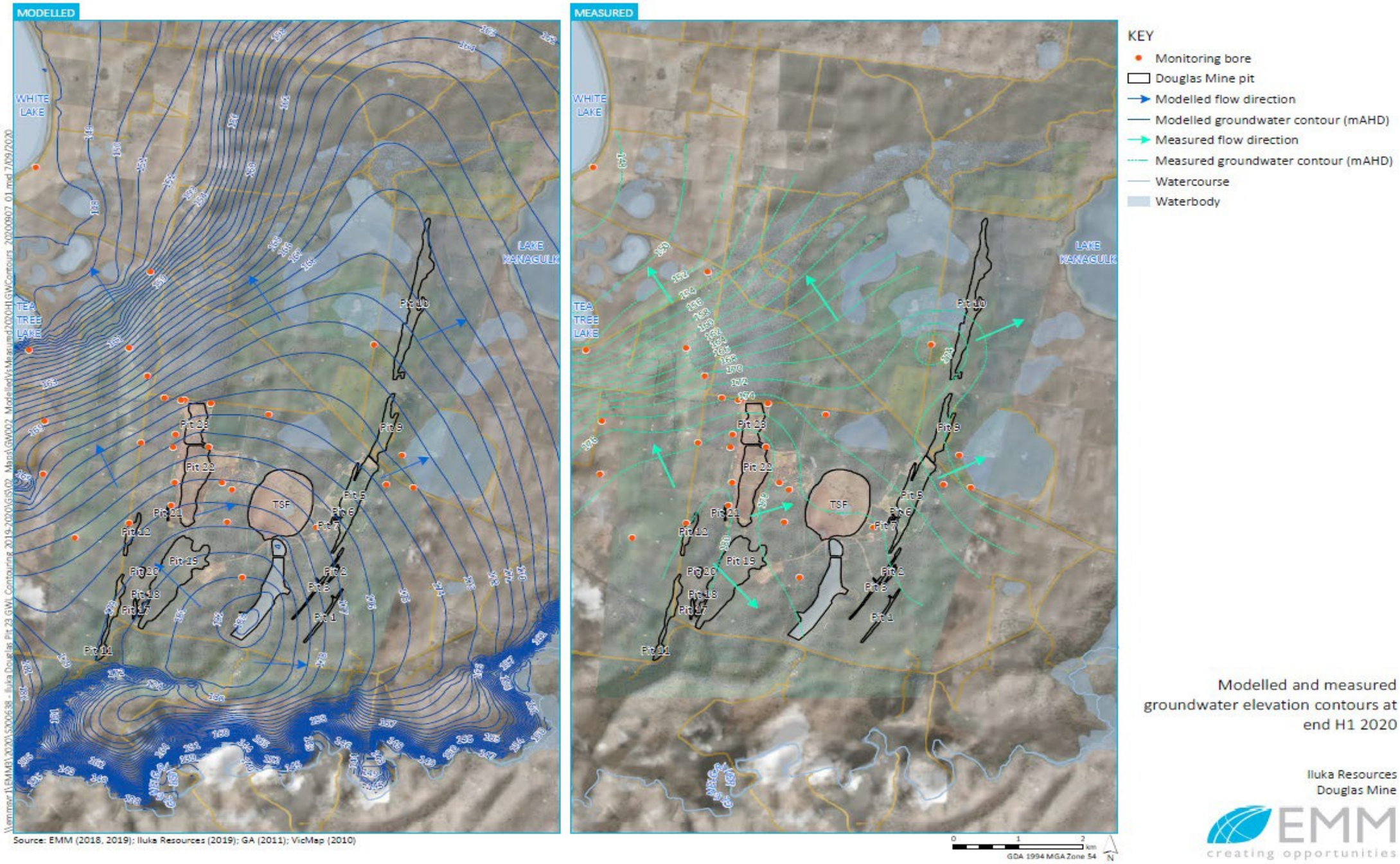


Figure 32: 2019 vs 2020 interpreted groundwater contours (EMM 2019; EMM 2020)

5.3 Groundwater model review and recalibration

Sections 7.10 and 8.7.2 of the endorsed EMP outlines the circumstances that will trigger a review and recalibration of the hydrogeological model.

An update of the Douglas Mine (inclusive Pit 23) hydrogeological model was commissioned through EMM Consulting in December 2018 in response to the potential groundwater seepage impacts identified during surface water monitoring at McGlashin's Swamp in the 2017 reporting period. This also satisfied the commitment for a review of the model within two (2) years of the Planning Permit being granted.

Whilst complimentary seepage impact investigation (EMM, 2018) determined that the observed exceedances were associated with natural phenomena and un-related to Pit 23, a review and update of the groundwater model was required in accordance with the Pit 23 EMP.

Preliminary findings of the 2019 groundwater model update were presented to the Responsible Authority and Pit 23 Technical Reference Group (TRG) by Iluka and EMM Consulting personnel at a meeting held at the HRCC Council Chambers on 23rd May 2019. The final modelling report was completed and provided to the Responsible Authority in Q3 2019.

This modelling will be used to validate existing model predictions on the groundwater flow path and groundwater flow rates from the Pit 23 facility, and to inform updates to groundwater-related content with the next iteration of the Pit 23 Environmental Management Plan (EMP, Rev 5).

5.4 Maximum surface level of disposed materials in Pit 23

In accordance with Section 7.9.1 of the EMP, the maximum elevation of the upper surface of materials disposed of at the end of the reporting period must be reported.

The Pit 23 void consists of an upper and lower disposal area; no wastes were disposed into Pit 23 during the H1 2020 reporting period.

Accordingly, the survey undertaken on the 8th of December 2017 confirming the upper surface of materials deposited in Pit 23 (i.e. the elevation of capped material in the upper disposal area) remains unchanged at 193 mAHD.

5.5 Non-compliances

There were no non-compliances for the H1 2020 reporting period.

5.6 Comments and complaints received

No complaints or comments were received during the H1 2020 reporting period.

5.7 H1 2020 Completed Actions

There were no actions required to be completed during the reporting period.

5.8 H2 2020 Proposed Actions

The following actions are planned for H2 2020:

- submission of the updated Pit 23 Incoming Waste Monitoring Plan (IWMP) and Environmental Management Plan (EMP) as required by the default two-year review periods stipulated within these plans. The updated EMP will include outcomes of the updated groundwater modelling completed by EMM in 2019;

- annual review of the Pit 23 Risk Analysis and Response Plan (RARP) risk register as per Section 6 of the EMP; and
- Installation of groundwater monitoring bore GW04A to be located between GW04 and BW36A as previously agreed with Auditor.

5.9 Other matters

5.9.1 Annual geotechnical audit

In accordance with Section 10.5.2 and 10.5.3 of the EMP, geotechnical audits are completed on an annual basis with the last audit completed in December 2019 (AMC Consultants, 2019).

The next audit is scheduled for November 2020.

5.9.2 Pit 23 Risk Register annual review

Per Section 6 of the EMP, the Pit 23 Risk Analysis and Response Plan (RARP) was developed by AECOM Australia Pty Ltd who recommended that the Pit 23 Risk Register (contained as Appendix A of the RARP) be reviewed annually at the time when EMP and Rehabilitation Performance Reports are developed.

Reviews of the Pit 23 RARP risk register were conducted in December 2018 and presented in the prior 2018 EMP and Rehabilitation Performance Report submitted to the Responsible Authority on 3rd June 2019.

A review of the Pit 23 RARP risk register was undertaken in April 2019 as part of the review and update of the Environmental Management Plan (EMP) and is scheduled to be reviewed in H2 2020.

6 References

ANZECC/ARMCANZ (2000) *National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Australian and New Zealand Environment and Conservation Council and Agricultural and Resource Management Council of Australia and New Zealand, Canberra, Australian Capital Territory, October 2000.

CDM Smith (2014) Douglas Mine Site Hydrogeological Modelling. Completed on behalf of Iluka Resources, November 2014

CDM Smith (2015) Douglas Mine – Particle Tracking of Seepage Water. Completed on behalf of Iluka Resources, February 2015

EMM (2018) Pit 23 Groundwater – Assessment of Seepage Indicator Exceedances, November 2018 (Report S180265, Rev 2 Final), issued for Iluka Resources Ltd

EMM (2019) *Groundwater Model Update and Predictive Scenario Modelling – Douglas Mine*. Prepared by EMM Consulting for Iluka Resources Ltd, September 2019.

EES (2016) *Independent Desktop Review For The Continuation Of Mineral By-Products Disposal Into Pit 23 At Iluka's Douglas Mine Site, Northwest Victoria No. 215071v2 dated April 2016.* Prepared by Environmental Earth Sciences, Melbourne, Victoria. (TRIM T18729).

AMC Consultants (2019) Douglas Mine Pit 23 Geotechnical Audit & Risk Assessment, 10th December 2019.

7 Appendices

Appendix A: Monitoring Data (Lab) – Radiation – Surface Water

Surface water ID	Date	Thorium (mg/L)	Uranium (mg/L)	U238 (Bq/L)	Ra226 (Bq/L)	Ra228 (Bq/L)
Precautionary trigger		*n/a*	*0.17*	*0.17*	*4.3*	*1.7*
Upper trigger		*n/a*	*0.2*	*0.2*	*5*	*2*
Q1 2020						
DUSW05B	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW14	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW20	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW22	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW24	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW45	7/01/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
Q2 2020						
DUSW05B	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW05B	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW14	1/04/2020	0.0045	<0.001	<0.025	<0.01	<0.08
DUSW20	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW20	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW22	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW22	15/06/2020	<0.002	<0.001	<0.025	<0.01	<0.08
DUSW24	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW24	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW45	1/04/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*
DUSW45	15/06/2020	*DRY*	*DRY*	*DRY*	*DRY*	*DRY*

Appendix B: Monitoring Data (Lab) – Groundwater

Variable	Unit	Sample Point	Date	Result
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW07	9/01/2020	62
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW05	13/01/2020	480
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW28A	13/01/2020	400
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	84
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW03	14/01/2020	160
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW02	14/01/2020	31
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB2	14/01/2020	31
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB6	14/01/2020	17
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW01	15/01/2020	26
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW45B	15/01/2020	8
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW05	15/01/2020	44
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW04	15/01/2020	32
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW36A	16/01/2020	310
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK300	16/01/2020	260
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	20/01/2020	170
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK302	20/01/2020	95
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK304	22/01/2020	42
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW06	22/01/2020	200
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK301	22/01/2020	360
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK303	23/01/2020	40
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB6	20/02/2020	18
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW04	20/02/2020	27
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW05	20/02/2020	43
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW01	20/02/2020	25
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW06	24/02/2020	180
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	25/02/2020	170
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK301	25/02/2020	370
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW07	26/02/2020	91
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW45B	26/02/2020	8
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW28A	26/02/2020	410
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	58
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW02	3/03/2020	51
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK304	5/03/2020	45
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	5/05/2020	150
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW07	9/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW05	13/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW03	14/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW02	14/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0

Variable	Unit	Sample Point	Date	Result
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW01	15/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW05	15/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW04	15/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	20/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW06	22/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW04	20/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW05	20/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW01	20/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW06	24/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	25/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW07	26/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW02	3/03/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_PZ_GW08	5/05/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW07	9/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW05	13/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW03	14/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW02	14/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW01	15/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW05	15/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW04	15/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW08	20/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW06	22/01/2020	0

Variable	Unit	Sample Point	Date	Result
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW04	20/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW05	20/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW01	20/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW06	24/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW08	25/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW07	26/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW02	3/03/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0
Alkalinity (Hydroxide) as CaCO3	mg/L	DG_A_I_PZ_GW08	5/05/2020	0
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW07	9/01/2020	62
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW05	13/01/2020	480
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW28A	13/01/2020	400
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	84
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW03	14/01/2020	160
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW02	14/01/2020	31
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_IWB2	14/01/2020	31
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_IWB6	14/01/2020	17
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW01	15/01/2020	26
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW45B	15/01/2020	8
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW05	15/01/2020	44
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW04	15/01/2020	32
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW36A	16/01/2020	310
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK300	16/01/2020	260
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW08	20/01/2020	170
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK302	20/01/2020	95
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK304	22/01/2020	42
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW06	22/01/2020	200
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK301	22/01/2020	360
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK303	23/01/2020	40
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_IWB6	20/02/2020	18
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW04	20/02/2020	27
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW05	20/02/2020	43
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW01	20/02/2020	25
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW06	24/02/2020	180
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW08	25/02/2020	170
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK301	25/02/2020	370
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW07	26/02/2020	91

Variable	Unit	Sample Point	Date	Result
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW45B	26/02/2020	8
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW28A	26/02/2020	410
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	58
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW02	3/03/2020	51
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_WRK304	5/03/2020	45
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_PZ_GW08	5/05/2020	150
Aluminium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.07
Aluminium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.22
Aluminium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.02
Aluminium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.1
Aluminium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.02
Aluminium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.11
Aluminium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.14
Aluminium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.29
Aluminium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.57
Aluminium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	4.7
Aluminium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.02
Aluminium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.05
Aluminium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.06
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.19
Aluminium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.01
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.24
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.05
Aluminium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.07
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.58
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.04
Aluminium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.1
Aluminium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.03
Aluminium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.02
Aluminium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.93
Aluminium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.1
Aluminium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.01*
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.21
Aluminium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.09
Aluminium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	4.8
Aluminium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.01*
Aluminium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.08
Aluminium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.03
Aluminium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.05
Aluminium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.01*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.074
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.12
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.19
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	3.4

Variable	Unit	Sample Point	Date	Result
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.022
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.06
Ammonia Nitrogen	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.013
Ammonia Nitrogen	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.011
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.007
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.054
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.029
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.009
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.016
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.006
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.12
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.12
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.1
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.12
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.07
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.14
Ammonia Nitrogen	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.052
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	3.1
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.02*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.01*
Ammonia Nitrogen	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.02*
Anions (Total)	meq/L	DG_A_I_PZ_GW07	9/01/2020	180
Anions (Total)	meq/L	DG_A_I_PZ_BW05	13/01/2020	250
Anions (Total)	meq/L	DG_A_I_PZ_BW28A	13/01/2020	220
Anions (Total)	meq/L	DG_A_I_PZ_BW53/Puls	13/01/2020	30
Anions (Total)	meq/L	DG_A_I_PZ_GW03	14/01/2020	110
Anions (Total)	meq/L	DG_A_I_PZ_GW02	14/01/2020	68
Anions (Total)	meq/L	DG_A_I_PZ_IWB2	14/01/2020	37
Anions (Total)	meq/L	DG_A_I_PZ_IWB6	14/01/2020	16
Anions (Total)	meq/L	DG_A_I_PZ_GW01	15/01/2020	110
Anions (Total)	meq/L	DG_A_I_PZ_BW45B	15/01/2020	160
Anions (Total)	meq/L	DG_A_I_PZ_GW05	15/01/2020	88
Anions (Total)	meq/L	DG_A_I_PZ_GW04	15/01/2020	92
Anions (Total)	meq/L	DG_A_I_PZ_BW36A	16/01/2020	43
Anions (Total)	meq/L	DG_A_I_PZ_WRK300	16/01/2020	59

