REPORT

MCCARTHY QUARRY

2024 Permit To Take Water Compliance Report

Submitted to:

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Distribution List

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Table of Contents

FIGURES

APPENDICES

1.0 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Green Infrastructure Partners Aggregates Inc. (GIP) to prepare the annual Permit To Take Water (PTTW) report for the McCarthy Quarry (the Site) located in the Township of Ramara, County of Simcoe (Figure 1). The monitoring activities documented in this report were conducted as a requirement of Permit To Take Water (PTTW) No. 5184-CQ7MQS (the 'Permit'; Appendix A). The Permit is in place from January 31, 2020 to January 31, 2025, with an application of a Permit to Take Water Renewal submitted November 4, 2024 and the Acknowledgement Letter received November 5, 2024 (PTTW Ref # 6828-DAQVD2; Appendix A). Disposal of water from the Site is governed by Environmental Compliance Approval (ECA) No. ECA No. 7737-BH6QEA, issued on October 22, 2019.

2.0 PHYSICAL SETTING

2.1 Site Development and Land Use

The Site is located approximately six kilometres south-east of the Community of Brechin at Lot 1, Concession 1, Township of Ramara former Mara, Simcoe County (Figure 1). The Site began operations with the advancement of the sinking cut on March 15, 2013. Currently, the quarry floor is approximately 22 metres below (historic) ground level (mbgl) or 233 metres above sea level (masl). The current quarry footprint as of 2024 is approximately 16.18 ha (Figure 2). The ultimate quarry extent is expected to be approximately 30 ha.

Land use surrounding the Site is primarily rural, consisting of woodlots, pasture and scattered single-family homes. To the south and east along the Talbot River and Canal Lake are seasonal and year-round residences.

2.2 Geology

The elevation of the land the vicinity of the Site ranges from 250 masl to 255 masl, with the higher elevations on the western potion of the property. The overburden thickness on the Site ranges from 0.3 m in the north (OW9) to approximately 8 m in the south (OW4) (Figure 3 and Figure 4).

The quarry is located in a broad, arching, low relief upland area within a clay and limestone plain typical of the physiography to the east of Lake Simcoe (Chapman & Putman, 1984). Underlying the overburden material are Middle Ordovician aged limestone deposits including, from bedrock surface downward: the Verulam, Bobcaygeon and Gull River Formations.

The Verulam Formation consists of thinly bedded limestone and shale or shaley limestone and is relatively thin at the Site (0 to 4 m in thickness).

The Bobcaygeon Formation consists of thin to medium bedded limestones and ranges in thickness from approximately 31 m (OW6) to 40 m (OW9) (Figures 3 and 4). Quarrying at the Site is primarily within the Bobcaygeon Formation.

The Gull River Formation consists of fine grained limestone with minor interbeds of shale or shaley limestone with an approximate thickness of 16 m. The Gull River Formation remains intact at the Site.

2.3 Aquifers and Local Water Use

Overburden aquifer deposits within the vicinity of the Site, where sufficiently thick, likely provide sufficient water for domestic purposes as evidenced by the presence of dug and bored wells in the area. A review of measured overburden water levels suggests the flow system approximately mimics topographic trends and thus flow in a generally south to southeast direction towards the Talbot River.

Wells constructed in the bedrock are generally completed within the Bobcaygeon or Gull River Formations. As indicated above, quarrying at the Site is primarily within the Bobcaygeon Formation. The regional groundwater flow direction in the Bobcaygeon Formation is generally to the southwest towards Lake Simcoe (Figure 5).

The Ministry of Environment, Conservation and Parks (MECP) water well database was reviewed to identify accessible private water wells located in the vicinity of the Site. Nine wells, three dug and six drilled, were located within 1,000 m of Site. Seven wells are on Concession Road 1 and two wells are on the Mara-Eldon Boundary Road (Figure 1).

2.4 Quarry Dewatering

The Permit authorizes a maximum daily water taking volume of 6,544,800 L/day with a maximum of 250 days of taking. The maximum annual water taking is capped at 196,500,000 L/year.

Groundwater and precipitation entering the quarry is collected in a sump in the quarry floor originally located in the northwest corner of the quarry floor which collects groundwater and surface water (hereafter referred to as “quarry discharge”) accumulating at the base of the quarry. GIP finalized set-up of a new sump location in the southeast corner of the quarry floor in March 2022 and started utilized this new sump location for pumping in April 2022. The sump is equipped with a pump with a maximum discharge rate of 35 L/sec which is attached to a 4-inch (101 mm) diameter discharge line. On April 11, 2023, GIP staff replaced the pump with a rental from Sunbelt following issues with the previous pump and continues to be used while a permanent replacement is being worked on. This pump is rated for a maximum discharge rate of up to 1417 L/min (24 L/sec) and is attached to the discharge line. The water is pumped from the quarry floor up the quarry face via the discharge line to a 4-inch (101 mm) diameter pipeline that directs the water to a ditch that runs southward through the McCarthy property to the 14,000 m^3 settling pond. The water in the settling pond discharges via a Hickenbottom control structure to the roadside ditches along Concession Road 1. The water in the roadside ditch travels eastward along the north side of Concession Road 1 to a municipal drain and eventually discharges to the Talbot River, which in turn discharges to Lake Simcoe.

3.0 MONITORING PROGRAM AND RESULTS

The monitoring program for the Site, which is outlined in Section 4 of the Permit (Appendix A), directs GIP to record daily water takings, monitor groundwater levels in 22 monitoring wells and seven residential wells and analyze groundwater quality in select monitoring and residential wells. GIP is also required to maintain a publicly accessible internet site containing the required monitoring data and reporting and to establish a Public Liaison Committee (PLC) that is to meet once every four months unless the majority of the PLC decide that more or less frequent meetings are required.

3.1 Quarry Operations Update

The current quarry footprint is approximately 620 m by 260 m (16.18 hectares) with the ultimate limit of extraction (30 ha) shown in Figure 2. GIP staff reported there they resumed aggregate extraction as of 2021 after no extraction was completed in 2020.

3.2 Monitoring Condition 4.1: Water Level Monitoring of Sump

Condition 4.1 of the Permit stipulates that the water level in the quarry cannot be lowered below an elevation of 232.0 masl. GIP staff indicated the sump pump is installed such that water level in the quarry remains above 232.0 masl. The quarry floor is approximately 15 meters below ground level of 240 masl in the central and

northern portion of the quarry and approximately 23 meters below ground level or 232 masl in the southern portion of the quarry at the deeper lift where the sump pump for quarry has been located since 2022.

3.3 Monitoring Condition 4.2, 4.3 and 4.4: Groundwater Elevations

Water level monitoring has been ongoing at the Site since the early stages of quarry development in 2002. Both on-Site observation wells and off-Site residential wells have been incorporated into the monitoring program in order to meet the requirements of Conditions 4.2, 4.3 and 4.4 of the Permit. Groundwater elevation readings at the Site are collected through a combination of monthly manual water level measurements at all the wells, and pressure transducers installed in select wells for automated daily monitoring. The wells included in the 2024 monitoring program are listed in Table 1 and shown on Figure 1 and Figure 2.