Variable	Unit	Sample Point	Date	Result
Anions (Total)	meq/L	DG_A_I_PZ_GW08	20/01/2020	210
Anions (Total)	meq/L	DG_A_I_PZ_WRK302	20/01/2020	210
Anions (Total)	meq/L	DG_A_I_PZ_WRK304	22/01/2020	86
Anions (Total)	meq/L	DG_A_I_PZ_GW06	22/01/2020	210
Anions (Total)	meq/L	DG_A_I_PZ_WRK301	22/01/2020	110
Anions (Total)	meq/L	DG_A_I_PZ_WRK303	23/01/2020	89
Anions (Total)	meq/L	DG_A_I_PZ_IWB6	20/02/2020	15
Anions (Total)	meq/L	DG_A_I_PZ_GW04	20/02/2020	92
Anions (Total)	meq/L	DG_A_I_PZ_GW05	20/02/2020	93
Anions (Total)	meq/L	DG_A_I_PZ_GW01	20/02/2020	110
Anions (Total)	meq/L	DG_A_I_PZ_GW06	24/02/2020	220
Anions (Total)	meq/L	DG_A_I_PZ_GW08	25/02/2020	220
Anions (Total)	meq/L	DG_A_I_PZ_WRK301	25/02/2020	110
Anions (Total)	meq/L	DG_A_I_PZ_GW07	26/02/2020	180
Anions (Total)	meq/L	DG_A_I_PZ_BW45B	26/02/2020	160
Anions (Total)	meq/L	DG_A_I_PZ_BW28A	26/02/2020	220
Anions (Total)	meq/L	DG_A_I_PZ_BW53/Puls	26/02/2020	30
Anions (Total)	meq/L	DG_A_I_PZ_GW02	3/03/2020	66
Anions (Total)	meq/L	DG_A_I_PZ_WRK304	5/03/2020	85
Anions (Total)	meq/L	DG_A_I_PZ_GW08	5/05/2020	220
Arsenic (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.007
Arsenic (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.53
Arsenic (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.006
Arsenic (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.045
Arsenic (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*
Arsenic (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.001
Arsenic (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.084
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.001
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.009
Arsenic (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.003
Arsenic (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.005
Arsenic (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.006

Variable	Unit	Sample Point	Date	Result
Arsenic (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.003
Arsenic (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.004
Arsenic (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.5
Arsenic (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.007
Arsenic (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.001*
Arsenic (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.01
Arsenic (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.001
Barium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.025
Barium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.029
Barium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.074
Barium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.046
Barium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.033
Barium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.039
Barium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.003
Barium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.023
Barium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.053
Barium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.032
Barium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.019
Barium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.026
Barium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.27
Barium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.032
Barium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.006
Barium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.022
Barium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.028
Barium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.021
Barium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.01
Barium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.04
Barium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.022
Barium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.022
Barium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.016
Barium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.044
Barium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.024
Barium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.006
Barium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.013
Barium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.025
Barium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.03
Barium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.07
Barium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.043
Barium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.035
Barium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.03
Barium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.005

Variable	Unit	Sample Point	Date	Result
Boron (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	1.9
Boron (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	1.4
Boron (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.89
Boron (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.19
Boron (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.3
Boron (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.14
Boron (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.07
Boron (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.04
Boron (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.13
Boron (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.9
Boron (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	1
Boron (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.46
Boron (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.06
Boron (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.24
Boron (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	1.1
Boron (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	1.3
Boron (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.62
Boron (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	1.8
Boron (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.58
Boron (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.48
Boron (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.07
Boron (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.58
Boron (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	1.1
Boron (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.14
Boron (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	1.6
Boron (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	1.3
Boron (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.57
Boron (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	1.5
Boron (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.84
Boron (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.8
Boron (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.15
Boron (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.11
Boron (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.6
Boron (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	1.3
Cadmium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.0002*

Variable	Unit	Sample Point	Date	Result
Cadmium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.0002
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.0002*
Calcium	mg/L	DG_A_I_PZ_GW07	9/01/2020	400
Calcium	mg/L	DG_A_I_PZ_BW05	13/01/2020	240
Calcium	mg/L	DG_A_I_PZ_BW28A	13/01/2020	460
Calcium	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	29
Calcium	mg/L	DG_A_I_PZ_GW03	14/01/2020	160
Calcium	mg/L	DG_A_I_PZ_GW02	14/01/2020	19
Calcium	mg/L	DG_A_I_PZ_IWB2	14/01/2020	9.7
Calcium	mg/L	DG_A_I_PZ_IWB6	14/01/2020	7.2
Calcium	mg/L	DG_A_I_PZ_GW01	15/01/2020	92
Calcium	mg/L	DG_A_I_PZ_BW45B	15/01/2020	320
Calcium	mg/L	DG_A_I_PZ_GW05	15/01/2020	81
Calcium	mg/L	DG_A_I_PZ_GW04	15/01/2020	140
Calcium	mg/L	DG_A_I_PZ_BW36A	16/01/2020	69
Calcium	mg/L	DG_A_I_PZ_WRK300	16/01/2020	150
Calcium	mg/L	DG_A_I_PZ_GW08	20/01/2020	520
Calcium	mg/L	DG_A_I_PZ_WRK302	20/01/2020	460
Calcium	mg/L	DG_A_I_PZ_WRK304	22/01/2020	100
Calcium	mg/L	DG_A_I_PZ_GW06	22/01/2020	610
Calcium	mg/L	DG_A_I_PZ_WRK301	22/01/2020	260
Calcium	mg/L	DG_A_I_PZ_WRK303	23/01/2020	140

Variable	Unit	Sample Point	Date	Result
Calcium	mg/L	DG_A_I_PZ_IWB6	20/02/2020	6.3
Calcium	mg/L	DG_A_I_PZ_GW04	20/02/2020	130
Calcium	mg/L	DG_A_I_PZ_GW05	20/02/2020	87
Calcium	mg/L	DG_A_I_PZ_GW01	20/02/2020	73
Calcium	mg/L	DG_A_I_PZ_GW06	24/02/2020	600
Calcium	mg/L	DG_A_I_PZ_GW08	25/02/2020	540
Calcium	mg/L	DG_A_I_PZ_WRK301	25/02/2020	270
Calcium	mg/L	DG_A_I_PZ_GW07	26/02/2020	390
Calcium	mg/L	DG_A_I_PZ_BW45B	26/02/2020	300
Calcium	mg/L	DG_A_I_PZ_BW28A	26/02/2020	490
Calcium	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	31
Calcium	mg/L	DG_A_I_PZ_GW02	3/03/2020	17
Calcium	mg/L	DG_A_I_PZ_WRK304	5/03/2020	110
Calcium	mg/L	DG_A_I_PZ_GW08	5/05/2020	400
Cations (Total)	meq/L	DG_A_I_PZ_GW07	9/01/2020	180
Cations (Total)	meq/L	DG_A_I_PZ_BW05	13/01/2020	260
Cations (Total)	meq/L	DG_A_I_PZ_BW28A	13/01/2020	220
Cations (Total)	meq/L	DG_A_I_PZ_BW53/Puls	13/01/2020	29
Cations (Total)	meq/L	DG_A_I_PZ_GW03	14/01/2020	100
Cations (Total)	meq/L	DG_A_I_PZ_GW02	14/01/2020	67
Cations (Total)	meq/L	DG_A_I_PZ_IWB2	14/01/2020	37
Cations (Total)	meq/L	DG_A_I_PZ_IWB6	14/01/2020	17
Cations (Total)	meq/L	DG_A_I_PZ_GW01	15/01/2020	110
Cations (Total)	meq/L	DG_A_I_PZ_BW45B	15/01/2020	160
Cations (Total)	meq/L	DG_A_I_PZ_GW05	15/01/2020	88
Cations (Total)	meq/L	DG_A_I_PZ_GW04	15/01/2020	91
Cations (Total)	meq/L	DG_A_I_PZ_BW36A	16/01/2020	44
Cations (Total)	meq/L	DG_A_I_PZ_WRK300	16/01/2020	65
Cations (Total)	meq/L	DG_A_I_PZ_GW08	20/01/2020	220
Cations (Total)	meq/L	DG_A_I_PZ_WRK302	20/01/2020	210
Cations (Total)	meq/L	DG_A_I_PZ_WRK304	22/01/2020	88
Cations (Total)	meq/L	DG_A_I_PZ_GW06	22/01/2020	220
Cations (Total)	meq/L	DG_A_I_PZ_WRK301	22/01/2020	110
Cations (Total)	meq/L	DG_A_I_PZ_WRK303	23/01/2020	98
Cations (Total)	meq/L	DG_A_I_PZ_IWB6	20/02/2020	16
Cations (Total)	meq/L	DG_A_I_PZ_GW04	20/02/2020	95
Cations (Total)	meq/L	DG_A_I_PZ_GW05	20/02/2020	93
Cations (Total)	meq/L	DG_A_I_PZ_GW01	20/02/2020	110
Cations (Total)	meq/L	DG_A_I_PZ_GW06	24/02/2020	220
Cations (Total)	meq/L	DG_A_I_PZ_GW08	25/02/2020	230
Cations (Total)	meq/L	DG_A_I_PZ_WRK301	25/02/2020	110
Cations (Total)	meq/L	DG_A_I_PZ_GW07	26/02/2020	180
Cations (Total)	meq/L	DG_A_I_PZ_BW45B	26/02/2020	160
Cations (Total)	meq/L	DG_A_I_PZ_BW28A	26/02/2020	220

Variable	Unit	Sample Point	Date	Result
Cations (Total)	meq/L	DG_A_I_PZ_BW53/Puls	26/02/2020	30
Cations (Total)	meq/L	DG_A_I_PZ_GW02	3/03/2020	65
Cations (Total)	meq/L	DG_A_I_PZ_WRK304	5/03/2020	85
Cations (Total)	meq/L	DG_A_I_PZ_GW08	5/05/2020	230
Chloride	mg/L	DG_A_I_PZ_GW07	9/01/2020	5700
Chloride	mg/L	DG_A_I_PZ_BW05	13/01/2020	7800
Chloride	mg/L	DG_A_I_PZ_BW28A	13/01/2020	6900
Chloride	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	750
Chloride	mg/L	DG_A_I_PZ_GW03	14/01/2020	3300
Chloride	mg/L	DG_A_I_PZ_GW02	14/01/2020	2100
Chloride	mg/L	DG_A_I_PZ_IWB2	14/01/2020	1200
Chloride	mg/L	DG_A_I_PZ_IWB6	14/01/2020	330
Chloride	mg/L	DG_A_I_PZ_GW01	15/01/2020	3500
Chloride	mg/L	DG_A_I_PZ_BW45B	15/01/2020	4900
Chloride	mg/L	DG_A_I_PZ_GW05	15/01/2020	2600
Chloride	mg/L	DG_A_I_PZ_GW04	15/01/2020	2900
Chloride	mg/L	DG_A_I_PZ_BW36A	16/01/2020	1200
Chloride	mg/L	DG_A_I_PZ_WRK300	16/01/2020	1700
Chloride	mg/L	DG_A_I_PZ_GW08	20/01/2020	6500
Chloride	mg/L	DG_A_I_PZ_WRK302	20/01/2020	6200
Chloride	mg/L	DG_A_I_PZ_WRK304	22/01/2020	2500
Chloride	mg/L	DG_A_I_PZ_GW06	22/01/2020	6000
Chloride	mg/L	DG_A_I_PZ_WRK301	22/01/2020	3100
Chloride	mg/L	DG_A_I_PZ_WRK303	23/01/2020	2700
Chloride	mg/L	DG_A_I_PZ_IWB6	20/02/2020	340
Chloride	mg/L	DG_A_I_PZ_GW04	20/02/2020	2800
Chloride	mg/L	DG_A_I_PZ_GW05	20/02/2020	2800
Chloride	mg/L	DG_A_I_PZ_GW01	20/02/2020	3400
Chloride	mg/L	DG_A_I_PZ_GW06	24/02/2020	6700
Chloride	mg/L	DG_A_I_PZ_GW08	25/02/2020	6700
Chloride	mg/L	DG_A_I_PZ_WRK301	25/02/2020	3200
Chloride	mg/L	DG_A_I_PZ_GW07	26/02/2020	5600
Chloride	mg/L	DG_A_I_PZ_BW45B	26/02/2020	5100
Chloride	mg/L	DG_A_I_PZ_BW28A	26/02/2020	7000
Chloride	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	770
Chloride	mg/L	DG_A_I_PZ_GW02	3/03/2020	2000
Chloride	mg/L	DG_A_I_PZ_WRK304	5/03/2020	2500
Chloride	mg/L	DG_A_I_PZ_GW08	5/05/2020	6800
Chromium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.01
Chromium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Chromium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.003
Chromium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.005
Chromium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.025
Chromium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.01
Chromium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.003
Chromium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.002
Chromium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.005
Chromium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.002
Chromium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.008
Chromium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.002
Chromium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.033
Chromium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.031
Cobalt (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.026
Cobalt (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.014
Cobalt (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.018
Cobalt (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.002
Cobalt (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.002
Cobalt (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.035
Cobalt (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.03
Cobalt (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.009
Cobalt (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.007
Cobalt (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.009
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.001
Cobalt (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.027

Variable	Unit	Sample Point	Date	Result
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.001
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.001
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.002
Cobalt (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.012
Cobalt (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.007
Cobalt (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.051
Cobalt (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.003
Cobalt (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.025
Cobalt (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.032
Cobalt (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.027
Cobalt (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.016
Cobalt (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.001
Copper (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.011
Copper (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.029
Copper (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.01
Copper (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.007
Copper (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.005
Copper (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.004
Copper (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.005
Copper (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.004
Copper (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.007
Copper (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.011
Copper (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.004
Copper (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.003

Variable	Unit	Sample Point	Date	Result
Copper (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.019
Copper (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.004
Copper (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.002
Copper (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.003
Copper (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.002
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	9/01/2020	18000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW05	13/01/2020	23000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW28A	13/01/2020	21000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW53/Puls	13/01/2020	3100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	14/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	14/01/2020	7200
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB2	14/01/2020	4100
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB6	14/01/2020	1700
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	15/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	15/01/2020	16000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	15/01/2020	9100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	15/01/2020	9500
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	16/01/2020	4800
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	16/01/2020	6200
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	20/01/2020	20000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	20/01/2020	19000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	22/01/2020	9000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	22/01/2020	21000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	22/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	23/01/2020	9100
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB6	20/02/2020	1600
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	20/02/2020	9200
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	20/02/2020	8800
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	20/02/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	24/02/2020	20000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	25/02/2020	19000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	25/02/2020	10000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	26/02/2020	17000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	26/02/2020	15000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW28A	26/02/2020	21000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW53/Puls	26/02/2020	3100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	3/03/2020	6800
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	5/03/2020	8800
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	5/05/2020	20000
Fluoride	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.28
Fluoride	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.55

Variable	Unit	Sample Point	Date	Result
Fluoride	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.51
Fluoride	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.12
Fluoride	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.27
Fluoride	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.1*
Fluoride	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.17
Fluoride	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.1*
Fluoride	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.64
Fluoride	mg/L	DG_A_I_PZ_BW45B	15/01/2020	1.3
Fluoride	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.11
Fluoride	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.18
Fluoride	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.68
Fluoride	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.36
Fluoride	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.21
Fluoride	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.62
Fluoride	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.32
Fluoride	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.28
Fluoride	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.6
Fluoride	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.26
Fluoride	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.1*
Fluoride	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.15
Fluoride	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.11
Fluoride	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.68
Fluoride	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.29
Fluoride	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.2
Fluoride	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.53
Fluoride	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.29
Fluoride	mg/L	DG_A_I_PZ_BW45B	26/02/2020	1.1
Fluoride	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.36
Fluoride	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.11
Fluoride	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.1*
Fluoride	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.36
Fluoride	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.22
Iron (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.06
Iron (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.42
Iron (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	6
Iron (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.27
Iron (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	4.8
Iron (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.05
Iron (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.07
Iron (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.27
Iron (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.03
Iron (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.13
Iron (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.02
Iron (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.02

Variable	Unit	Sample Point	Date	Result
Iron (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	8.8
Iron (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.05
Iron (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.02
Iron (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.01
Iron (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.02
Iron (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.03
Iron (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.52
Iron (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.06
Iron (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.09
Iron (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.01
Iron (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.04
Iron (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.04
Iron (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.04
Iron (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.02
Iron (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.03
Iron (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.04
Iron (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.18
Iron (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	6.8
Iron (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.34
Iron (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.04
Iron (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.02
Iron (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.02
Lead (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.007
Lead (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.002
Lead (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.006
Lead (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.006
Lead (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Lead (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.01
Lead (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Magnesium	mg/L	DG_A_I_PZ_GW07	9/01/2020	300
Magnesium	mg/L	DG_A_I_PZ_BW05	13/01/2020	450
Magnesium	mg/L	DG_A_I_PZ_BW28A	13/01/2020	520
Magnesium	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	61
Magnesium	mg/L	DG_A_I_PZ_GW03	14/01/2020	200
Magnesium	mg/L	DG_A_I_PZ_GW02	14/01/2020	140
Magnesium	mg/L	DG_A_I_PZ_IWB2	14/01/2020	94
Magnesium	mg/L	DG_A_I_PZ_IWB6	14/01/2020	20
Magnesium	mg/L	DG_A_I_PZ_GW01	15/01/2020	230
Magnesium	mg/L	DG_A_I_PZ_BW45B	15/01/2020	310
Magnesium	mg/L	DG_A_I_PZ_GW05	15/01/2020	100
Magnesium	mg/L	DG_A_I_PZ_GW04	15/01/2020	180
Magnesium	mg/L	DG_A_I_PZ_BW36A	16/01/2020	76
Magnesium	mg/L	DG_A_I_PZ_WRK300	16/01/2020	120
Magnesium	mg/L	DG_A_I_PZ_GW08	20/01/2020	480
Magnesium	mg/L	DG_A_I_PZ_WRK302	20/01/2020	410
Magnesium	mg/L	DG_A_I_PZ_WRK304	22/01/2020	120
Magnesium	mg/L	DG_A_I_PZ_GW06	22/01/2020	510
Magnesium	mg/L	DG_A_I_PZ_WRK301	22/01/2020	260
Magnesium	mg/L	DG_A_I_PZ_WRK303	23/01/2020	150
Magnesium	mg/L	DG_A_I_PZ_IWB6	20/02/2020	19
Magnesium	mg/L	DG_A_I_PZ_GW04	20/02/2020	160
Magnesium	mg/L	DG_A_I_PZ_GW05	20/02/2020	100
Magnesium	mg/L	DG_A_I_PZ_GW01	20/02/2020	220
Magnesium	mg/L	DG_A_I_PZ_GW06	24/02/2020	490
Magnesium	mg/L	DG_A_I_PZ_GW08	25/02/2020	500
Magnesium	mg/L	DG_A_I_PZ_WRK301	25/02/2020	260
Magnesium	mg/L	DG_A_I_PZ_GW07	26/02/2020	300
Magnesium	mg/L	DG_A_I_PZ_BW45B	26/02/2020	300
Magnesium	mg/L	DG_A_I_PZ_BW28A	26/02/2020	530
Magnesium	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	62
Magnesium	mg/L	DG_A_I_PZ_GW02	3/03/2020	140

Variable	Unit	Sample Point	Date	Result
Magnesium	mg/L	DG_A_I_PZ_WRK304	5/03/2020	110
Magnesium	mg/L	DG_A_I_PZ_GW08	5/05/2020	500
Manganese (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.009
Manganese (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.13
Manganese (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	1.4
Manganese (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.036
Manganese (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	2
Manganese (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.55
Manganese (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.009
Manganese (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.009
Manganese (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.031
Manganese (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.077
Manganese (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.039
Manganese (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.055
Manganese (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	3.1
Manganese (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.13
Manganese (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.014
Manganese (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.018
Manganese (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.01
Manganese (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.022
Manganese (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.046
Manganese (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.007
Manganese (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.008
Manganese (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.045
Manganese (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.029
Manganese (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.006
Manganese (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.029
Manganese (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.01
Manganese (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.019
Manganese (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.008
Manganese (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.051
Manganese (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	1.4
Manganese (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.028
Manganese (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.52
Manganese (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.009
Manganese (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.007
Mercury (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.0001
Mercury (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.0001*

Variable	Unit	Sample Point	Date	Result
Mercury (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.0001
Mercury (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.0002
Mercury (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.0002
Mercury (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.0001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.002
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.002
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.002
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.002
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.002
Molybdenum (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Nickel (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.03
Nickel (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Nickel (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.013
Nickel (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Nickel (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.008
Nickel (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.006
Nickel (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.003
Nickel (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.002
Nickel (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.022
Nickel (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.045
Nickel (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.005
Nickel (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.007
Nickel (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.012
Nickel (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.005
Nickel (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.009
Nickel (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.021
Nickel (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.003
Nickel (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.013
Nickel (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.003
Nickel (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.004
Nickel (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.002
Nickel (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.009
Nickel (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.005
Nickel (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.028
Nickel (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.016
Nickel (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.009
Nickel (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.002
Nickel (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.024

Variable	Unit	Sample Point	Date	Result
Nickel (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.048
Nickel (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.013
Nickel (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.001
Nickel (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.005
Nickel (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.003
Nickel (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.008
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.56
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW05	13/01/2020	1.1
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.22
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	5
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW03	14/01/2020	1.4
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW02	14/01/2020	8.4
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_IWB2	14/01/2020	4.4
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_IWB6	14/01/2020	8.9
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW01	15/01/2020	1.2
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.03
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW05	15/01/2020	4.2
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW04	15/01/2020	3
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.66
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.29
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.34
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK304	22/01/2020	2.2
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.13
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.22
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK303	23/01/2020	2.8
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_IWB6	20/02/2020	9.6
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW04	20/02/2020	3.4
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW05	20/02/2020	4.3
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW01	20/02/2020	1.5
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.14
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.31
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.1
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.58
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.064
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.15
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	4
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW02	3/03/2020	14
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_WRK304	5/03/2020	2.2
Nitrate-Nitrogen	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.33
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.016
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.042

Variable	Unit	Sample Point	Date	Result
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.02
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.018
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.004
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.001
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.16
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.018
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.014
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.12
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.007
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.015
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.1
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.004
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.001
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.009
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.01
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.006
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.012
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.024
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
pH	pH units	DG_A_I_PZ_GW07	9/01/2020	6.5
pH	pH units	DG_A_I_PZ_BW05	13/01/2020	7.1
pH	pH units	DG_A_I_PZ_BW28A	13/01/2020	6.6
pH	pH units	DG_A_I_PZ_BW53/Puls	13/01/2020	6.9
pH	pH units	DG_A_I_PZ_GW03	14/01/2020	6.5
pH	pH units	DG_A_I_PZ_GW02	14/01/2020	5.7
pH	pH units	DG_A_I_PZ_IWB2	14/01/2020	5.7
pH	pH units	DG_A_I_PZ_IWB6	14/01/2020	5.6
pH	pH units	DG_A_I_PZ_GW01	15/01/2020	5.6
pH	pH units	DG_A_I_PZ_BW45B	15/01/2020	4.8
pH	pH units	DG_A_I_PZ_GW05	15/01/2020	6
pH	pH units	DG_A_I_PZ_GW04	15/01/2020	5.9
pH	pH units	DG_A_I_PZ_BW36A	16/01/2020	6.9
pH	pH units	DG_A_I_PZ_WRK300	16/01/2020	6.8

Variable	Unit	Sample Point	Date	Result
pH	pH units	DG_A_I_PZ_GW08	20/01/2020	6.4
pH	pH units	DG_A_I_PZ_WRK302	20/01/2020	6
pH	pH units	DG_A_I_PZ_WRK304	22/01/2020	6.5
pH	pH units	DG_A_I_PZ_GW06	22/01/2020	6.6
pH	pH units	DG_A_I_PZ_WRK301	22/01/2020	7.2
pH	pH units	DG_A_I_PZ_WRK303	23/01/2020	6.1
pH	pH units	DG_A_I_PZ_IWB6	20/02/2020	5.6
pH	pH units	DG_A_I_PZ_GW04	20/02/2020	5.7
pH	pH units	DG_A_I_PZ_GW05	20/02/2020	5.9
pH	pH units	DG_A_I_PZ_GW01	20/02/2020	5.4
pH	pH units	DG_A_I_PZ_GW06	24/02/2020	6.6
pH	pH units	DG_A_I_PZ_GW08	25/02/2020	6.3
pH	pH units	DG_A_I_PZ_WRK301	25/02/2020	7.3
pH	pH units	DG_A_I_PZ_GW07	26/02/2020	6.5
pH	pH units	DG_A_I_PZ_BW45B	26/02/2020	4.9
pH	pH units	DG_A_I_PZ_BW28A	26/02/2020	6.6
pH	pH units	DG_A_I_PZ_BW53/Puls	26/02/2020	6.7
pH	pH units	DG_A_I_PZ_GW02	3/03/2020	5.6
pH	pH units	DG_A_I_PZ_WRK304	5/03/2020	6.3
pH	pH units	DG_A_I_PZ_GW08	5/05/2020	6.3
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.045
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.58
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.011
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.006
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.034
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.009
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.008
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.15
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.017
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.01
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.01
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.008
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.009
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.006
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.004

Variable	Unit	Sample Point	Date	Result
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.011
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.005
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.007
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.04
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.54
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.004
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.008
Phosphorus (Ortho)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.007
Radium 226	Bq/L	DG_A_I_PZ_GW07	9/01/2020	0.08
Radium 226	Bq/L	DG_A_I_PZ_BW05	13/01/2020	*0.01*
Radium 226	Bq/L	DG_A_I_PZ_BW28A	13/01/2020	0.1
Radium 226	Bq/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.04
Radium 226	Bq/L	DG_A_I_PZ_GW03	14/01/2020	0.01
Radium 226	Bq/L	DG_A_I_PZ_GW02	14/01/2020	0.05
Radium 226	Bq/L	DG_A_I_PZ_IWB2	14/01/2020	0.06
Radium 226	Bq/L	DG_A_I_PZ_IWB6	14/01/2020	0.03
Radium 226	Bq/L	DG_A_I_PZ_GW01	15/01/2020	0.32
Radium 226	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	0.51
Radium 226	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	0.51
Radium 226	Bq/L	DG_A_I_PZ_GW05	15/01/2020	0.03
Radium 226	Bq/L	DG_A_I_PZ_GW04	15/01/2020	0.1
Radium 226	Bq/L	DG_A_I_PZ_BW36A	16/01/2020	*0.01*
Radium 226	Bq/L	DG_A_I_PZ_WRK300	16/01/2020	0.02
Radium 226	Bq/L	DG_A_I_PZ_GW08	20/01/2020	0.07
Radium 226	Bq/L	DG_A_I_PZ_WRK302	20/01/2020	0.34
Radium 226	Bq/L	DG_A_I_PZ_WRK304	22/01/2020	*0.01*
Radium 226	Bq/L	DG_A_I_PZ_GW06	22/01/2020	0.04
Radium 226	Bq/L	DG_A_I_PZ_WRK301	22/01/2020	0.06
Radium 226	Bq/L	DG_A_I_PZ_WRK303	23/01/2020	0.03
Radium 226	Bq/L	DG_A_I_PZ_IWB6	20/02/2020	0.02
Radium 226	Bq/L	DG_A_I_PZ_GW04	20/02/2020	0.14
Radium 226	Bq/L	DG_A_I_PZ_GW05	20/02/2020	0.04
Radium 226	Bq/L	DG_A_I_PZ_GW01	20/02/2020	0.32
Radium 226	Bq/L	DG_A_I_PZ_GW06	24/02/2020	0.08
Radium 226	Bq/L	DG_A_I_PZ_GW08	25/02/2020	0.07
Radium 226	Bq/L	DG_A_I_PZ_WRK301	25/02/2020	0.01
Radium 226	Bq/L	DG_A_I_PZ_GW07	26/02/2020	0.07
Radium 226	Bq/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.03
Radium 226	Bq/L	DG_A_I_PZ_BW45B	26/02/2020	0.52
Radium 226	Bq/L	DG_A_I_PZ_BW28A	26/02/2020	0.12
Radium 226	Bq/L	DG_A_I_PZ_GW02	3/03/2020	0.08
Radium 226	Bq/L	DG_A_I_PZ_WRK304	5/03/2020	*0.01*