Table 1: Groundwater Monitoring Locations and Measurement Frequency

	Daily Monitoring **	Monthly Monitoring
Monitoring Wells	OW4-1, OW4-2, OW5-1, OW6-1, OW6-2, OW8-3, OW9-2, Bored, CKL-1	AM1b, AMx-R, TW1-1, OW4-1, OW4-2, OW5-1, OW5-2, OW5-3, OW6-1, OW6-2, OW6-3, OW7-1, OW7-2, OW7-3, OW8-1, OW8-2, OW8-3, OW9-1, OW9-2, Bored, CKL-1 and CKL-2
Residential Wells	-	DW3, DW1, DW2, DW4, DW6*, DW7* and DW8*

*Monitored at least once every two months
**Daily monitoring completed with a pressure transducer

Table 3 presents the manual groundwater level readings collected at each of the monitoring locations. Groundwater hydrographs are presented in Figures 6 through 10 and include data from 2014 through 2024. Appendix B provides groundwater hydrographs at each of the wells over the period from 2006 through 2024. Due to the Covid-19 pandemic, private residential wells were not monitored between April and July of 2020. Starting in August of 2020, WSP attempted to contact each homeowner to confirm they still wanted to be included in the monitoring program during the Covid-19 pandemic. The homeowner of DW3 had previously requested they be contacted via telephone before each monitoring round. Permission to continue monitoring at DW7 was received in April 2021 and permission to continue monitoring at DW3 was received in June 2021.

In 2024 most of the monitoring wells displayed a pattern of rising groundwater levels through the spring period with subsequent decline in the summer. This pattern is consistent with historical behaviour at the Site. In addition, the measured maxima and minima of 2024 groundwater elevations were generally within historical ranges for most wells. Exceptions to historical trends include:

- Well DW4 (Overburden): The groundwater levels at DW4 have decreased slightly since 2018 in comparison to historical norms. It is noted the decline in water levels is most significant in the summer months. Groundwater levels increased at DW4 towards the end of 2021 and appears to have stabilized as of 2023 but with noted decreases during the late summer and fall season.
- Well AMx-R (Verulam Formation): Well AMx was monitored until April 2015 when it was removed due to the advance of the south quarry face. Well AMx-R was installed as a replacement for AMx along the western property boundary between the quarry face and OW4 in late 2017; groundwater level monitoring started in April 2018. Groundwater levels at AMx-R rose by approximately 10 m between April 2018 and June 2020; thereafter groundwater levels appeared to stabilize (Figure 7).

- Wells OW9-1 and OW9-2 (Bobcaygeon Formation): The groundwater level at OW9-1 has declined approximately 12 m since 2014 and the well at this location is now generally dry. The groundwater level at OW9-2 has declined approximately 15 m since 2014 (Figure 7). The groundwater level at this location has declined to near or below the bottom of the well.
- Well OW6-3 (Gull River Formation): Groundwater levels have risen by approximately 10 m since the start of 2014 and has relatively stabilized since then besides a small decrease in levels in the late months of 2023 (Figure 9).
- Well OW8-3 (Gull River Formation): Groundwater levels have declined by approximately 4 m at OW8-3 since the start of 2017 (Figure 9). Following this decline, water levels fluctuated in 2019 and 2020, but appear to have stabilized since July of 2020. However, it is to be noted that groundwater levels rose in 2023 to be a closer match with historic levels while in 2024 the levels have decreased slightly again to levels around the 2018 period.
- Well DW1 (Overburden): The groundwater level at DW1 has notably decreased steadily starting in July 2024. Similar wells located in the overburden (AM1B, OW5-1, Bored well) show a similar trend of decreasing levels in the summer through Fall of 2024 but recovery was noted starting in the November and December 2024 measurements. DW1 was unable to be measured in December due to the well lid freezing preventing it from being opened but no complaints have been issued by the resident due to the decreased water level in the well. It is to be noted that DW1 was able to be measured in February 2025 which showed in increase in water levels similar to the other overburden wells in the area.

A review of the results described above provides for the following inferences:

- Wells where the 2024 groundwater levels were consistent with historical trends are inferred to be beyond the influence of dewatering activities at the quarry. It is particularly noted that no private wells displayed evidence of quarry impact. Based on the water level monitoring results, drawdown is currently limited to a distance of not more than 150 m from the quarry face (see below comments on OW9).
- Well DW4: Given that this well is located approximately 760 m from the current quarry face, the lower groundwater levels noted during the summer months since 2018 are not considered to be related to quarrying operations but instead seasonal declines during the summer months.
- Well AMx-R: The gradual rise and stabilization of the groundwater levels at this well is attributed to the water level reaching “static” conditions following installation. The relatively long time period for stabilization is assumed to be due to the low conductivity of the surrounding bedrock.
- Well OW9-1 and OW9-2: the decline in water levels at both OW9-1 and OW9-2 is attributed to the on-going dewatering operations at the Site. OW9 was installed after extraction had begun at the quarry and as such there are no pre-extraction water level data. As noted in previous annual PTTW reports, the groundwater levels in OW9-1 and 9-2 began in 2014 and 2015, where the quarry advanced from 230m to 150m away from the well. The groundwater levels started to decline when the quarry face was at approximately 150m from the well. This is consistent with observations of drawdown at other quarries of this rock type. The groundwater level at this location for both OW9-1 and OW9-2 has declined to near or below the bottom of each well’s screen since 2016. It is to be noted that this water level has dropped under the 232.0 masl limit specified in monitoring condition 4.1 since 2015 (Figure 4 and Appendix B). However, this groundwater level in the well appears to be anomalous in this area since the quarry floor depth and sump pump had not reached this depth during this earlier period or had responded from the movement of the quarry sump pump

from the Northwest corner to the Southeast corner of the quarry in 2022 suggesting the change in water level at that well is not necessarily responding to quarry dewatering but potentially a response to a change in the bedrock where the deeper screen of OW9-2 is installed in. As a result of this anomalous water level data at OW9-2 and a lack of similar response at the other wells installed in the Bobcaygeon formation (Figure 8) OW9-2 may be screening a fracture that is connected to the quarry excavation in this area.

- Wells OW6-3 and OW8-3: each of these wells are completed in the Gull River Formation, which is located more than 30 m below the current quarry floor. Based on the vertical separation and the presence of (thin) shale and shaley limestone layers within the formation it is assumed that the Gull River Formation is hydraulically isolated from the quarry dewatering operations and the measured water level fluctuations are unrelated to quarry development.
- Well DW1: The well is located approximately 780 meters from the current quarry face. Based off similar wells in the area located in the overburden such as OW5-1, Bored well, and AM1b that are located closer to the current quarry face that showed similar decline through summer into fall of 2024 before recovering in November and December of 2024. It is likely that the lower water level at DW1 is related to seasonal declines during the summer months and would be expected to follow similar recovering trends seen in OW5-1, Bored well, and AM1B in December. The water level was unable to be measured in December of 2024 due to the well lid freezing preventing access. The water level was able to be measured in February 2025, which showed a rise in water level similar to the other overburden wells in the area.

3.4 Monitoring Condition 4.5 and 4.6: Groundwater Quality

Groundwater quality sampling is typically conducted on a semi-annual basis at both on-Site monitoring wells and off-Site residential wells. No sampling was completed at OW5-2 in 2020 (and until June 2021) as a result of a suspected pipe offset. GIP staff had planned to repair this OW5-2 before the end of 2020, however access to well was limited due to implement weather and repair of OW5-2. The repair was completed in the June 2021 and two samples at OW5-2 were collected in 2022 and continues to be sample on the semi-annual basis in 2024. OW9-1 has been unable to be sampled due to being dry since late 2015 and OW9-2 has had insufficient water column remaining to be sampled on a consistent basis. A summary of the sampled parameters and the wells included in the sampling program are provided in Table 2.

Table 2: Groundwater Quality Sampling Program

	Monitoring Locations	Water Quality Parameters
Monitoring Wells	AM1b, AMx, TW1-1, Bored, OW4-1, OW4-2, OW5-1, OW5-2, OW5-3, OW6-2, OW7-1, OW7-2, OW8-1, OW8-2, OW9-1, and OW9-2	pH, alkalinity, bicarbonate, fluoride, chloride, magnesium, calcium, sodium, potassium, ammonia, sulphate, nitrate, nitrite, phosphate, phosphorous, conductivity, DOC, colour, TDS, hardness
Residential Wells	DW1, DW2 and DW3	pH, alkalinity (CaCO3), bicarbonate, conductivity, fluoride, chloride, nitrate, nitrite, chromium, tannins, sulphate, magnesium, calcium, sodium, potassium, ammonia (N), phosphate, phosphorous, anion sum, cation sum, DOC, colour, turbidity, aluminium, arsenic, barium, boron, cadmium, ion ratio, % difference, copper, iron, lead, manganese, selenium, zinc, hardness (CaCO3), TDS (iron sum calc.), Langelier Index

The laboratory analytical results for the 2024 sampling events are provided in Appendix C, and the results are summarized in Table 4 (Residential Wells) and Table 5 (Monitoring Wells). Tables 4 and 5 provide a comparison of the laboratory results to Ontario Drinking Water Standards (ODWS).

The water quality at residential wells DW1, DW2 and DW3 met the ODWS for the 2024 sampling events for the parameters tested with the exception of total dissolved solids (TDS) at DW1 and hardness (as $CaCO_3$) at all three locations. None of these exceedances are attributed to the effects of the dewatering activities but are instead considered a reflection of background water quality (see below).

The water quality at the on-Site monitoring wells for the 2023 sampling events, notably elevated hardness and TDS, was consistent with the pre-quarry conditions (Whitewater Hydrogeology Ltd., 2013). In addition, dissolved sodium and chloride continue to be present in elevated levels across most of the on-Site monitoring wells. AMx-R also continues to show a decreased pH level compared to the rest of the on-site monitoring wells. Colour remains elevated at OW5-II, OW5-III, OW7-I, and AMx-R. Lastly dissolved Sulphate remains elevated at OW6-II since 2015.

3.5 Monitoring Condition 4.8 Water Taking Measurements and Reporting

The rate and volume of groundwater extraction and discharge from the quarry are provided to WSP by McCarthy Quarry staff. The pumping records for January 2024 to December 2024 are presented in Table 6. The daily discharge rate (L/min) between January 1, 2024 and December 31, 2024, ranged from 0 to 850,200 L/day (Table 6). These water taking rates were below the permitted rate of 4,545 L/min (6,544,800 L/day). The total volume of water removed (27,291,420 L) was less than the maximum taking of 196,500,000 L/year. Pumping was conducted on a total of 36 days in 2024, which was less than the maximum of 250 days per year. The predicted dewatering activities over the next twelve months are expected to remain consistent with those in 2024.

The McCarthy Quarry dewatering system includes a sump located in the northwest corner of the quarry floor which collects groundwater and surface water (hereafter referred to as “quarry discharge”) accumulating at the base of the quarry. The sump is equipped with a pump which is rated for a maximum discharge rate of up to 2,100 L/min (35 L/sec) and is attached to a discharge line. On April 11, 2023, GIP staff replaced the pump with a rental from Sunbelt following issues with the previous pump and continues to be used while a permanent replacement is being worked on as previously discussed in section 2.4. This pump is rated for a maximum discharge rate of up to 1417 L/min (24 L/sec) and is attached to the discharge line. The water is pumped from the quarry floor up the quarry face via the discharge line to a 4-inch (101 mm) diameter pipeline that directs the water to a ditch that runs southward through the McCarthy property to the 14,000 m^3 settling pond. Water is pumped from the quarry floor up the quarry face via the discharge line to a pipeline that directs the water to a 14,000 m^3 settling pond (Figure 1). GIP finalized set-up of a new sump location in March 2022 and started utilized this new sump location for pumping in April 2022. The initial sump location was creating operational issues as GIP was not able to properly dewater the southern portion of the quarry. In addition, the previous set up was very inefficient due to the length of piping required from the sump to the horse-shoe shaped settling pond. GIP has also adjusted the discharge piping that runs from the pump to the horse-shoe shaped settling pond. No changes were made to the discharge pond. The settling pond is equipped with a Hickenbottom control structure via which the water discharges to the roadside ditch along Concession Road 1. The water flows eastward along the north side of Concession Road 1 to a municipal drain and eventually discharges to the Talbot River approximately 1.1 km downstream of the Quarry, which eventually discharges into Lake Simcoe.

The proportion of surface water and groundwater contributions to quarry inflow may be inferred by performing a simple water budget. First, the total surface water contribution to the quarry is estimated by calculating the direct surplus contribution over the 16.18 ha quarry area plus the additional contributing runoff from the surrounding 5 ha catchment area (i.e., the stripped area). A surplus value of 501 mm/yr for the quarry footprint and runoff value of 250 mm/yr for the stripped area was applied based on meteorological data from the Meteorological Service of Canada Thornthwaite water budgets (Orillia Brain MET station in Orillia, Ontario between 1993 to 2016).

The volume of water entering the quarry from direct surplus was calculated as 81,061,800 L and the volume of water entering the quarry from surrounding runoff was calculated as 12,500,000 L; thus the total contribution of surface water to the overall water taking was approximately 93,561,800 L. As the total volume of water pumped form the quarry from January 1 to December 31, 2024 was 27,291,420 L, it is inferred that the reduced pumping volumes were due to lower contribution of surface water to the quarry and the possibility of a difference in precipitation averages than estimated. The change in pumping rates and volumes from the new sump location will continue to be evaluated based on future monitoring at this stage.

3.6 Condition 4.11 Publicly Accessible Internet Site

The water quality and quantity monitoring data that is required by the PTTW is available at: McCarthy Quarry – Green Infrastructure Partners (gipi.com)

3.7 Condition 4.12 Public Liaison Committee

A Public Liaison Committee has been maintained and one meeting in September 2024 was held.

4.0 CONCLUSIONS

Based on the 2024 Monitoring Program established under PTTW No. 5184-CQ7MQS, the following is concluded:

- In 2024. most of the monitoring wells displayed a pattern of rising groundwater levels through the spring period with subsequent decline in the summer into early fall. This pattern is consistent with historical trends at the Site.
- Wells where the 2024 groundwater levels were consistent with historical trends are inferred to be beyond the influence of dewatering activities at the quarry. It is particularly noted that no private wells displayed evidence of quarry impact. Based on the water level monitoring results, observable drawdown is currently limited to a distance of not more than 150 m from the quarry face.
- The daily discharge rate between January 1, 2024 and December 31, 2024, ranged from 0 to 850,200 L/day, which is below the permitted rate of 6,544,800 L/day. The total volume of water removed (27,291,420 L) was less than the maximum taking of 196,500,000 L/year.

5.0 LIMITATIONS AND USE OF REPORT

The services performed as described in this report were conducted in a manner consistent with the level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services.

Any use which a third party makes this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report is based on data and information collected during the hydrogeological and hydrological assessment of the Site conducted by WSP. The assessment is based solely on the Site conditions encountered at the time of the assessment, supplemented by other information and data obtained by WSP as described in this report. No assurance is made regarding changes in conditions at the Site subsequent to the time of the assessment. Furthermore, and as with all subsurface investigations, this study necessarily utilizes information at a relatively small number of discrete locations (for example, monitoring wells) to infer geologic and groundwater conditions across the Site and for areas where no such information exists.