Variable	Unit	Sample Point	Date	Result
Radium 226	Bq/L	DG_A_I_PZ_GW08	5/05/2020	0.06
Radium 228	Bq/L	DG_A_I_PZ_GW07	9/01/2020	0.19
Radium 228	Bq/L	DG_A_I_PZ_BW05	13/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_BW28A	13/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.12
Radium 228	Bq/L	DG_A_I_PZ_GW03	14/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW02	14/01/2020	0.14
Radium 228	Bq/L	DG_A_I_PZ_IWB2	14/01/2020	0.12
Radium 228	Bq/L	DG_A_I_PZ_IWB6	14/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW01	15/01/2020	0.81
Radium 228	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	2.81
Radium 228	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	2.81
Radium 228	Bq/L	DG_A_I_PZ_GW05	15/01/2020	0.13
Radium 228	Bq/L	DG_A_I_PZ_GW04	15/01/2020	0.25
Radium 228	Bq/L	DG_A_I_PZ_BW36A	16/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_WRK300	16/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW08	20/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_WRK302	20/01/2020	1.02
Radium 228	Bq/L	DG_A_I_PZ_WRK304	22/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW06	22/01/2020	0.21
Radium 228	Bq/L	DG_A_I_PZ_WRK301	22/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_WRK303	23/01/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_IWB6	20/02/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW04	20/02/2020	0.26
Radium 228	Bq/L	DG_A_I_PZ_GW05	20/02/2020	0.1
Radium 228	Bq/L	DG_A_I_PZ_GW01	20/02/2020	0.9
Radium 228	Bq/L	DG_A_I_PZ_GW06	24/02/2020	0.16
Radium 228	Bq/L	DG_A_I_PZ_GW08	25/02/2020	0.09
Radium 228	Bq/L	DG_A_I_PZ_WRK301	25/02/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW07	26/02/2020	0.24
Radium 228	Bq/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.17
Radium 228	Bq/L	DG_A_I_PZ_BW45B	26/02/2020	2.9
Radium 228	Bq/L	DG_A_I_PZ_BW28A	26/02/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW02	3/03/2020	0.27
Radium 228	Bq/L	DG_A_I_PZ_WRK304	5/03/2020	*0.08*
Radium 228	Bq/L	DG_A_I_PZ_GW08	5/05/2020	*0.08*
Selenium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.01
Selenium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.011
Selenium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.009
Selenium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.002
Selenium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Selenium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.003
Selenium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Selenium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.002

Variable	Unit	Sample Point	Date	Result
Selenium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.018
Selenium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.019
Selenium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.031
Selenium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.022
Selenium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.003
Selenium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.003
Selenium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.016
Selenium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.011
Selenium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.013
Selenium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.008
Selenium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.008
Selenium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.025
Selenium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.001
Selenium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.022
Selenium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.025
Selenium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.025
Selenium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.01
Selenium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.016
Selenium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.006
Selenium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.009
Selenium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.018
Selenium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.008
Selenium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.001
Selenium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.002
Selenium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.012
Selenium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.017
Silver (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Silver (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.002
Silver (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Sodium	mg/L	DG_A_I_PZ_GW07	9/01/2020	3100
Sodium	mg/L	DG_A_I_PZ_BW05	13/01/2020	4700
Sodium	mg/L	DG_A_I_PZ_BW28A	13/01/2020	3400
Sodium	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	500
Sodium	mg/L	DG_A_I_PZ_GW03	14/01/2020	1800
Sodium	mg/L	DG_A_I_PZ_GW02	14/01/2020	1200
Sodium	mg/L	DG_A_I_PZ_IWB2	14/01/2020	670
Sodium	mg/L	DG_A_I_PZ_IWB6	14/01/2020	340
Sodium	mg/L	DG_A_I_PZ_GW01	15/01/2020	1900
Sodium	mg/L	DG_A_I_PZ_BW45B	15/01/2020	2800
Sodium	mg/L	DG_A_I_PZ_GW05	15/01/2020	1700
Sodium	mg/L	DG_A_I_PZ_GW04	15/01/2020	1600
Sodium	mg/L	DG_A_I_PZ_BW36A	16/01/2020	770
Sodium	mg/L	DG_A_I_PZ_WRK300	16/01/2020	1100
Sodium	mg/L	DG_A_I_PZ_GW08	20/01/2020	3400
Sodium	mg/L	DG_A_I_PZ_WRK302	20/01/2020	3500
Sodium	mg/L	DG_A_I_PZ_WRK304	22/01/2020	1700
Sodium	mg/L	DG_A_I_PZ_GW06	22/01/2020	3400
Sodium	mg/L	DG_A_I_PZ_WRK301	22/01/2020	1700
Sodium	mg/L	DG_A_I_PZ_WRK303	23/01/2020	1800
Sodium	mg/L	DG_A_I_PZ_IWB6	20/02/2020	310
Sodium	mg/L	DG_A_I_PZ_GW04	20/02/2020	1700
Sodium	mg/L	DG_A_I_PZ_GW05	20/02/2020	1900
Sodium	mg/L	DG_A_I_PZ_GW01	20/02/2020	1900
Sodium	mg/L	DG_A_I_PZ_GW06	24/02/2020	3400
Sodium	mg/L	DG_A_I_PZ_GW08	25/02/2020	3600
Sodium	mg/L	DG_A_I_PZ_WRK301	25/02/2020	1800
Sodium	mg/L	DG_A_I_PZ_GW07	26/02/2020	3100

Variable	Unit	Sample Point	Date	Result
Sodium	mg/L	DG_A_I_PZ_BW45B	26/02/2020	2700
Sodium	mg/L	DG_A_I_PZ_BW28A	26/02/2020	3600
Sodium	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	520
Sodium	mg/L	DG_A_I_PZ_GW02	3/03/2020	1200
Sodium	mg/L	DG_A_I_PZ_WRK304	5/03/2020	1600
Sodium	mg/L	DG_A_I_PZ_GW08	5/05/2020	3800
Sulfate	mg/L	DG_A_I_PZ_GW07	9/01/2020	1000
Sulfate	mg/L	DG_A_I_PZ_BW05	13/01/2020	870
Sulfate	mg/L	DG_A_I_PZ_BW28A	13/01/2020	960
Sulfate	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	310
Sulfate	mg/L	DG_A_I_PZ_GW03	14/01/2020	550
Sulfate	mg/L	DG_A_I_PZ_GW02	14/01/2020	340
Sulfate	mg/L	DG_A_I_PZ_IWB2	14/01/2020	160
Sulfate	mg/L	DG_A_I_PZ_IWB6	14/01/2020	250
Sulfate	mg/L	DG_A_I_PZ_GW01	15/01/2020	470
Sulfate	mg/L	DG_A_I_PZ_BW45B	15/01/2020	920
Sulfate	mg/L	DG_A_I_PZ_GW05	15/01/2020	640
Sulfate	mg/L	DG_A_I_PZ_GW04	15/01/2020	520
Sulfate	mg/L	DG_A_I_PZ_BW36A	16/01/2020	90
Sulfate	mg/L	DG_A_I_PZ_WRK300	16/01/2020	310
Sulfate	mg/L	DG_A_I_PZ_GW08	20/01/2020	1300
Sulfate	mg/L	DG_A_I_PZ_WRK302	20/01/2020	1500
Sulfate	mg/L	DG_A_I_PZ_WRK304	22/01/2020	700
Sulfate	mg/L	DG_A_I_PZ_GW06	22/01/2020	1600
Sulfate	mg/L	DG_A_I_PZ_WRK301	22/01/2020	600
Sulfate	mg/L	DG_A_I_PZ_WRK303	23/01/2020	560
Sulfate	mg/L	DG_A_I_PZ_IWB6	20/02/2020	190
Sulfate	mg/L	DG_A_I_PZ_GW04	20/02/2020	540
Sulfate	mg/L	DG_A_I_PZ_GW05	20/02/2020	620
Sulfate	mg/L	DG_A_I_PZ_GW01	20/02/2020	450
Sulfate	mg/L	DG_A_I_PZ_GW06	24/02/2020	1500
Sulfate	mg/L	DG_A_I_PZ_GW08	25/02/2020	1300
Sulfate	mg/L	DG_A_I_PZ_WRK301	25/02/2020	600
Sulfate	mg/L	DG_A_I_PZ_GW07	26/02/2020	890
Sulfate	mg/L	DG_A_I_PZ_BW45B	26/02/2020	810
Sulfate	mg/L	DG_A_I_PZ_BW28A	26/02/2020	850
Sulfate	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	310
Sulfate	mg/L	DG_A_I_PZ_GW02	3/03/2020	290
Sulfate	mg/L	DG_A_I_PZ_WRK304	5/03/2020	640
Sulfate	mg/L	DG_A_I_PZ_GW08	5/05/2020	1300
Thorium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.002*

Variable	Unit	Sample Point	Date	Result
Thorium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.0024
Thorium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.002*
Thorium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.002*
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW07	9/01/2020	11000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW05	13/01/2020	15000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW28A	13/01/2020	14000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	1800
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW03	14/01/2020	6700
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW02	14/01/2020	4200
Total Dissolved Solids	mg/L	DG_A_I_PZ_IWB2	14/01/2020	2300
Total Dissolved Solids	mg/L	DG_A_I_PZ_IWB6	14/01/2020	1100
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW01	15/01/2020	7400
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW45B	15/01/2020	10000
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW05	15/01/2020	5400
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW04	15/01/2020	5600
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW36A	16/01/2020	2900
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK300	16/01/2020	3600

Variable	Unit	Sample Point	Date	Result
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW08	20/01/2020	14000
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK302	20/01/2020	13000
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK304	22/01/2020	5600
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW06	22/01/2020	15000
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK301	22/01/2020	6800
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK303	23/01/2020	5600
Total Dissolved Solids	mg/L	DG_A_I_PZ_IWB6	20/02/2020	1300
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW04	20/02/2020	6100
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW05	20/02/2020	5600
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW01	20/02/2020	7000
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW06	24/02/2020	14000
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW08	25/02/2020	15000
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK301	25/02/2020	7100
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW07	26/02/2020	11000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW45B	26/02/2020	11000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW28A	26/02/2020	15000
Total Dissolved Solids	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	1900
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW02	3/03/2020	4000
Total Dissolved Solids	mg/L	DG_A_I_PZ_WRK304	5/03/2020	5000
Total Dissolved Solids	mg/L	DG_A_I_PZ_GW08	5/05/2020	14000
Uranium (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.004
Uranium (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.006
Uranium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.006
Uranium (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.001
Uranium (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.001
Uranium (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.003
Uranium (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.005
Uranium (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Uranium (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.003
Uranium (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.001
Uranium (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.005
Uranium (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.007
Uranium (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.007
Uranium (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	*0.001*
Uranium 238	Bq/L	DG_A_I_PZ_GW07	9/01/2020	2.04
Uranium 238	Bq/L	DG_A_I_PZ_BW05	13/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_BW28A	13/01/2020	2.16
Uranium 238	Bq/L	DG_A_I_PZ_BW53/Puls	13/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW03	14/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW02	14/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_IWB2	14/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_IWB6	14/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW01	15/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	0.099
Uranium 238	Bq/L	DG_A_I_PZ_BW45B	15/01/2020	0.099
Uranium 238	Bq/L	DG_A_I_PZ_GW05	15/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW04	15/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_BW36A	16/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_WRK300	16/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW08	20/01/2020	2.86
Uranium 238	Bq/L	DG_A_I_PZ_WRK302	20/01/2020	0.296
Uranium 238	Bq/L	DG_A_I_PZ_WRK304	22/01/2020	2.7
Uranium 238	Bq/L	DG_A_I_PZ_GW06	22/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_WRK301	22/01/2020	0.037
Uranium 238	Bq/L	DG_A_I_PZ_WRK303	23/01/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_IWB6	20/02/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW04	20/02/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW05	20/02/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW01	20/02/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_GW06	24/02/2020	1.33
Uranium 238	Bq/L	DG_A_I_PZ_GW08	25/02/2020	1.31
Uranium 238	Bq/L	DG_A_I_PZ_WRK301	25/02/2020	0.395
Uranium 238	Bq/L	DG_A_I_PZ_GW07	26/02/2020	0.037
Uranium 238	Bq/L	DG_A_I_PZ_BW53/Puls	26/02/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_BW45B	26/02/2020	0.086
Uranium 238	Bq/L	DG_A_I_PZ_BW28A	26/02/2020	0.234
Uranium 238	Bq/L	DG_A_I_PZ_GW02	3/03/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_PZ_WRK304	5/03/2020	*0.025*

Variable	Unit	Sample Point	Date	Result
Uranium 238	Bq/L	DG_A_I_PZ_GW08	5/05/2020	0.148
Zinc (Total)	mg/L	DG_A_I_PZ_GW07	9/01/2020	0.011
Zinc (Total)	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.002
Zinc (Total)	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0.006
Zinc (Total)	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0.007
Zinc (Total)	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.049
Zinc (Total)	mg/L	DG_A_I_PZ_GW02	14/01/2020	0.015
Zinc (Total)	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.006
Zinc (Total)	mg/L	DG_A_I_PZ_IWB6	14/01/2020	0.004
Zinc (Total)	mg/L	DG_A_I_PZ_GW01	15/01/2020	0.037
Zinc (Total)	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.044
Zinc (Total)	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.02
Zinc (Total)	mg/L	DG_A_I_PZ_GW04	15/01/2020	0.014
Zinc (Total)	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.019
Zinc (Total)	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.012
Zinc (Total)	mg/L	DG_A_I_PZ_GW08	20/01/2020	0.027
Zinc (Total)	mg/L	DG_A_I_PZ_WRK302	20/01/2020	0.012
Zinc (Total)	mg/L	DG_A_I_PZ_WRK304	22/01/2020	0.017
Zinc (Total)	mg/L	DG_A_I_PZ_GW06	22/01/2020	0.005
Zinc (Total)	mg/L	DG_A_I_PZ_WRK301	22/01/2020	0.018
Zinc (Total)	mg/L	DG_A_I_PZ_WRK303	23/01/2020	0.016
Zinc (Total)	mg/L	DG_A_I_PZ_IWB6	20/02/2020	0.006
Zinc (Total)	mg/L	DG_A_I_PZ_GW04	20/02/2020	0.014
Zinc (Total)	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.023
Zinc (Total)	mg/L	DG_A_I_PZ_GW01	20/02/2020	0.016
Zinc (Total)	mg/L	DG_A_I_PZ_GW06	24/02/2020	0.004
Zinc (Total)	mg/L	DG_A_I_PZ_GW08	25/02/2020	0.026
Zinc (Total)	mg/L	DG_A_I_PZ_WRK301	25/02/2020	0.01
Zinc (Total)	mg/L	DG_A_I_PZ_GW07	26/02/2020	0.009
Zinc (Total)	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.035
Zinc (Total)	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0.007
Zinc (Total)	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0.012
Zinc (Total)	mg/L	DG_A_I_PZ_GW02	3/03/2020	0.03
Zinc (Total)	mg/L	DG_A_I_PZ_WRK304	5/03/2020	0.012
Zinc (Total)	mg/L	DG_A_I_PZ_GW08	5/05/2020	0.024
Results that are italicised are equal to less than values i.e. *0.001* = <0.001				

Appendix C: Monitoring Data (Field) – Groundwater

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	9/01/2020	8.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW05	13/01/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW28A	13/01/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW53/Puls	13/01/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	14/01/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	14/01/2020	0.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_IWB2	14/01/2020	0.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_IWB6	14/01/2020	4.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	15/01/2020	5.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	15/01/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	15/01/2020	0.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	15/01/2020	3.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	16/01/2020	0.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	16/01/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	20/01/2020	4.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	20/01/2020	7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	22/01/2020	10.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	22/01/2020	7.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	22/01/2020	1.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	23/01/2020	9.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_IWB6	20/02/2020	3.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	20/02/2020	5
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	20/02/2020	0.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	20/02/2020	5
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	24/02/2020	8.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	24/02/2020	7.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	24/02/2020	8.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW05	24/02/2020	0.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	25/02/2020	4
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	25/02/2020	1.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	26/02/2020	7.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	26/02/2020	0.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW28A	26/02/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW53/Puls	26/02/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	27/02/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	27/02/2020	1
Dissolved Oxygen	mg/L	DG_A_I_PZ_IWB2	27/02/2020	0.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	28/02/2020	0.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	3/03/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	5/03/2020	9.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	18/03/2020	9.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	19/03/2020	0.5

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	19/03/2020	2.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	19/03/2020	0.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	20/03/2020	5
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	20/03/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	20/03/2020	4.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	23/03/2020	0.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	23/03/2020	0.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	23/03/2020	9.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	23/03/2020	6.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	23/03/2020	5.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	24/03/2020	10.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	24/03/2020	9.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	24/03/2020	1
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	6/04/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	6/04/2020	2
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	6/04/2020	2.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	6/04/2020	5.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	7/04/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	7/04/2020	10.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	7/04/2020	0.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	7/04/2020	0.1
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	7/04/2020	4.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	14/04/2020	4.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	14/04/2020	9.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	14/04/2020	6.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	14/04/2020	9.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	14/04/2020	9.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	14/04/2020	1.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	1/05/2020	8.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	1/05/2020	0.6
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	1/05/2020	1.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	5/05/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	5/05/2020	5.6
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	5/05/2020	6.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	5/05/2020	8.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	5/05/2020	4.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	6/05/2020	0.6
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	6/05/2020	4.6
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	6/05/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	6/05/2020	0.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	8/05/2020	10.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	8/05/2020	9.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	8/05/2020	1
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW03	11/06/2020	1.4

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW02	11/06/2020	2.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW45B	11/06/2020	0.3
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW05	11/06/2020	0.6
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK303	16/06/2020	9.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK301	16/06/2020	0.8
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK302	16/06/2020	6.7
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK304	16/06/2020	9.5
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW08	16/06/2020	7.9
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW06	16/06/2020	8
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW07	17/06/2020	9.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW04	17/06/2020	6.2
Dissolved Oxygen	mg/L	DG_A_I_PZ_BW36A	17/06/2020	0
Dissolved Oxygen	mg/L	DG_A_I_PZ_GW01	17/06/2020	4.4
Dissolved Oxygen	mg/L	DG_A_I_PZ_WRK300	17/06/2020	0.6
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	9/01/2020	96
Dissolved Oxygen Field	%	DG_A_I_PZ_BW05	13/01/2020	4
Dissolved Oxygen Field	%	DG_A_I_PZ_BW28A	13/01/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_BW53/Puls	13/01/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	14/01/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	14/01/2020	11
Dissolved Oxygen Field	%	DG_A_I_PZ_IWB2	14/01/2020	1
Dissolved Oxygen Field	%	DG_A_I_PZ_IWB6	14/01/2020	44
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	15/01/2020	65
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	15/01/2020	3
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	15/01/2020	5
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	15/01/2020	45
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	16/01/2020	2
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	16/01/2020	4
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	20/01/2020	51
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	20/01/2020	80
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	22/01/2020	123
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	22/01/2020	94
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	22/01/2020	21
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	23/01/2020	98
Dissolved Oxygen Field	%	DG_A_I_PZ_IWB6	20/02/2020	37
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	20/02/2020	62
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	20/02/2020	8
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	20/02/2020	62
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	24/02/2020	83
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	24/02/2020	82
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	24/02/2020	108
Dissolved Oxygen Field	%	DG_A_I_PZ_BW05	24/02/2020	1
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	25/02/2020	46
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	25/02/2020	15

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	26/02/2020	91
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	26/02/2020	4
Dissolved Oxygen Field	%	DG_A_I_PZ_BW28A	26/02/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_BW53/Puls	26/02/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	27/02/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	27/02/2020	23
Dissolved Oxygen Field	%	DG_A_I_PZ_IWB2	27/02/2020	1
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	28/02/2020	7
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	3/03/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	5/03/2020	110
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	18/03/2020	115
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	19/03/2020	7
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	19/03/2020	26
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	19/03/2020	8
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	20/03/2020	55
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	20/03/2020	2
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	20/03/2020	50
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	23/03/2020	5
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	23/03/2020	17
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	23/03/2020	112
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	23/03/2020	78
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	23/03/2020	58
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	24/03/2020	117
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	24/03/2020	107
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	24/03/2020	12
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	6/04/2020	2
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	6/04/2020	28
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	6/04/2020	26
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	6/04/2020	61
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	7/04/2020	5
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	7/04/2020	124
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	7/04/2020	14
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	7/04/2020	4
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	7/04/2020	46
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	14/04/2020	42
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	14/04/2020	110
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	14/04/2020	79
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	14/04/2020	112
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	14/04/2020	106
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	14/04/2020	16
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	1/05/2020	102
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	1/05/2020	10
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	1/05/2020	29
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	5/05/2020	7

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	5/05/2020	59
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	5/05/2020	76
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	5/05/2020	98
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	5/05/2020	45
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	6/05/2020	10
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	6/05/2020	48
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	6/05/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	6/05/2020	11
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	8/05/2020	110
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	8/05/2020	101
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	8/05/2020	10
Dissolved Oxygen Field	%	DG_A_I_PZ_GW03	11/06/2020	11
Dissolved Oxygen Field	%	DG_A_I_PZ_GW02	11/06/2020	25
Dissolved Oxygen Field	%	DG_A_I_PZ_BW45B	11/06/2020	5
Dissolved Oxygen Field	%	DG_A_I_PZ_GW05	11/06/2020	12
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK303	16/06/2020	99
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK301	16/06/2020	9
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK302	16/06/2020	76
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK304	16/06/2020	101
Dissolved Oxygen Field	%	DG_A_I_PZ_GW08	16/06/2020	90
Dissolved Oxygen Field	%	DG_A_I_PZ_GW06	16/06/2020	89
Dissolved Oxygen Field	%	DG_A_I_PZ_GW07	17/06/2020	106
Dissolved Oxygen Field	%	DG_A_I_PZ_GW04	17/06/2020	66
Dissolved Oxygen Field	%	DG_A_I_PZ_BW36A	17/06/2020	0
Dissolved Oxygen Field	%	DG_A_I_PZ_GW01	17/06/2020	46
Dissolved Oxygen Field	%	DG_A_I_PZ_WRK300	17/06/2020	18
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	9/01/2020	18000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW05	13/01/2020	23000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW28A	13/01/2020	21000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW53/Puls	13/01/2020	3100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	14/01/2020	7200
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	14/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB2	14/01/2020	4100
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB6	14/01/2020	1700
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	15/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	15/01/2020	16000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	15/01/2020	9100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	15/01/2020	9500
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	16/01/2020	4800
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	16/01/2020	6200
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	20/01/2020	20000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	20/01/2020	19000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	22/01/2020	9000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	22/01/2020	21000

Variable	Unit	Sample Point	Date	Result
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	22/01/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	23/01/2020	9100
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB6	20/02/2020	1600
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	20/02/2020	9200
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	20/02/2020	8800
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	20/02/2020	11000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	24/02/2020	20000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	24/02/2020	21418
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	24/02/2020	11028
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW05	24/02/2020	26137
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	25/02/2020	19000
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	25/02/2020	10000
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	26/02/2020	17000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	26/02/2020	15000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW28A	26/02/2020	21000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW53/Puls	26/02/2020	3100
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	27/02/2020	6264
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	27/02/2020	11744
Electrical Conductivity	µS/cm	DG_A_I_PZ_IWB2	27/02/2020	4391
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	28/02/2020	6702
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	3/03/2020	6800
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	5/03/2020	8800
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	18/03/2020	18659
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	19/03/2020	11466
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	19/03/2020	7661
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	19/03/2020	9930
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	20/03/2020	10246
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	20/03/2020	17176
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	20/03/2020	11894
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	23/03/2020	6579
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	23/03/2020	6524
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	23/03/2020	21654
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	23/03/2020	21205
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	23/03/2020	21994
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	24/03/2020	8880
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	24/03/2020	10494
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	24/03/2020	11729
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	6/04/2020	10786
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	6/04/2020	6985
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	6/04/2020	8969
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	6/04/2020	9537
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	7/04/2020	16100
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	7/04/2020	17634
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	7/04/2020	6109

Variable	Unit	Sample Point	Date	Result
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	7/04/2020	6147
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	7/04/2020	10768
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	14/04/2020	20165
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	14/04/2020	9188
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	14/04/2020	19537
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	14/04/2020	20786
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	14/04/2020	10163
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	14/04/2020	10855
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	1/05/2020	18549
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	1/05/2020	11556
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	1/05/2020	7680
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	5/05/2020	9644
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	5/05/2020	10199
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	5/05/2020	21063
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	5/05/2020	21656
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	5/05/2020	20000
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	6/05/2020	17490
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	6/05/2020	11635
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	6/05/2020	6792
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	6/05/2020	6527
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	8/05/2020	9028
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	8/05/2020	10206
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	8/05/2020	11777
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW03	11/06/2020	11544
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW02	11/06/2020	7351
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW45B	11/06/2020	17545
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW05	11/06/2020	9582
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK303	16/06/2020	11423
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK301	16/06/2020	11866
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK302	16/06/2020	21094
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK304	16/06/2020	9211
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW08	16/06/2020	21647
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW06	16/06/2020	21615
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW07	17/06/2020	18941
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW04	17/06/2020	10215
Electrical Conductivity	µS/cm	DG_A_I_PZ_BW36A	17/06/2020	7029
Electrical Conductivity	µS/cm	DG_A_I_PZ_GW01	17/06/2020	11626
Electrical Conductivity	µS/cm	DG_A_I_PZ_WRK300	17/06/2020	6543
pH	pH units	DG_A_I_PZ_GW07	9/01/2020	6.22
pH	pH units	DG_A_I_PZ_BW05	13/01/2020	6.98
pH	pH units	DG_A_I_PZ_BW28A	13/01/2020	6.45
pH	pH units	DG_A_I_PZ_BW53/Puls	13/01/2020	6.8
pH	pH units	DG_A_I_PZ_GW02	14/01/2020	5.4
pH	pH units	DG_A_I_PZ_GW03	14/01/2020	6.13

Variable	Unit	Sample Point	Date	Result
pH	pH units	DG_A_I_PZ_IWB2	14/01/2020	5.43
pH	pH units	DG_A_I_PZ_IWB6	14/01/2020	5.35
pH	pH units	DG_A_I_PZ_GW01	15/01/2020	5.36
pH	pH units	DG_A_I_PZ_BW45B	15/01/2020	4.72
pH	pH units	DG_A_I_PZ_GW05	15/01/2020	5.85
pH	pH units	DG_A_I_PZ_GW04	15/01/2020	5.63
pH	pH units	DG_A_I_PZ_BW36A	16/01/2020	6.83
pH	pH units	DG_A_I_PZ_WRK300	16/01/2020	6.69
pH	pH units	DG_A_I_PZ_GW08	20/01/2020	6.2
pH	pH units	DG_A_I_PZ_WRK302	20/01/2020	5.93
pH	pH units	DG_A_I_PZ_WRK304	22/01/2020	6.07
pH	pH units	DG_A_I_PZ_GW06	22/01/2020	6.49
pH	pH units	DG_A_I_PZ_WRK301	22/01/2020	6.96
pH	pH units	DG_A_I_PZ_WRK303	23/01/2020	5.83
pH	pH units	DG_A_I_PZ_IWB6	20/02/2020	5.18
pH	pH units	DG_A_I_PZ_GW04	20/02/2020	5.41
pH	pH units	DG_A_I_PZ_GW05	20/02/2020	5.72
pH	pH units	DG_A_I_PZ_GW01	20/02/2020	5.13
pH	pH units	DG_A_I_PZ_GW06	24/02/2020	6.28
pH	pH units	DG_A_I_PZ_WRK302	24/02/2020	5.74
pH	pH units	DG_A_I_PZ_WRK303	24/02/2020	5.63
pH	pH units	DG_A_I_PZ_BW05	24/02/2020	6.84
pH	pH units	DG_A_I_PZ_GW08	25/02/2020	6.06
pH	pH units	DG_A_I_PZ_WRK301	25/02/2020	6.79
pH	pH units	DG_A_I_PZ_GW07	26/02/2020	6.2
pH	pH units	DG_A_I_PZ_BW45B	26/02/2020	4.7
pH	pH units	DG_A_I_PZ_BW28A	26/02/2020	6.32
pH	pH units	DG_A_I_PZ_BW53/Puls	26/02/2020	6.41
pH	pH units	DG_A_I_PZ_BW36A	27/02/2020	6.56
pH	pH units	DG_A_I_PZ_GW03	27/02/2020	5.95
pH	pH units	DG_A_I_PZ_IWB2	27/02/2020	5.33
pH	pH units	DG_A_I_PZ_WRK300	28/02/2020	6.55
pH	pH units	DG_A_I_PZ_GW02	3/03/2020	5.26
pH	pH units	DG_A_I_PZ_WRK304	5/03/2020	5.9
pH	pH units	DG_A_I_PZ_GW07	18/03/2020	6.42
pH	pH units	DG_A_I_PZ_GW03	19/03/2020	6.26
pH	pH units	DG_A_I_PZ_GW02	19/03/2020	5.51
pH	pH units	DG_A_I_PZ_GW05	19/03/2020	5.91
pH	pH units	DG_A_I_PZ_GW04	20/03/2020	5.63
pH	pH units	DG_A_I_PZ_BW45B	20/03/2020	4.59
pH	pH units	DG_A_I_PZ_GW01	20/03/2020	5.33
pH	pH units	DG_A_I_PZ_BW36A	23/03/2020	6.68
pH	pH units	DG_A_I_PZ_WRK300	23/03/2020	6.57
pH	pH units	DG_A_I_PZ_GW06	23/03/2020	6.45