In evaluating the Site, WSP has, in part, relied in good faith on information provided by GIP and their agents. WSP has assumed that the information is factual and accurate. No responsibility is accepted by WSP for any deficiencies, misstatements or inaccuracies contained in this report as a result of errors, omissions, misinterpretations or misrepresentations related to the information provided by GIP and their agents.

6.0 CLOSURE

In closure, we recommend that the groundwater monitoring continue as outlined in PTTW No. 5184-CQ7MQS. We trust that this report meets your needs at the present time. If you have any questions or require clarification, please do not hesitate to contact the undersigned.

Signature Page

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https://wsponlinecan.sharepoint.com/sites/ca-ca00236338620/shared documents/06. deliverables/pttw 2024 annual/ca0023633.8620-r-rev0-2024 pttw annual report-27feb2025 final.docx

Tables

Well	Unit	Elevation (masl)	Stick up (m)	31-Jan-24	23-Feb-24	28-Mar-24	12-Apr-24	16-May-24	28-Jun-24	29-Jul-24	26-Aug-24	25-Sep-24	22-Oct-24	26-Nov-24	19-Dec-24
				Water Levels (mbgl)											
DW3	Verulam	246.52	0.46	3.67	2.27	2.59	2.2	2.45	2.7	5.9	3.7	3.57	4.25	3.78	2.81
OW4-1	Verulam	249.57	0.88	3.85	3.61	3.82	3.53	3.75	3.91	4.01	4.31	4.6	4.73	4.76	4.2
OW4-2	Bobcaygeon	249.62	0.86	3.84	3.65	3.79	3.54	3.76	3.87	4.05	4.21	4.58	4.72	4.76	4.2
Bored	Overburden	248.86	0.66	1.06	1.1	1.18	1	1.24	1.23	1.78	1.92	2.42	2.67	2.48	1.24
OW6-1	Verulam	247.60	0.61	1.83	1.7	1.85	1.53	1.75	1.89	2.05	2.31	2.6	2.76	2.78	2.21
OW6-2	Bobcaygeon	247.52	0.53	2.36	2.44	2.44	2.07	2.14	2.44	2.63	3.84	2.94	3.01	2.93	2.63
OW6-3	Gull River	247.46	0.47	4.55	4.45	4.36	4.33	4.08	4.11	4.13	3.87	3.91	3.86	3.85	3.81
DW4	Overburden	250.19	0.24	1.3	1.53	1.24	0.55	1.24	1.25	2.8	3.16	4.92	3.63	3.34	Lid frozen
DW1	Overburden	249.83	0.3	0.91	1.16	1.46	0.86	1.29	1.07	2.2	2.77	3.54	4.18	5.26	Lid frozen
OW5-1	Overburden	249.84	0.8	1.41	1.44	1.55	1.26	1.58	1.52	2.07	2.13	2.81	2.83	2.51	1.52
OW5-2	Bobcaygeon	249.76	1.0	0.77	1	0.85	0.76	0.9	0.94	1.3	1.46	1.86	1.61	1.7	0.98
OW5-3	Bobcaygeon	249.70	1.0	0.86	0.64	0.81	0.58	0.86	0.91	1.29	1.22	1.37	1.5	1.83	1.02
DW2	Overburden	247.50	0.8	1.69	1.63	1.68	1.53	1.71	1.65	2.1	2.37	3.07	3.31	3.22	Lid frozen
DW7	Overburden		0.32	0.48	0.68	0.82	0.58	1.13	1.29	1.53	1.79	2.9	3.12	2.47	Lid frozen
DW8	Overburden			2.8	2.95	2.92	1.54	2.98	3.05	3.8	3.32	3.89	4.07	3.91	3.42
DW6	Overburden		0.5	3.12	3.81	2.93	2.99	2.82	3.08	3.26	3.9	2.53	3.02	2.79	2.86
OW7-1	Verulam	249.80	0.62	At Surface	At Surface	At Surface	At Surface	At Surface	0.89	1.06	1.72	2.08	2.4	2.38	Flowing
OW7-2	Bobcaygeon	249.78		At Surface	At Surface	At Surface	At Surface	At Surface	0.55	0.76	1.59	2.05	2.415	2.39	Flowing
OW7-3	Gull River	249.74	0.61	3.08	3.19	3.25	2.78	3.17	3.29	3.55	3.78	4.27	4.6	4.48	4.1
OW8-1	Verulam	251.47	0.76	0.7	0.7	0.71	0.19	1.24	0.84	2.08	2.71	3.47	3.8	3.73	1.27
OW8-2	Bobcaygeon	251.44	0.83	0.61	0.59	0.67	0.04	0.75	0.6	Dry	Dry	Dry	Dry	Dry	0.78
OW8-3	Gull River	251.40	0.8	7.93	7.9	8.18	7.76	7.94	8.57	8.37	8.71	8.87	8.81	8.85	9.19
TW1-1	Bobcaygeon	254.10	0.6	3.82	3.87	3.92	3.6	3.82	3.76	5.22	5.84	6.81	7.19	7.44	3.9
TW1-2	Precambrian	254.10	0.52	10.62	10.05	10.18	9.63	9.5	9.84	10.05	10.38	10.5	9.36	10.77	10.61
OW9-1	Bobcaygeon	253.40	0.41	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW9-2	Bobcaygeon	253.31	0.35	25.16	25.18	25.12	25.08	25.1	25.08	25.15	25.16	25.09	25.1	25.09	25.08
CKL-1	Verulam		0.6	1.22	1.23	1.28	1.25	1.4	1.58	2.31	2.41	2.41	2.47	2.35	1.42
CKL-2	Bobcaygeon		0.65	F @ 0.21	0.25	0.28	0.16	0.23	0.31	0.58	0.72	0.92	1	1.06	F @ 0.1
AM1b	Overburden	249.45	0.2	1.15	1.21	1.27	1.17	1.29	1.32	1.9	2.09	2.52	2.8	2.81	1.34
AMX-R	Verulam			4.05	3.91	3.91	3.91	3.93	4.02	4.07	4.28	4.69	4.57	4.94	4.6

Notes:

1. Highlighted cells represent groundwater measurements in terms of meters above sea level (masl)

2. Not Accessible (NA)

3. Not Measured (NM)

		Sample	DW1								
		Date	30-Oct-20	07-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
		ODWS									
Anion Sum	Sum		12.8	7.21	13.4	x[1]	15.3	13	14.8	11.9	13.6
Bicarb. Alkalinity (calc. as CaCO3)	mg/L		320	260	330	330	340	330	340	350	350
Calculated TDS	mg/L	500 (AO)	**700**	380	**730**	x[1]	**850**	**720**	**820**	**650**	**740**
Cation Sum	Sum		13.7	7.12	13.7	x[1]	16.8	14.1	15.9	12.7	14.1
Hardness (CaCO3)	mg/L	80-100 (OG)	**580**	**320**	**570**	**580**	**690**	**590**	**650**	**510**	**570**
Ion Balance (% Difference)	%		3.33	0.630	1.29	x[1]	4.68	4.29	3.38	3.5	1.85
Langelier Index (@ 20C)	NA		0.977	0.983	1.20	x[1]	0.862	1.01	0.809	1.05	1.03
Langelier Index (@ 4C)	NA		0.73	0.734	0.949	x[1]	0.616	0.764	0.563	0.8	0.7799
Saturation pH (@ 20C)	NA		6.76	6.96	6.74	x[1]	6.68	6.73	6.7	6.76	6.75
Saturation pH (@ 4C)	NA		7.01	7.21	6.99	x[1]	6.92	6.98	6.95	7.01	6.99
Total Ammonia-N	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.13	<0.050
Colour	TCU	5 (AO)	<2	**8**	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm		1300	680	1400	1500	1500	1400	1600	1200	1400
Fluoride (F-)	mg/L	1.5	0.12	<0.10	<0.10	<0.10	<0.10	0.1	<0.10	<0.10	0.13
Dissolved Organic Carbon	mg/L	5 (AO)	1.2	3.2	1.1	1.5	1.4	1.4	1.1	1.5	1.3
Orthophosphate (P)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	6.5-8.5 (OG)	7.74	7.95	7.94	7.55	7.54	7.74	7.51	7.81	7.77
Dissolved Sulphate (SO4)	mg/L	500 (AO)	29	8.6	30	28	32	25	28	25	35
Tannins & Lignins	mg/L		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Turbidity	NTU	5	0.2	0.6	0.3	0.1	0.2	1.1	0.2	0.5	0.3
Alkalinity (Total as CaCO3)	mg/L	30-500 (OG)	320	270	330	330	340	330	350	350	350
Dissolved Chloride (Cl)	mg/L	250 (OG)	200	59	220	**250**	**270**	210	**260**	160	210
Nitrite (N)	mg/L	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	10	<0.10	0.47	0.25	0.29	0.23	0.18	0.1	0.14	0.25
Nitrate + Nitrite	mg/L	10	<0.10	0.47	0.25	0.29	0.23	0.18	0.1	0.14	0.25
Dissolved Aluminum (Al)	mg/L	0.1 (OG)	<0.005	0.014	<0.0049	<0.0049	0.0058	<0.0049	<0.0049	<0.0049	<0.0049
Dissolved Antimony (Sb)	ug/L	6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.50	<0.50
Dissolved Arsenic (As)	ug/L	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<1.0	<1.0
Dissolved Barium (Ba)	ug/L	1000	180	63	190	180	210	190	210	150	180
Dissolved Beryllium (Be)	ug/L		<0.40	<0.40	<0.40	<0.40	<0.40	<0.4	<0.40	<0.40	<0.40
Dissolved Boron (B)	ug/L	5000	39	11	41	22	48	55	41	35	54
Dissolved Cadmium (Cd)	ug/L	5	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Calcium (Ca)	mg/L		170	110	180	170	210	180	190	160	160
Dissolved Chromium (Cr)	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dissolved Cobalt (Co)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
Dissolved Copper (Cu)	ug/L	1000 (AO)	44	1.7	43	39	25	36	25	26	38
Dissolved Iron (Fe)	mg/L	0.3 (AO)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Lead (Pb)	ug/L	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.50	<0.5
Dissolved Magnesium (Mg)	mg/L		36	10	33	30	42	34	40	28	39
Dissolved Manganese (Mn)	ug/L	50 (AO)	**240**	<2.0	44	20	35	20	70	77	7.9
Dissolved Molybdenum (Mo)	ug/L		0.64	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.5
Dissolved Nickel (Ni)	ug/L		<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Potassium (K)	mg/L		2.2	1.3	2.1	1.5	2.2	1.8	2.2	1.9	2.6
Dissolved Selenium (Se)	ug/L	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2.0	<2.0	<2.0
Dissolved Silicon (Si)	mg/L		8.8	3.9	8.5	6.6	9.8	7.5	9.1	7.4	9.7
Dissolved Silver (Ag)	ug/L		<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Sodium (Na)	mg/L	200 (OG)	47	15	51	44	66	51	66	58	60
Dissolved Strontium (Sr)	mg/L		0.68	0.28	0.61	0.56	0.67	0.64	0.67	0.52	0.62
Dissolved Thallium (Tl)	mg/L		<0.00005	<0.00005	<0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Dissolved Titanium (Ti)	ug/L		<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5.0	<5.0	<5.0
Dissolved Uranium (U)	mg/L	0.02	0.0015	0.00064	0.0015	0.0013	0.0015	0.0014	0.0014	0.0011	0.0014
Dissolved Vanadium (V)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.50	<0.50
Dissolved Zinc (Zn)	ug/L	5000 (AO)	18	<5.0	34	20	10	26	17	22	16

Notes:
AO: aesthetic objective
OG: operational guideline
x[1] Broken bottle during transport

		Sample	DW2								
		Date	30-Oct-20	07-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
		ODWS									
Anion Sum	Sum		8.5	8.53	8.49	8.5	9.04	6.84	6.61	7.48	6.9
Bicarb. Alkalinity (calc. as CaCO3)	mg/L		330	340	370	360	330	310	300	350	310
Calculated TDS	mg/L	500 (AO)	460	450	450	450	500	380	360	400	410
Cation Sum	Sum		8.93	8.48	8.46	8.73	9.93	7.77	7.4	7.98	8.87
Hardness (CaCO3)	mg/L	80-100 (OG)	**400**	**390**	**380**	**390**	**450**	**350**	**340**	**370**	**350**
Ion Balance (% Difference)	%		2.43	0.320	0.160	1.36	4.68	6.35	5.64	3.23	12.5
Langelier Index (@ 20C)	NA		0.989	1.04	1.02	0.969	0.987	1.06	0.913	1.07	1.13
Langelier Index (@ 4C)	NA		0.741	0.794	0.771	0.720	0.740	0.814	0.665	0.818	0.879
Saturation pH (@ 20C)	NA		6.83	6.79	6.79	6.77	6.83	6.86	6.91	6.8	6.9
Saturation pH (@ 4C)	NA		7.08	7.04	7.04	7.02	7.08	7.11	7.16	7.05	7.15
Total Ammonia-N	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.17	<0.050
Colour	TCU	5 (AO)	3	4	3	2	<2	3	<2	2	<2
Conductivity	uS/cm		820	780	760	800	780	670	620	670	650
Fluoride (F-)	mg/L	1.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Organic Carbon	mg/L	5 (AO)	2.8	3.6	2.8	3.2	1.8	2.6	1.6	2.7	2.1
Orthophosphate (P)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.022
pH	units	6.5-8.5 (OG)	7.82	7.83	7.81	7.74	7.82	7.93	7.82	7.86	8.03
Dissolved Sulphate (SO4)	mg/L	500 (AO)	31	28	26	28	68	16	13	16	14
Tannins & Lignins	mg/L		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Turbidity	NTU	5	0.5	0.2	0.3	0.3	0.8	0.3	0.2	0.2	1.6
Alkalinity (Total as CaCO3)	mg/L	30-500 (OG)	340	340	370	360	330	310	300	350	310
Dissolved Chloride (Cl)	mg/L	250 (OG)	41	41	17	23	35	8.4	9.4	4.8	12
Nitrite (N)	mg/L	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	10	<0.10	<0.10	<0.10	<0.10	0.19	0.16	0.18	0.43	0.16
Nitrate + Nitrite	mg/L	10	<0.10	<0.10	<0.10	<0.10	0.19	0.16	0.18	0.43	0.16
Dissolved Aluminum (Al)	mg/L	0.1 (OG)	<0.005	0.0067	<0.0049	<0.0049	0.007	<0.0049	<0.0049	<0.0049	<0.0049
Dissolved Antimony (Sb)	ug/L	6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Arsenic (As)	ug/L	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium (Ba)	ug/L	1000	69	56	71	66	86	59	53	59	52
Dissolved Beryllium (Be)	ug/L		<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Dissolved Boron (B)	ug/L	5000	19	21	22	27	19	42	23	25	35
Dissolved Cadmium (Cd)	ug/L	5	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Calcium (Ca)	mg/L		130	140	120	130	130	120	110	130	110
Dissolved Chromium (Cr)	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dissolved Cobalt (Co)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
Dissolved Copper (Cu)	ug/L	1000 (AO)	<0.90	<0.90	1.7	1.3	2.4	2.7	1.5	1.9	5.4
Dissolved Iron (Fe)	mg/L	0.3 (AO)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Lead (Pb)	ug/L	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	5.1
Dissolved Magnesium (Mg)	mg/L		20	11	16	15	29	12	15	11	17
Dissolved Manganese (Mn)	ug/L	50 (AO)	4.8	3.7	5.1	19	50	8.8	13	11	7.5
Dissolved Molybdenum (Mo)	ug/L		0.71	<0.50	<0.50	<0.50	0.56	<0.5	<0.50	<0.50	<0.50
Dissolved Nickel (Ni)	ug/L		<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1	<0.1	5.1
Dissolved Potassium (K)	mg/L		4.4	5.3	7.9	7.2	5.9	7.7	4.9	6.7	6.8
Dissolved Selenium (Se)	ug/L	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Silicon (Si)	mg/L		6.1	3.8	5.9	4.2	7.7	3.46	6.4	4.3	7.2
Dissolved Silver (Ag)	ug/L		<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Sodium (Na)	mg/L	200 (OG)	19	13	17	15	19	14	13	11	40
Dissolved Strontium (Sr)	mg/L		0.35	0.31	0.33	0.34	0.44	0.37	0.3	0.3	0.33
Dissolved Thallium (Tl)	mg/L		<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0005
Dissolved Titanium (Ti)	ug/L		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dissolved Uranium (U)	mg/L	0.02	0.00043	0.00031	0.00034	0.00036	0.00072	0.0003	0.00033	<0.0005	0.00023
Dissolved Vanadium (V)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Zinc (Zn)	ug/L	5000 (AO)	<5.0	<5.0	5.4	<5.0	11	13	6.1	<5.0	16