Variable	Unit	Sample Point	Date	Result
pH	pH units	DG_A_I_PZ_WRK302	23/03/2020	5.93
pH	pH units	DG_A_I_PZ_GW08	23/03/2020	6.18
pH	pH units	DG_A_I_PZ_WRK304	24/03/2020	6.04
pH	pH units	DG_A_I_PZ_WRK303	24/03/2020	5.8
pH	pH units	DG_A_I_PZ_WRK301	24/03/2020	6.96
pH	pH units	DG_A_I_PZ_GW03	6/04/2020	6.13
pH	pH units	DG_A_I_PZ_GW02	6/04/2020	5.42
pH	pH units	DG_A_I_PZ_GW05	6/04/2020	5.91
pH	pH units	DG_A_I_PZ_GW04	6/04/2020	5.59
pH	pH units	DG_A_I_PZ_BW45B	7/04/2020	4.52
pH	pH units	DG_A_I_PZ_GW07	7/04/2020	6.27
pH	pH units	DG_A_I_PZ_WRK300	7/04/2020	6.59
pH	pH units	DG_A_I_PZ_BW36A	7/04/2020	6.71
pH	pH units	DG_A_I_PZ_GW01	7/04/2020	5.25
pH	pH units	DG_A_I_PZ_GW08	14/04/2020	6.24
pH	pH units	DG_A_I_PZ_WRK304	14/04/2020	6.07
pH	pH units	DG_A_I_PZ_WRK302	14/04/2020	5.97
pH	pH units	DG_A_I_PZ_GW06	14/04/2020	6.5
pH	pH units	DG_A_I_PZ_WRK303	14/04/2020	5.86
pH	pH units	DG_A_I_PZ_WRK301	14/04/2020	6.95
pH	pH units	DG_A_I_PZ_GW07	1/05/2020	6.36
pH	pH units	DG_A_I_PZ_GW03	1/05/2020	6.09
pH	pH units	DG_A_I_PZ_GW02	1/05/2020	5.36
pH	pH units	DG_A_I_PZ_GW05	5/05/2020	5.85
pH	pH units	DG_A_I_PZ_GW04	5/05/2020	5.54
pH	pH units	DG_A_I_PZ_WRK302	5/05/2020	5.93
pH	pH units	DG_A_I_PZ_GW06	5/05/2020	6.47
pH	pH units	DG_A_I_PZ_GW08	5/05/2020	6.21
pH	pH units	DG_A_I_PZ_BW45B	6/05/2020	4.34
pH	pH units	DG_A_I_PZ_GW01	6/05/2020	5.27
pH	pH units	DG_A_I_PZ_BW36A	6/05/2020	6.67
pH	pH units	DG_A_I_PZ_WRK300	6/05/2020	6.57
pH	pH units	DG_A_I_PZ_WRK304	8/05/2020	6.03
pH	pH units	DG_A_I_PZ_WRK303	8/05/2020	5.83
pH	pH units	DG_A_I_PZ_WRK301	8/05/2020	6.94
pH	pH units	DG_A_I_PZ_GW03	11/06/2020	6.23
pH	pH units	DG_A_I_PZ_GW02	11/06/2020	5.5
pH	pH units	DG_A_I_PZ_BW45B	11/06/2020	4.48
pH	pH units	DG_A_I_PZ_GW05	11/06/2020	5.95
pH	pH units	DG_A_I_PZ_WRK303	16/06/2020	5.92
pH	pH units	DG_A_I_PZ_WRK301	16/06/2020	7.04
pH	pH units	DG_A_I_PZ_WRK302	16/06/2020	6.02
pH	pH units	DG_A_I_PZ_WRK304	16/06/2020	6.15
pH	pH units	DG_A_I_PZ_GW08	16/06/2020	6.3

Variable	Unit	Sample Point	Date	Result
pH	pH units	DG_A_I_PZ_GW06	16/06/2020	6.6
pH	pH units	DG_A_I_PZ_GW07	17/06/2020	6.38
pH	pH units	DG_A_I_PZ_GW04	17/06/2020	5.72
pH	pH units	DG_A_I_PZ_BW36A	17/06/2020	6.78
pH	pH units	DG_A_I_PZ_GW01	17/06/2020	5.45
pH	pH units	DG_A_I_PZ_WRK300	17/06/2020	6.66
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	9/01/2020	568
Redox Potential (Eh)	mV	DG_A_I_PZ_BW05	13/01/2020	50
Redox Potential (Eh)	mV	DG_A_I_PZ_BW28A	13/01/2020	196
Redox Potential (Eh)	mV	DG_A_I_PZ_BW53/Puls	13/01/2020	-191
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	14/01/2020	304
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	14/01/2020	119
Redox Potential (Eh)	mV	DG_A_I_PZ_IWB2	14/01/2020	440
Redox Potential (Eh)	mV	DG_A_I_PZ_IWB6	14/01/2020	485
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	15/01/2020	217
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	15/01/2020	281
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	15/01/2020	187
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	15/01/2020	197
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	16/01/2020	-34
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	16/01/2020	239
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	20/01/2020	192
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	20/01/2020	243
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	22/01/2020	217
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	22/01/2020	493
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	22/01/2020	486
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	23/01/2020	170
Redox Potential (Eh)	mV	DG_A_I_PZ_IWB6	20/02/2020	236
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	20/02/2020	240
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	20/02/2020	210
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	20/02/2020	250
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	24/02/2020	227
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	24/02/2020	370
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	24/02/2020	415
Redox Potential (Eh)	mV	DG_A_I_PZ_BW05	24/02/2020	49
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	25/02/2020	182
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	25/02/2020	374
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	26/02/2020	162
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	26/02/2020	242
Redox Potential (Eh)	mV	DG_A_I_PZ_BW28A	26/02/2020	-8
Redox Potential (Eh)	mV	DG_A_I_PZ_BW53/Puls	26/02/2020	-35
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	27/02/2020	-56
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	27/02/2020	65
Redox Potential (Eh)	mV	DG_A_I_PZ_IWB2	27/02/2020	192
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	28/02/2020	135

Variable	Unit	Sample Point	Date	Result
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	3/03/2020	276
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	5/03/2020	237
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	18/03/2020	366
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	19/03/2020	55
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	19/03/2020	270
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	19/03/2020	256
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	20/03/2020	198
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	20/03/2020	350
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	20/03/2020	276
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	23/03/2020	-42
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	23/03/2020	112
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	23/03/2020	161
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	23/03/2020	207
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	23/03/2020	184
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	24/03/2020	164
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	24/03/2020	186
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	24/03/2020	112
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	6/04/2020	76
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	6/04/2020	207
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	6/04/2020	237
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	6/04/2020	300
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	7/04/2020	306
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	7/04/2020	176
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	7/04/2020	184
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	7/04/2020	-11
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	7/04/2020	274
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	14/04/2020	209
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	14/04/2020	363
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	14/04/2020	399
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	14/04/2020	470
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	14/04/2020	360
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	14/04/2020	190
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	1/05/2020	129
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	1/05/2020	-10
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	1/05/2020	173
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	5/05/2020	356
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	5/05/2020	590
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	5/05/2020	268
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	5/05/2020	208
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	5/05/2020	168
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	6/05/2020	343
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	6/05/2020	283
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	6/05/2020	-26
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	6/05/2020	185

Variable	Unit	Sample Point	Date	Result
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	8/05/2020	209
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	8/05/2020	245
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	8/05/2020	180
Redox Potential (Eh)	mV	DG_A_I_PZ_GW03	11/06/2020	43
Redox Potential (Eh)	mV	DG_A_I_PZ_GW02	11/06/2020	220
Redox Potential (Eh)	mV	DG_A_I_PZ_BW45B	11/06/2020	279
Redox Potential (Eh)	mV	DG_A_I_PZ_GW05	11/06/2020	308
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK303	16/06/2020	222
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK301	16/06/2020	117
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK302	16/06/2020	217
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK304	16/06/2020	191
Redox Potential (Eh)	mV	DG_A_I_PZ_GW08	16/06/2020	177
Redox Potential (Eh)	mV	DG_A_I_PZ_GW06	16/06/2020	211
Redox Potential (Eh)	mV	DG_A_I_PZ_GW07	17/06/2020	180
Redox Potential (Eh)	mV	DG_A_I_PZ_GW04	17/06/2020	202
Redox Potential (Eh)	mV	DG_A_I_PZ_BW36A	17/06/2020	-28
Redox Potential (Eh)	mV	DG_A_I_PZ_GW01	17/06/2020	240
Redox Potential (Eh)	mV	DG_A_I_PZ_WRK300	17/06/2020	200
Standing Water Level	mAHD	DG_A_I_PZ_GW07	9/01/2020	172.436
Standing Water Level	mAHD	DG_A_I_PZ_BW05	13/01/2020	147.299
Standing Water Level	mAHD	DG_A_I_PZ_BW28A	13/01/2020	177.055
Standing Water Level	mAHD	DG_A_I_PZ_BW53/Puls	13/01/2020	175.83
Standing Water Level	mAHD	DG_A_I_PZ_GW02	14/01/2020	170.81
Standing Water Level	mAHD	DG_A_I_PZ_GW03	14/01/2020	162.07
Standing Water Level	mAHD	DG_A_I_PZ_IWB2	14/01/2020	179.706
Standing Water Level	mAHD	DG_A_I_PZ_IWB6	14/01/2020	176.74
Standing Water Level	mAHD	DG_A_I_PZ_GW01	15/01/2020	173.435
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	15/01/2020	177.38
Standing Water Level	mAHD	DG_A_I_PZ_GW05	15/01/2020	179
Standing Water Level	mAHD	DG_A_I_PZ_GW04	15/01/2020	178.39
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	16/01/2020	174.525
Standing Water Level	mAHD	DG_A_I_PZ_GW08	20/01/2020	177.66
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	20/01/2020	176.59
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	22/01/2020	180.36
Standing Water Level	mAHD	DG_A_I_PZ_GW06	22/01/2020	176.224
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	22/01/2020	178.18
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	23/01/2020	179.52
Standing Water Level	mAHD	DG_A_I_PZ_IWB6	20/02/2020	176.82
Standing Water Level	mAHD	DG_A_I_PZ_GW04	20/02/2020	178.38
Standing Water Level	mAHD	DG_A_I_PZ_GW05	20/02/2020	178.94
Standing Water Level	mAHD	DG_A_I_PZ_GW01	20/02/2020	173.405
Standing Water Level	mAHD	DG_A_I_PZ_GW06	24/02/2020	176.134
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	24/02/2020	176.67
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	24/02/2020	179.8

Variable	Unit	Sample Point	Date	Result
Standing Water Level	mAHD	DG_A_I_PZ_BW05	24/02/2020	147.459
Standing Water Level	mAHD	DG_A_I_PZ_GW08	25/02/2020	177.5
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	25/02/2020	178.16
Standing Water Level	mAHD	DG_A_I_PZ_GW07	26/02/2020	172.476
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	26/02/2020	177.31
Standing Water Level	mAHD	DG_A_I_PZ_BW28A	26/02/2020	176.835
Standing Water Level	mAHD	DG_A_I_PZ_BW53/Puls	26/02/2020	175.84
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	27/02/2020	174.505
Standing Water Level	mAHD	DG_A_I_PZ_GW03	27/02/2020	162.14
Standing Water Level	mAHD	DG_A_I_PZ_IWB2	27/02/2020	179.676
Standing Water Level	mAHD	DG_A_I_PZ_GW02	3/03/2020	170.79
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	5/03/2020	180.29
Standing Water Level	mAHD	DG_A_I_PZ_GW07	18/03/2020	172.466
Standing Water Level	mAHD	DG_A_I_PZ_GW03	19/03/2020	162.12
Standing Water Level	mAHD	DG_A_I_PZ_GW02	19/03/2020	170.76
Standing Water Level	mAHD	DG_A_I_PZ_GW05	19/03/2020	178.98
Standing Water Level	mAHD	DG_A_I_PZ_GW04	20/03/2020	178.43
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	20/03/2020	177.35
Standing Water Level	mAHD	DG_A_I_PZ_GW01	20/03/2020	173.425
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	23/03/2020	174.535
Standing Water Level	mAHD	DG_A_I_PZ_GW06	23/03/2020	176.224
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	23/03/2020	176.62
Standing Water Level	mAHD	DG_A_I_PZ_GW08	23/03/2020	177.63
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	24/03/2020	180.35
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	24/03/2020	179.83
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	24/03/2020	178.2
Standing Water Level	mAHD	DG_A_I_PZ_GW03	6/04/2020	161.89
Standing Water Level	mAHD	DG_A_I_PZ_GW02	6/04/2020	170.65
Standing Water Level	mAHD	DG_A_I_PZ_GW05	6/04/2020	178.84
Standing Water Level	mAHD	DG_A_I_PZ_GW04	6/04/2020	178.12
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	7/04/2020	177.37
Standing Water Level	mAHD	DG_A_I_PZ_GW07	7/04/2020	172.446
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	7/04/2020	174.225
Standing Water Level	mAHD	DG_A_I_PZ_GW01	7/04/2020	173.595
Standing Water Level	mAHD	DG_A_I_PZ_GW08	14/04/2020	177.37
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	14/04/2020	180.25
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	14/04/2020	176.68
Standing Water Level	mAHD	DG_A_I_PZ_GW06	14/04/2020	176.244
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	14/04/2020	179.85
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	14/04/2020	178.29
Standing Water Level	mAHD	DG_A_I_PZ_GW07	1/05/2020	172.476
Standing Water Level	mAHD	DG_A_I_PZ_GW02	1/05/2020	170.81
Standing Water Level	mAHD	DG_A_I_PZ_GW05	5/05/2020	178.9
Standing Water Level	mAHD	DG_A_I_PZ_GW04	5/05/2020	178.24