Notes:
AO: aesthetic objective
OG: operational guideline
x[1] Broken bottle during transport

		Sample	MOE 5727662 (DW3)							
		Date	29-Jun-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
		ODWS								
Anion Sum	Sum		11.1	8.53	8.69	8.81	8.03	8.21	8.15	8.08
Bicarb. Alkalinity (calc. as CaCO3)	mg/L		320	230	220	240	230	230	230	230
Calculated TDS	mg/L	500 (AO)	**620**	450	480	490	450	450	450	440
Cation Sum	Sum		12.5	8.13	9.2	9.58	8.55	8.63	8.55	8.25
Hardness (CaCO3)	mg/L	80-100 (OG)	**530**	**180**	**200**	**190**	**180**	**190**	**190**	**170**
Ion Balance (% Difference)	%		5.85	2.43	2.88	4.19	3.15	2.45	2.39	1
Langelier Index (@ 20C)	NA		0.955	0.478	0.426	0.574	0.624	0.41	0.571	0.573
Langelier Index (@ 4C)	NA		0.708	0.230	0.178	0.326	0.376	0.162	0.322	0.325
Saturation pH (@ 20C)	NA		6.77	7.60	7.59	7.56	7.58	7.59	7.57	7.6
Saturation pH (@ 4C)	NA		7.02	7.85	7.83	7.81	7.83	7.83	7.82	7.85
Total Ammonia-N	mg/L		<0.050	0.38	0.42	0.31	0.41	0.12	<0.050	0.39
Colour	TCU	5 (AO)	2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm		1100	870	930	890	880	860	850	840
Fluoride (F-)	mg/L	1.5	0.16	0.75	0.75	0.80	0.75	0.7	0.76	0.81
Dissolved Organic Carbon	mg/L	5 (AO)	1.5	0.41	<0.4	0.51	0.55	0.51	0.52	0.78
Orthophosphate (P)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0010	<0.010	<0.010
pH	units	6.5-8.5 (OG)	7.72	8.08	8.01	8.14	8.21	8	8.14	8.18
Dissolved Sulphate (SO4)	mg/L	500 (AO)	20	5.2	4.7	2.5	4.6	2.5	5.3	1.8
Tannins & Lignins	mg/L		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Turbidity	NTU	5	0.1	<0.1	0.4	0.3	0.6	0.2	0.4	<0.1
Alkalinity (Total as CaCO3)	mg/L	30-500 (OG)	320	230	220	240	230	230	230	230
Dissolved Chloride (Cl)	mg/L	250 (OG)	150	130	140	140	120	120	120	120
Nitrite (N)	mg/L	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	10	0.21	<0.10	<0.10	<0.10	<0.10	<0.1	<0.10	<0.10
Nitrate + Nitrite	mg/L	10	0.21	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1
Dissolved Aluminum (Al)	mg/L	0.1 (OG)	0.009	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
Dissolved Antimony (Sb)	ug/L	6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Arsenic (As)	ug/L	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium (Ba)	ug/L	1000	160	210	210	220	200	200	200	190
Dissolved Beryllium (Be)	ug/L		<0.40	<0.40	<0.40	<0.40	<0.4	<0.40	<0.40	<0.40
Dissolved Boron (B)	ug/L	5000	24	800	750	870	880	770	750	820
Dissolved Cadmium (Cd)	ug/L	5	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Calcium (Ca)	mg/L		160	31	34	33	33	32	33	31
Dissolved Chromium (Cr)	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dissolved Cobalt (Co)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Copper (Cu)	ug/L	1000 (AO)	1.3	2.4	0.94	1.8	1.6	<0.90	<0.90	0.9
Dissolved Iron (Fe)	mg/L	0.3 (AO)	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1
Dissolved Lead (Pb)	ug/L	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Magnesium (Mg)	mg/L		29	24	27	25	25	26	26	22
Dissolved Manganese (Mn)	ug/L	50 (AO)	19	4.6	5.2	3.6	5	4.8	6.5	5
Dissolved Molybdenum (Mo)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Nickel (Ni)	ug/L		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Potassium (K)	mg/L		1.9	6.9	7.3	7.6	6.8	6.7	7.2	7.1
Dissolved Selenium (Se)	ug/L	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Silicon (Si)	mg/L		7.3	5.3	5.5	5.8	5.8	5.4	6.1	5.2
Dissolved Silver (Ag)	ug/L		<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Dissolved Sodium (Na)	mg/L	200 (OG)	44	100	120	130	110	110	110	110
Dissolved Strontium (Sr)	mg/L		0.61	2.2	2.4	2.5	2.3	2.4	2.2	2.1
Dissolved Thallium (Tl)	mg/L		<0.00005	<0.00005	<0.000050	<0.000050	<0.00005	<0.00005	<0.00005	<0.0005
Dissolved Titanium (Ti)	ug/L		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dissolved Uranium (U)	mg/L	0.02	0.0012	<0.0001	<0.00010	<0.00010	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Vanadium (V)	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Zinc (Zn)	ug/L	5000 (AO)	<5.0	10	5.1	41	13	7.2	6.4	220

Notes:
AO: aesthetic objective
OG: operational guideline
x[1] Broken bottle during transport