Variable	Unit	Sample Point	Date	Result
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	5/05/2020	176.7
Standing Water Level	mAHD	DG_A_I_PZ_GW06	5/05/2020	176.204
Standing Water Level	mAHD	DG_A_I_PZ_GW08	5/05/2020	177.49
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	6/05/2020	177.36
Standing Water Level	mAHD	DG_A_I_PZ_GW01	6/05/2020	173.525
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	6/05/2020	174.335
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	8/05/2020	180.5
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	8/05/2020	179.83
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	8/05/2020	178.16
Standing Water Level	mAHD	DG_A_I_PZ_GW02	11/06/2020	170.71
Standing Water Level	mAHD	DG_A_I_PZ_BW45B	11/06/2020	177.34
Standing Water Level	mAHD	DG_A_I_PZ_GW05	11/06/2020	178.96
Standing Water Level	mAHD	DG_A_I_PZ_WRK303	16/06/2020	179.79
Standing Water Level	mAHD	DG_A_I_PZ_WRK301	16/06/2020	178.15
Standing Water Level	mAHD	DG_A_I_PZ_WRK302	16/06/2020	176.67
Standing Water Level	mAHD	DG_A_I_PZ_WRK304	16/06/2020	180.36
Standing Water Level	mAHD	DG_A_I_PZ_GW08	16/06/2020	177.6
Standing Water Level	mAHD	DG_A_I_PZ_GW06	16/06/2020	176.264
Standing Water Level	mAHD	DG_A_I_PZ_GW07	17/06/2020	172.436
Standing Water Level	mAHD	DG_A_I_PZ_GW04	17/06/2020	178.2
Standing Water Level	mAHD	DG_A_I_PZ_BW36A	17/06/2020	174.405
Standing Water Level	mAHD	DG_A_I_PZ_GW01	17/06/2020	173.495
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	9/01/2020	16.41
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW05	13/01/2020	5.47
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW28A	13/01/2020	4.01
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW53/Puls	13/01/2020	10.3
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	14/01/2020	15.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	14/01/2020	10.35
Standing Water Level (mBTOC)	m	DG_A_I_PZ_IWB2	14/01/2020	12.21
Standing Water Level (mBTOC)	m	DG_A_I_PZ_IWB6	14/01/2020	1.96
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	15/01/2020	19.08
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	15/01/2020	19.87
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	15/01/2020	21.3
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	15/01/2020	23.85
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	16/01/2020	26.21
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	16/01/2020	24.58
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	20/01/2020	13.31
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	20/01/2020	13.69
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	22/01/2020	18.71
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	22/01/2020	13.29
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	22/01/2020	18.6
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	23/01/2020	20.88
Standing Water Level (mBTOC)	m	DG_A_I_PZ_IWB6	20/02/2020	1.88
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	20/02/2020	23.86

Variable	Unit	Sample Point	Date	Result
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	20/02/2020	21.36
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	20/02/2020	19.11
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	24/02/2020	13.38
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	24/02/2020	13.61
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	24/02/2020	20.6
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW05	24/02/2020	5.31
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	25/02/2020	13.47
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	25/02/2020	18.62
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	26/02/2020	16.37
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	26/02/2020	19.94
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW28A	26/02/2020	4.23
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW53/Puls	26/02/2020	10.29
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	27/02/2020	26.23
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	27/02/2020	10.28
Standing Water Level (mBTOC)	m	DG_A_I_PZ_IWB2	27/02/2020	12.24
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	28/02/2020	24.62
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	3/03/2020	15.59
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	5/03/2020	18.78
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	18/03/2020	16.38
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	19/03/2020	10.3
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	19/03/2020	15.62
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	19/03/2020	21.32
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	20/03/2020	23.81
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	20/03/2020	19.9
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	20/03/2020	19.09
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	23/03/2020	26.2
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	23/03/2020	24.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	23/03/2020	13.29
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	23/03/2020	13.66
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	23/03/2020	13.34
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	24/03/2020	18.72
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	24/03/2020	20.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	24/03/2020	18.58
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	6/04/2020	10.53
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	6/04/2020	15.73
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	6/04/2020	21.46
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	6/04/2020	24.12
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	7/04/2020	19.88
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	7/04/2020	16.4
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	7/04/2020	24.61
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	7/04/2020	26.51
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	7/04/2020	18.92
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	14/04/2020	13.6
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	14/04/2020	18.82

Variable	Unit	Sample Point	Date	Result
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	14/04/2020	13.6
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	14/04/2020	13.27
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	14/04/2020	20.55
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	14/04/2020	18.49
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	1/05/2020	16.37
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	1/05/2020	10.43
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	1/05/2020	15.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	5/05/2020	21.4
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	5/05/2020	24
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	5/05/2020	13.58
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	5/05/2020	13.31
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	5/05/2020	13.48
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	6/05/2020	19.89
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	6/05/2020	18.99
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	6/05/2020	26.4
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	6/05/2020	24.51
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	8/05/2020	18.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	8/05/2020	20.57
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	8/05/2020	18.62
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW03	11/06/2020	10.45
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW02	11/06/2020	15.67
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW45B	11/06/2020	19.91
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW05	11/06/2020	21.34
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK303	16/06/2020	20.61
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK301	16/06/2020	18.63
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK302	16/06/2020	13.61
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK304	16/06/2020	18.71
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW08	16/06/2020	13.37
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW06	16/06/2020	13.25
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW07	17/06/2020	16.41
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW04	17/06/2020	24.04
Standing Water Level (mBTOC)	m	DG_A_I_PZ_BW36A	17/06/2020	26.33
Standing Water Level (mBTOC)	m	DG_A_I_PZ_GW01	17/06/2020	19.02
Standing Water Level (mBTOC)	m	DG_A_I_PZ_WRK300	17/06/2020	24.56
Temperature	°C	DG_A_I_PZ_GW07	9/01/2020	18.7
Temperature	°C	DG_A_I_PZ_BW05	13/01/2020	16.9
Temperature	°C	DG_A_I_PZ_BW28A	13/01/2020	17.7
Temperature	°C	DG_A_I_PZ_BW53/Puls	13/01/2020	19.3
Temperature	°C	DG_A_I_PZ_GW02	14/01/2020	18.1
Temperature	°C	DG_A_I_PZ_GW03	14/01/2020	20.6
Temperature	°C	DG_A_I_PZ_IWB2	14/01/2020	18.2
Temperature	°C	DG_A_I_PZ_IWB6	14/01/2020	18
Temperature	°C	DG_A_I_PZ_GW01	15/01/2020	19.8
Temperature	°C	DG_A_I_PZ_BW45B	15/01/2020	21

Variable	Unit	Sample Point	Date	Result
Temperature	°C	DG_A_I_PZ_GW05	15/01/2020	22.5
Temperature	°C	DG_A_I_PZ_GW04	15/01/2020	23.1
Temperature	°C	DG_A_I_PZ_BW36A	16/01/2020	20
Temperature	°C	DG_A_I_PZ_WRK300	16/01/2020	21.3
Temperature	°C	DG_A_I_PZ_GW08	20/01/2020	17.7
Temperature	°C	DG_A_I_PZ_WRK302	20/01/2020	17.3
Temperature	°C	DG_A_I_PZ_WRK304	22/01/2020	20.3
Temperature	°C	DG_A_I_PZ_GW06	22/01/2020	17.9
Temperature	°C	DG_A_I_PZ_WRK301	22/01/2020	23.2
Temperature	°C	DG_A_I_PZ_WRK303	23/01/2020	16.1
Temperature	°C	DG_A_I_PZ_IWB6	20/02/2020	17.6
Temperature	°C	DG_A_I_PZ_GW04	20/02/2020	17
Temperature	°C	DG_A_I_PZ_GW05	20/02/2020	17.2
Temperature	°C	DG_A_I_PZ_GW01	20/02/2020	18.1
Temperature	°C	DG_A_I_PZ_GW06	24/02/2020	18
Temperature	°C	DG_A_I_PZ_WRK302	24/02/2020	17.5
Temperature	°C	DG_A_I_PZ_WRK303	24/02/2020	23
Temperature	°C	DG_A_I_PZ_BW05	24/02/2020	17.1
Temperature	°C	DG_A_I_PZ_GW08	25/02/2020	18
Temperature	°C	DG_A_I_PZ_WRK301	25/02/2020	24.6
Temperature	°C	DG_A_I_PZ_GW07	26/02/2020	18.3
Temperature	°C	DG_A_I_PZ_BW45B	26/02/2020	16.7
Temperature	°C	DG_A_I_PZ_BW28A	26/02/2020	17.6
Temperature	°C	DG_A_I_PZ_BW53/Puls	26/02/2020	18.1
Temperature	°C	DG_A_I_PZ_BW36A	27/02/2020	17.7
Temperature	°C	DG_A_I_PZ_GW03	27/02/2020	20
Temperature	°C	DG_A_I_PZ_IWB2	27/02/2020	18
Temperature	°C	DG_A_I_PZ_WRK300	28/02/2020	16.9
Temperature	°C	DG_A_I_PZ_GW02	3/03/2020	18.5
Temperature	°C	DG_A_I_PZ_WRK304	5/03/2020	19.4
Temperature	°C	DG_A_I_PZ_GW07	18/03/2020	18.5
Temperature	°C	DG_A_I_PZ_GW03	19/03/2020	20
Temperature	°C	DG_A_I_PZ_GW02	19/03/2020	18.2
Temperature	°C	DG_A_I_PZ_GW05	19/03/2020	23.3
Temperature	°C	DG_A_I_PZ_GW04	20/03/2020	17
Temperature	°C	DG_A_I_PZ_BW45B	20/03/2020	17.8
Temperature	°C	DG_A_I_PZ_GW01	20/03/2020	17.3
Temperature	°C	DG_A_I_PZ_BW36A	23/03/2020	16.3
Temperature	°C	DG_A_I_PZ_WRK300	23/03/2020	16.9
Temperature	°C	DG_A_I_PZ_GW06	23/03/2020	17.7
Temperature	°C	DG_A_I_PZ_WRK302	23/03/2020	17.3
Temperature	°C	DG_A_I_PZ_GW08	23/03/2020	18.4
Temperature	°C	DG_A_I_PZ_WRK304	24/03/2020	17.5
Temperature	°C	DG_A_I_PZ_WRK303	24/03/2020	17.7

Variable	Unit	Sample Point	Date	Result
Temperature	°C	DG_A_I_PZ_WRK301	24/03/2020	18
Temperature	°C	DG_A_I_PZ_GW03	6/04/2020	18
Temperature	°C	DG_A_I_PZ_GW02	6/04/2020	17.8
Temperature	°C	DG_A_I_PZ_GW05	6/04/2020	17.3
Temperature	°C	DG_A_I_PZ_GW04	6/04/2020	17.1
Temperature	°C	DG_A_I_PZ_BW45B	7/04/2020	16.8
Temperature	°C	DG_A_I_PZ_GW07	7/04/2020	18.2
Temperature	°C	DG_A_I_PZ_WRK300	7/04/2020	16.3
Temperature	°C	DG_A_I_PZ_BW36A	7/04/2020	16.9
Temperature	°C	DG_A_I_PZ_GW01	7/04/2020	17.4
Temperature	°C	DG_A_I_PZ_GW08	14/04/2020	18.3
Temperature	°C	DG_A_I_PZ_WRK304	14/04/2020	19.2
Temperature	°C	DG_A_I_PZ_WRK302	14/04/2020	17.3
Temperature	°C	DG_A_I_PZ_GW06	14/04/2020	17.8
Temperature	°C	DG_A_I_PZ_WRK303	14/04/2020	19.7
Temperature	°C	DG_A_I_PZ_WRK301	14/04/2020	21
Temperature	°C	DG_A_I_PZ_GW07	1/05/2020	18
Temperature	°C	DG_A_I_PZ_GW03	1/05/2020	17.4
Temperature	°C	DG_A_I_PZ_GW02	1/05/2020	17.6
Temperature	°C	DG_A_I_PZ_GW05	5/05/2020	16.1
Temperature	°C	DG_A_I_PZ_GW04	5/05/2020	15.2
Temperature	°C	DG_A_I_PZ_WRK302	5/05/2020	17.2
Temperature	°C	DG_A_I_PZ_GW06	5/05/2020	17.6
Temperature	°C	DG_A_I_PZ_GW08	5/05/2020	18.1
Temperature	°C	DG_A_I_PZ_BW45B	6/05/2020	16.3
Temperature	°C	DG_A_I_PZ_GW01	6/05/2020	16
Temperature	°C	DG_A_I_PZ_BW36A	6/05/2020	16.5
Temperature	°C	DG_A_I_PZ_WRK300	6/05/2020	17.7
Temperature	°C	DG_A_I_PZ_WRK304	8/05/2020	15.9
Temperature	°C	DG_A_I_PZ_WRK303	8/05/2020	16.9
Temperature	°C	DG_A_I_PZ_WRK301	8/05/2020	16.4
Temperature	°C	DG_A_I_PZ_GW03	11/06/2020	17.5
Temperature	°C	DG_A_I_PZ_GW02	11/06/2020	17.9
Temperature	°C	DG_A_I_PZ_BW45B	11/06/2020	16.9
Temperature	°C	DG_A_I_PZ_GW05	11/06/2020	17
Temperature	°C	DG_A_I_PZ_WRK303	16/06/2020	16.3
Temperature	°C	DG_A_I_PZ_WRK301	16/06/2020	16
Temperature	°C	DG_A_I_PZ_WRK302	16/06/2020	17.2
Temperature	°C	DG_A_I_PZ_WRK304	16/06/2020	15.5
Temperature	°C	DG_A_I_PZ_GW08	16/06/2020	17.7
Temperature	°C	DG_A_I_PZ_GW06	16/06/2020	17.5
Temperature	°C	DG_A_I_PZ_GW07	17/06/2020	18
Temperature	°C	DG_A_I_PZ_GW04	17/06/2020	16
Temperature	°C	DG_A_I_PZ_BW36A	17/06/2020	15.1

Variable	Unit	Sample Point	Date	Result
Temperature	°C	DG_A_I_PZ_GW01	17/06/2020	16
Temperature	°C	DG_A_I_PZ_WRK300	17/06/2020	16.6

Appendix D: Monitoring Data (Lab) – Surface water

Variable	Unit	Sample Point	Date	Result
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW14	1/04/2020	320
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW19	1/04/2020	87
Alkalinity (Bicarbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW22	15/06/2020	110
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0
Alkalinity (Carbonate) as CaCO3	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0
Alkalinity (Hydroxide) as OH	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0
Alkalinity (Hydroxide) as OH	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0
Alkalinity (Hydroxide) as OH	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0
Alkalinity (Total) as CaCO3	mg/L	DG_A_I_SW_DUSW19	1/04/2020	87
Aluminium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.19
Aluminium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	4.3
Aluminium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.09
Ammonia Nitrogen	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.012*
Ammonia Nitrogen	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.13
Ammonia Nitrogen	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.01*
Anions (Total)	meq/L	DG_A_I_SW_DUSW14	1/04/2020	72
Anions (Total)	meq/L	DG_A_I_SW_DUSW19	1/04/2020	9.6
Anions (Total)	meq/L	DG_A_I_SW_DUSW22	15/06/2020	100
Antimony (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Antimony (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Antimony (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Arsenic (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.003
Arsenic (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.002
Arsenic (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.001
Barium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.12
Barium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.076
Barium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.088
Beryllium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Beryllium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Beryllium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Boron (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.3
Boron (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.67
Boron (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.12
Cadmium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.0002*
Cadmium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.0002*
Calcium	mg/L	DG_A_I_SW_DUSW14	1/04/2020	45
Calcium	mg/L	DG_A_I_SW_DUSW19	1/04/2020	17
Calcium	mg/L	DG_A_I_SW_DUSW22	15/06/2020	150
Cations (Total)	meq/L	DG_A_I_SW_DUSW14	1/04/2020	68
Cations (Total)	meq/L	DG_A_I_SW_DUSW19	1/04/2020	9.4

Variable	Unit	Sample Point	Date	Result
Cations (Total)	meq/L	DG_A_I_SW_DUSW22	15/06/2020	100
Chloride	mg/L	DG_A_I_SW_DUSW14	1/04/2020	2200
Chloride	mg/L	DG_A_I_SW_DUSW19	1/04/2020	190
Chloride	mg/L	DG_A_I_SW_DUSW22	15/06/2020	3200
Chromium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Chromium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Cobalt (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.003
Cobalt (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Copper (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.001
Copper (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.003
Copper (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.001
Cyanide (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.063
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW14	1/04/2020	7400
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	7/01/2020	1100
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	17/06/2020	290
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	7/01/2020	870
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	1/04/2020	1000
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW22	15/06/2020	10000
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW23	15/06/2020	620
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	7/01/2020	1100
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	15/06/2020	250
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW27	15/06/2020	200
Fluoride	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.27
Fluoride	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.54
Fluoride	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.35
Iron (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	2.9
Iron (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	2.6
Iron (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.51
Lead (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Lead (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.005
Lead (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Magnesium	mg/L	DG_A_I_SW_DUSW14	1/04/2020	90
Magnesium	mg/L	DG_A_I_SW_DUSW19	1/04/2020	13
Magnesium	mg/L	DG_A_I_SW_DUSW22	15/06/2020	250
Manganese (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.23
Manganese (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.031
Manganese (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.046
Mercury (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.0001*
Mercury (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.0001*
Molybdenum (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Molybdenum (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Molybdenum (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Nickel (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.001
Nickel (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.005
Nickel (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.001
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW17	7/01/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW17	17/06/2020	0.24
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW19	7/01/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.005*
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW23	15/06/2020	1.9
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW26	7/01/2020	0.71
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW26	15/06/2020	1
Nitrate-Nitrogen	mg/L	DG_A_I_SW_DUSW27	15/06/2020	0.082
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW17	7/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW17	17/06/2020	0.01
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW19	7/01/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.001
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW23	15/06/2020	0.009
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW26	7/01/2020	0.009
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW26	15/06/2020	0.019
Nitrite-Nitrogen	mg/L	DG_A_I_SW_DUSW27	15/06/2020	0.005
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.71
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW17	7/01/2020	1.2
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW17	17/06/2020	1.6
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW19	7/01/2020	0.51
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.6
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.54
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW23	15/06/2020	2.5
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW26	7/01/2020	2.5
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW26	15/06/2020	2.5
Nitrogen (Total)	mg/L	DG_A_I_SW_DUSW27	15/06/2020	1.8
pH	pH units	DG_A_I_SW_DUSW14	1/04/2020	7.5
pH	pH units	DG_A_I_SW_DUSW17	7/01/2020	9.3
pH	pH units	DG_A_I_SW_DUSW17	17/06/2020	7.4
pH	pH units	DG_A_I_SW_DUSW19	7/01/2020	8.3
pH	pH units	DG_A_I_SW_DUSW19	1/04/2020	8.3
pH	pH units	DG_A_I_SW_DUSW22	15/06/2020	7.6
pH	pH units	DG_A_I_SW_DUSW23	15/06/2020	7.4
pH	pH units	DG_A_I_SW_DUSW26	7/01/2020	8.6
pH	pH units	DG_A_I_SW_DUSW26	15/06/2020	7.6
pH	pH units	DG_A_I_SW_DUSW27	15/06/2020	7.3

Variable	Unit	Sample Point	Date	Result
Phosphorus (Ortho)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.004*
Phosphorus (Ortho)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.004*
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.049
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW17	7/01/2020	0.07
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW17	17/06/2020	0.057
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW19	7/01/2020	0.028
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.08
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.004*
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW23	15/06/2020	*0.004*
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW26	7/01/2020	0.11
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW26	15/06/2020	0.052
Phosphorus (Total)	mg/L	DG_A_I_SW_DUSW27	15/06/2020	0.11
Potassium	mg/L	DG_A_I_SW_DUSW14	1/04/2020	13
Potassium	mg/L	DG_A_I_SW_DUSW19	1/04/2020	6.2
Potassium	mg/L	DG_A_I_SW_DUSW22	15/06/2020	16
Radium 226	Bq/L	DG_A_I_SW_DUSW14	1/04/2020	*0.01*
Radium 226	Bq/L	DG_A_I_SW_DUSW22	15/06/2020	*0.01*
Radium 228	Bq/L	DG_A_I_SW_DUSW14	1/04/2020	*0.08*
Radium 228	Bq/L	DG_A_I_SW_DUSW22	15/06/2020	*0.08*
Selenium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Selenium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.001
Selenium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Silver (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.003
Silver (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Sodium	mg/L	DG_A_I_SW_DUSW14	1/04/2020	1300
Sodium	mg/L	DG_A_I_SW_DUSW19	1/04/2020	170
Sodium	mg/L	DG_A_I_SW_DUSW22	15/06/2020	1700
Strontium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.72
Strontium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.2
Strontium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	1.9
Sulfate	mg/L	DG_A_I_SW_DUSW14	1/04/2020	240
Sulfate	mg/L	DG_A_I_SW_DUSW19	1/04/2020	120
Sulfate	mg/L	DG_A_I_SW_DUSW22	15/06/2020	360
Thallium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.003
Thallium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Thallium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Thorium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.0045
Thorium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.0057
Thorium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.002*
Tin (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*
Tin (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Tin (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Titanium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.007
Titanium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.15
Titanium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.003
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW14	1/04/2020	4400
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW17	7/01/2020	650
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW17	17/06/2020	1400
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW19	7/01/2020	560
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW19	1/04/2020	640
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW22	15/06/2020	7200
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW23	15/06/2020	630
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW26	7/01/2020	800
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW26	15/06/2020	3000
Total Dissolved Solids	mg/L	DG_A_I_SW_DUSW27	15/06/2020	320
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.71
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW17	7/01/2020	1.2
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW17	17/06/2020	1.4
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW19	7/01/2020	0.51
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.6
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.54
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW23	15/06/2020	0.53
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW26	7/01/2020	1.8
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW26	15/06/2020	1.4
Total Kjeldahl Nitrogen	mg/L	DG_A_I_SW_DUSW27	15/06/2020	1.7
Total Oxidised Nitrogen as N	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.006*
Total Oxidised Nitrogen as N	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.006*
Total Oxidised Nitrogen as N	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.006*
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW14	1/04/2020	27
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW17	7/01/2020	93
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW17	17/06/2020	92
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW19	7/01/2020	*1*
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW19	1/04/2020	40
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW22	15/06/2020	6
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW23	15/06/2020	14
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW26	7/01/2020	34
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW26	15/06/2020	98
Total Suspended Solids	mg/L	DG_A_I_SW_DUSW27	15/06/2020	33
Turbidity	NTU	DG_A_I_SW_DUSW17	7/01/2020	41
Turbidity	NTU	DG_A_I_SW_DUSW17	17/06/2020	1100
Turbidity	NTU	DG_A_I_SW_DUSW19	7/01/2020	32
Turbidity	NTU	DG_A_I_SW_DUSW19	1/04/2020	40
Turbidity	NTU	DG_A_I_SW_DUSW23	15/06/2020	310
Turbidity	NTU	DG_A_I_SW_DUSW26	7/01/2020	170
Turbidity	NTU	DG_A_I_SW_DUSW26	15/06/2020	2700
Uranium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	*0.001*

Variable	Unit	Sample Point	Date	Result
Uranium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	*0.001*
Uranium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Uranium 238	Bq/L	DG_A_I_SW_DUSW14	1/04/2020	*0.025*
Uranium 238	Bq/L	DG_A_I_SW_DUSW22	15/06/2020	*0.025*
Vanadium (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.004
Vanadium (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.006
Vanadium (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	*0.001*
Zinc (Total)	mg/L	DG_A_I_SW_DUSW14	1/04/2020	0.01
Zinc (Total)	mg/L	DG_A_I_SW_DUSW19	1/04/2020	0.008
Zinc (Total)	mg/L	DG_A_I_SW_DUSW22	15/06/2020	0.007
Results that are italicised are equal to less than values i.e. *0.001* = <0.001				

Appendix E: Monitoring Data (Field) – Surface water

Variable	Unit	Sample Point	Date	Result
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW14	1/04/2020	4.3
Dissolved Oxygen	%	DG_A_I_SW_DUSW14	1/04/2020	47
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW17	7/01/2020	9.9
Dissolved Oxygen	%	DG_A_I_SW_DUSW17	7/01/2020	100
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW17	17/06/2020	10.4
Dissolved Oxygen	%	DG_A_I_SW_DUSW17	17/06/2020	102
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW19	7/01/2020	9.7
Dissolved Oxygen	%	DG_A_I_SW_DUSW19	7/01/2020	111
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW19	1/04/2020	10.2
Dissolved Oxygen	%	DG_A_I_SW_DUSW19	1/04/2020	110
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW22	15/06/2020	10.2
Dissolved Oxygen	%	DG_A_I_SW_DUSW22	15/06/2020	99
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW23	15/06/2020	10.8
Dissolved Oxygen	%	DG_A_I_SW_DUSW23	15/06/2020	104
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW26	7/01/2020	10
Dissolved Oxygen	%	DG_A_I_SW_DUSW26	7/01/2020	106
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW26	15/06/2020	10.7
Dissolved Oxygen	%	DG_A_I_SW_DUSW26	15/06/2020	101
Dissolved Oxygen	mg/L	DG_A_I_SW_DUSW27	15/06/2020	10.5
Dissolved Oxygen	%	DG_A_I_SW_DUSW27	15/06/2020	102
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW14	1/04/2020	7400
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW14	1/04/2020	7879
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	7/01/2020	1100
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	7/01/2020	1109
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	17/06/2020	290
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW17	17/06/2020	318
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	7/01/2020	870
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	7/01/2020	891
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	1/04/2020	1000
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW19	1/04/2020	1126
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW22	15/06/2020	10000
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW22	15/06/2020	10999
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW23	15/06/2020	620
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW23	15/06/2020	658
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	7/01/2020	1100
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	7/01/2020	1115
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	15/06/2020	250
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW26	15/06/2020	269
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW27	15/06/2020	200
Electrical Conductivity	µS/cm	DG_A_I_SW_DUSW27	15/06/2020	218
pH	pH units	DG_A_I_SW_DUSW14	1/04/2020	7.5
pH	pH units	DG_A_I_SW_DUSW14	1/04/2020	7.48

Variable	Unit	Sample Point	Date	Result
pH	pH units	DG_A_I_SW_DUSW17	7/01/2020	9.3
pH	pH units	DG_A_I_SW_DUSW17	7/01/2020	9.3
pH	pH units	DG_A_I_SW_DUSW17	17/06/2020	7.4
pH	pH units	DG_A_I_SW_DUSW17	17/06/2020	7.69
pH	pH units	DG_A_I_SW_DUSW19	7/01/2020	8.3
pH	pH units	DG_A_I_SW_DUSW19	7/01/2020	8.18
pH	pH units	DG_A_I_SW_DUSW19	1/04/2020	8.3
pH	pH units	DG_A_I_SW_DUSW19	1/04/2020	7.68
pH	pH units	DG_A_I_SW_DUSW22	15/06/2020	7.6
pH	pH units	DG_A_I_SW_DUSW22	15/06/2020	6.76
pH	pH units	DG_A_I_SW_DUSW23	15/06/2020	7.4
pH	pH units	DG_A_I_SW_DUSW23	15/06/2020	7.45
pH	pH units	DG_A_I_SW_DUSW26	7/01/2020	8.6
pH	pH units	DG_A_I_SW_DUSW26	7/01/2020	8.74
pH	pH units	DG_A_I_SW_DUSW26	15/06/2020	7.6
pH	pH units	DG_A_I_SW_DUSW26	15/06/2020	7.82
pH	pH units	DG_A_I_SW_DUSW27	15/06/2020	7.3
pH	pH units	DG_A_I_SW_DUSW27	15/06/2020	7.62
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW14	1/04/2020	193
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW17	7/01/2020	160
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW17	17/06/2020	215
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW19	7/01/2020	210
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW19	1/04/2020	184
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW22	15/06/2020	203
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW23	15/06/2020	319
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW26	7/01/2020	181
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW26	15/06/2020	288
Redox Potential (Eh)	mV	DG_A_I_SW_DUSW27	15/06/2020	249
Temperature (Water)	°C	DG_A_I_SW_DUSW14	1/04/2020	17.1
Temperature (Water)	°C	DG_A_I_SW_DUSW17	7/01/2020	17.1
Temperature (Water)	°C	DG_A_I_SW_DUSW17	17/06/2020	14.3
Temperature (Water)	°C	DG_A_I_SW_DUSW19	7/01/2020	20.6
Temperature (Water)	°C	DG_A_I_SW_DUSW19	1/04/2020	18.2
Temperature (Water)	°C	DG_A_I_SW_DUSW22	15/06/2020	11.9
Temperature (Water)	°C	DG_A_I_SW_DUSW23	15/06/2020	12.7
Temperature (Water)	°C	DG_A_I_SW_DUSW26	7/01/2020	16.7
Temperature (Water)	°C	DG_A_I_SW_DUSW26	15/06/2020	12.1
Temperature (Water)	°C	DG_A_I_SW_DUSW27	15/06/2020	13.2
Turbidity	NTU	DG_A_I_SW_DUSW14	1/04/2020	42.3
Turbidity	NTU	DG_A_I_SW_DUSW17	7/01/2020	41
Turbidity	NTU	DG_A_I_SW_DUSW17	7/01/2020	77.2
Turbidity	NTU	DG_A_I_SW_DUSW17	17/06/2020	1100
Turbidity	NTU	DG_A_I_SW_DUSW17	17/06/2020	
Turbidity	NTU	DG_A_I_SW_DUSW19	7/01/2020	32

Variable	Unit	Sample Point	Date	Result
Turbidity	NTU	DG_A_I_SW_DUSW19	7/01/2020	33.4
Turbidity	NTU	DG_A_I_SW_DUSW19	1/04/2020	40
Turbidity	NTU	DG_A_I_SW_DUSW19	1/04/2020	45.4
Turbidity	NTU	DG_A_I_SW_DUSW22	15/06/2020	6.74
Turbidity	NTU	DG_A_I_SW_DUSW23	15/06/2020	310
Turbidity	NTU	DG_A_I_SW_DUSW26	7/01/2020	170
Turbidity	NTU	DG_A_I_SW_DUSW26	7/01/2020	164
Turbidity	NTU	DG_A_I_SW_DUSW26	15/06/2020	2700
Turbidity	NTU	DG_A_I_SW_DUSW27	15/06/2020	139

APPENDIX E

Important Information

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This Report constitutes or is part of services ("Services") provided by Golder to its client ("Client") under and subject to a contract between Golder and its Client ("Contract"). The contents of this page are not intended to and do not alter Golder's obligations (including any limits on those obligations) to its Client under the Contract.

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