		Sample	AM1B										BORED WELL									
		Date	14-May-20	30-Oct-20	06-May-21	21-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	14-May-20	30-Oct-20	06-May-21	21-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																				
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		230	240	220	250	240	280	230	270	260	240	280	270	270	230	250	270	260	240	280	270
Total Ammonia-N	mg/L		0.11	0.088	<0.050	0.19	0.096	0.094	0.190	0.084	0.064	0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.078
Colour	TCU	**5 (AO)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm		500	499	496	448	520	550	500	570	550	530	570	562	551	461	530	550	540	510	580	570
Total Dissolved Solids	mg/L	**500 (AO)**	290	300	300	320	310	350	300	340	320	310	330	330	320	290	310	350	320	310	340	350
Fluoride (F-)	mg/L	**1.5**	0.23	0.22	0.21	0.24	0.23	0.20	0.20	0.21	0.19	0.22	0.13	0.13	0.15	0.13	0.12	0.14	0.11	0.12	0.13	0.12
Dissolved Organic Carbon	mg/L	**5 (AO)**	0.7	1.2	0.62	0.80	0.75	0.81	0.69	0.62	0.74	0.74	0.92	1.0	1.0	1.1	1.0	0.98	1.0	1.10	1.10	1.40
Hardness	mg/L	**80-100 (OG)**	**240**	**250**	**250**	**260**	**270**	**320**	**250**	**310**	**290**	**270**	**270**	**270**	**270**	**220**	**260**	**300**	**260**	**240**	**290**	**290**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016
pH	units	**6.5-8.5 (OG)**	7.97	7.85	8.09	7.90	7.91	7.96	8.12	7.99	8.03	8.05	7.98	8.00	8.18	8.24	8.02	8.12	8.22	8.27	8.02	8.26
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	39	40	43	43	39	33	47	36	35	41	28	28	31	28	32	32	36	30	29	31
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	230	240	220	250	240	280	230	280	260	240	290	280	270	240	260	280	270	250	290	280
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	1.5	2.5	1.8	2.2	1.7	1.8	<1.0	<1.0	<1.0	1.6	1.4	1.9	2.5	2.4	1.6	1.7	<1.0	<1.0	<1.0	2.1
Nitrite (N)	mg/L	**1**	<0.010	<0.010	0.010	0.023	<0.010	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<0.10
Nitrate (N)	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	0.26	0.22	0.35	0.24	0.18	0.18	0.27	0.18	0.34
Nitrate + Nitrite	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	0.26	0.22	0.35	0.24	0.18	0.18	0.27	0.18	0.34
Dissolved Calcium (Ca)	mg/L		47	47	49	52	53	67	50	63	60	55	63	62	62	47	58	69	60	54	68	67
Dissolved Magnesium (Mg)	mg/L		31	32	32	32	33	37	30	41	34	34	28	28	29	25	27	31	27	27	29	29
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.3
Dissolved Potassium (K)	mg/L		2.2	2.3	2.3	2.4	2.3	2.6	2.1	2.5	2.3	2.4	5.0	6.2	5.4	8.7	4.7	0.11	4.3	8.10	4.20	6.00
Dissolved Sodium (Na)	mg/L	**200 (AO)**	6.0	7.0	6.8	7.0	6.2	5.9	5.9	6.1	5.2	6.4	12	16	13	21	14	20	14	20	16	24

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW4-I										OW4-II									
		Date	14-May-20	30-Oct-20	06-May-21	21-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	14-May-20	30-Oct-20	06-May-21	30-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																				
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		220	220	220	260	240	220	210	260	230	210	240	240	250	250	250	240	240	250	240	250
Total Ammonia-N	mg/L		0.98	1.3	1.2	1.2	1.0		0.7	1.6	1.5	0.8	1	1.1	0.95	0.94	0.95	1.30	1.10	1.20	1.10	1.20
Colour	TCU	**5 (AO)**	<2	<2	<2	<2	<2	<2	<2	4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Conductivity	uS/cm		1300	1390	1220	1160	1200	1200	1100	1300	1400	1400	1500	1740	1470	1280	1400	1700	1700	1800	1600	1700
Total Dissolved Solids	mg/L	**500 (AO)**	**670**	**720**	**630**	**670**	**640**	**630**	**590**	**730**	**750**	**730**	**740**	**880**	**780**	**770**	**710**	**960**	**850**	**920**	**840**	**900**
Fluoride (F-)	mg/L	**1.5**	1	0.99	1.1	1.1	1.2	1.1	1.0	0.9	1.0	1.0	1	0.91	1.0	1.0	1.2	0.95	1.0	0.95	0.98	0.93
Dissolved Organic Carbon	mg/L	**5 (AO)**	1.7	1.6	1.1	2.0	1.5	1.3	1.8	1.8	1.2	1.5	0.99	1.1	1.1	0.97	1.3	1.10	1.2	1.10	1.00	1.20
Hardness	mg/L	**80-100 (OG)**	**150**	**160**	**150**	**150**	**140**	**130**	**110**	**140**	**170**	**170**	**180**	**230**	**200**	**200**	**170**	**280**	**220**	**250**	**220**	**250**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	8.11	8.11	8.51	8.22	8.23	8.24	8.23	8.27	8.12	7.93	8	7.94	8.13	8.07	8.00	8.05	8.00	8.00	8.00	7.87
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	2.6	2.9	2.7	2.9	1.3	13.0	5.4	9.5	14.0	7.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	220	220	220	260	240	220	210	260	230	210	250	240	250	250	250	240	250	250	240	250
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	**260**	**300**	230	230	240	230	220	250	290	280	**290**	**390**	**310**	**300**	**270**	**410**	**370**	**390**	**350**	**370**
Nitrite (N)	mg/L	**1**	<0.010	<0.010	<0.010	0.025	<0.010	0.016	0.033	0.065	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.052	0.041	0.029	<0.010	<0.010
Nitrate (N)	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate + Nitrite	mg/L	**10**	<0.10	<0.10	<0.10	0.12	<0.10	0.15	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Calcium (Ca)	mg/L		30	30	29	28	26	25	20	27	32	31	35	45	38	37	32	53	42	47	42	46
Dissolved Magnesium (Mg)	mg/L		19	21	19	19	17	17	14	18	21	22	24	30	25	26	23	36	28	36	29	32
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.11	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Potassium (K)	mg/L		7.7	7.2	7.4	7.7	7.2	6.6	6	9	10	8	8.7	9.8	9.5	9.1	8.4	11.0	9	10	10	10
Dissolved Sodium (Na)	mg/L	**200 (AO)**	**210**	**210**	200	**210**	190	**200**	190	**240**	**230**	**240**	**220**	**250**	**240**	**230**	**210**	**290**	**250**	**280**	**240**	**270**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW5-I										OW5-II							
		Date	14-May-20	29-Oct-20	06-May-21	21-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	19-Jul-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																		
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		280	320	290	320	310	330	310	330	330	320	120	130	120	120	120	130	120	110
Total Ammonia-N	mg/L		0.39	0.52	0.46	0.59	0.62	0.65	0.46	0.33	0.11	0.56	15	8.1	8.8	10.0	9.3	9.4	9.4	9.1
Colour	TCU	**5 (AO)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	**12**	**48**	**6**	<2	**3**	**16**	**17**	**32**
Conductivity	uS/cm		740	737	728	635	730	710	710	770	780	720	32000	18100	25000	24000	26000	26000	27000	27000
Total Dissolved Solids	mg/L	**500 (AO)**	410	430	420	440	420	450	410	450	450	430	**17000**	**14000**	**14000**	**16000**	**16000**	**15000**	**17000**	**17000**
Fluoride (F-)	mg/L	**1.5**	0.56	0.63	0.55	0.62	0.59	0.61	0.53	0.52	0.43	0.59	0.40	0.44	0.44	0.45	0.40	0.44	0.44	0.44
Dissolved Organic Carbon	mg/L	**5 (AO)**	1	1.4	1.3	1.5	1.4	1.5	1.4	1.2	1.4	1.5	0.99	23	3.00	0.66	1.30	4.80	0.42	0.62
Hardness	mg/L	**80-100 (OG)**	**260**	**230**	**240**	**250**	**260**	**270**	**230**	**300**	**320**	**280**	**5900**	**5200**	**5900**	**6500**	**5200**	**6100**	**6300**	**6100**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<0.010	<0.010	<0.010	<0.010	0.031	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	7.93	7.87	8.04	8.12	8.14	7.89	7.95	7.78	7.91	8.08	7.12	7.02	7.35	7.46	7.33	7.23	7.32	7.38
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	45	41	47	48	45	52	47	50	57	47	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	280	320	300	320	310	330	310	330	330	320	130	130	120	120	120	130	120	110
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	39	34	31	26	23	20	20	17	26	20	**10000**	**8600**	**7700**	**9700**	**11000**	**9300**	**11000**	**11000**
Nitrite (N)	mg/L	**1**	0.046	0.057	0.011	0.025	0.128	0.024	0.089	<0.010	<0.010	0.132	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	**10**	0.46	0.29	0.46	0.51	0.22	0.26	0.26	0.40	0.29	0.55	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate + Nitrite	mg/L	**10**	0.5	0.35	0.47	0.53	0.35	0.29	0.35	0.40	0.29	0.68	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Calcium (Ca)	mg/L		50	44	45	48	49	52	44	60	65	52	1200	1100	1200	1300	1100	1300	1200	1300
Dissolved Magnesium (Mg)	mg/L		32	29	31	32	34	34	30	36	39	36	720	630	730	760	590	710	780	720
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.5	0.87	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dissolved Potassium (K)	mg/L		6.5	7.7	6.6	8	7	7.9	6	8	6	8	67	74	78	75	57	73	73	76
Dissolved Sodium (Na)	mg/L	**200 (AO)**	59	65	62	63	58	61	56	56	45	60	**4100**	**3300**	**3800**	**4100**	**3500**	**3800**	**3900**	**3900**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW5-III										OW6-II									
		Date	14-May-20	29-Oct-20	06-May-21	21-Oct-21	13-Jun-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	14-May-20	29-Oct-20	29-Jun-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																				
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		88	120	110	120	110	110	120	110	110	100	140	160	150	160	150	170	140	160	160	160
Total Ammonia-N	mg/L		8.2	10	9.0	9.3	9.5	9.9	9.7	9.7	9.5	8.4	<0.050	1.8	0.88	1.4	1.20	2.0	1.50	1.8	0.5	1.7
Colour	TCU	**5 (AO)**	**32**	**16**	<2	3	<2	<2	<2	**59**	**24**	**13**	<2	<2	<2	3	<2	4	**9**	4	<2	<2
Conductivity	uS/cm		21000	31600	25700	18000	28000	26000	27000	29000	29000	25000	6400	6670	6500	4710	6300	6000	5300	6500	6400	6500
Total Dissolved Solids	mg/L	**500 (AO)**	**13000**	**18000**	**15000**	**15000**	**16000**	**16000**	**17000**	**17000**	**20000**	**15000**	**4000**	**4100**	**3900**	**3800**	**3800**	**4100**	**3000**	**3900**	**4000**	**4000**
Fluoride (F-)	mg/L	**1.5**	0.35	0.41	0.42	0.43	0.47	0.43	0.39	0.44	0.44	0.40	0.69	0.76	0.97	0.85	0.89	0.94	0.72	0.93	0.92	0.99
Dissolved Organic Carbon	mg/L	**5 (AO)**	1.3	1.2	0.90	1.2	0.61	0.58	0.61	0.52	0.75	0.99	0.56	0.83	1.8	0.44	0.63	0.45	1.90	0.49	0.82	0.48
Hardness	mg/L	**80-100 (OG)**	**5900**	**7500**	**6600**	**6600**	**6300**	**7000**	**5400**	**6400**	**7400**	**5800**	**1700**	**1700**	**1600**	**1700**	**1600**	**1800**	**1300**	**1700**	**1600**	**1700**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.019	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	7.22	7.21	7.50	7.22	7.32	7.46	7.46	7.33	7.25	7.21	7.66	7.69	7.48	7.69	7.65	7.84	7.62	7.64	7.71	7.66
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	<1.0	79	8.7	41	1.3	1.5	2.5	13	28	2	**960**	**1000**	**980**	**870**	**890**	**980**	**660**	**950**	**910**	**1000**
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	88	120	110	120	110	110	120	110	110	100	140	170	150	160	150	170	140	160	160	160
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	**7300**	**11000**	**9200**	**8800**	**9500**	**9400**	**12000**	**11000**	**12000**	**9700**	**1600**	**1600**	**1500**	**1400**	**1500**	**1600**	**1200**	**1500**	**1600**	**1500**
Nitrite (N)	mg/L	**1**	<0.010	0.021	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	<0.010	<0.010	<0.010	0.024	0.425	0.034	0.041	0.050	0.103	<0.010	0.167	<0.010
Nitrate (N)	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	1.34	<0.10	0.44	<0.10	<0.10	<0.10	1.01	<0.10	1.06	<0.10
Nitrate + Nitrite	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	1.34	<0.10	0.86	<0.10	0.12	<0.10	1.11	<0.10	1.23	<0.10
Dissolved Calcium (Ca)	mg/L		1200	1600	1300	1400	1300	1400	1200	1400	1500	1200	340	360	310	340	320	360	250	350	320	340
Dissolved Magnesium (Mg)	mg/L		700	880	790	770	770	820	610	750	890	680	200	210	190	200	190	210	170	190	200	200
Dissolved Phosphorus (P)	mg/L		<1	0.57	<0.5	<0.5	<0.5	0.64	<0.5	<0.5	<0.5	<0.5	<0.1	0.11	<0.1	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1
Dissolved Potassium (K)	mg/L		59	71	74	73	72	76	58	77	78	63	18	20	79	19	19	19	17	20	19	18
Dissolved Sodium (Na)	mg/L	**200 (AO)**	**3800**	**4600**	**4000**	**4100**	**3900**	**4000**	**3500**	**3800**	**4800**	**3500**	**780**	**840**	**740**	**800**	**790**	**860**	**640**	**770**	**880**	**800**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW7-I										OW7-II									
		Date	14-May-20	29-Oct-20	06-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	14-May-20	29-Oct-20	06-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																				
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		300	290	300	250	260	200	290	120	290	49	300	290	290	260	250	270	270	190	280	170
Total Ammonia-N	mg/L		2.4	2.4	2.3	3.0	2.8	3.0	2.6	4.1	2.4	4.5	2.1	2.3	2.0	2.6	2.6	2.6	2.5	3.2	2.5	4.1
Colour	TCU	**5 (AO)**	**33**	**27**	2	**61**	**150**	**240**	3	**560**	**18**	<2	<2	<2	<2	2	5	<2	2	**5**	<2	16
Conductivity	uS/cm		6400	6810	6190	7180	8300	2800	7700	8800	7400	12000	6500	7300	6350	6630	8500	5600	7800	12000	7800	22000
Total Dissolved Solids	mg/L	**500 (AO)**	**3400**	**4000**	**3400**	**5000**	**4400**	**1700**	**4100**	**5200**	**4200**	**7100**	**3400**	**3900**	**3300**	**4600**	**4600**	**3200**	**3700**	**7000**	**4400**	**14000**
Fluoride (F-)	mg/L	**1.5**	**2.1**	**1.9**	**2.1**	**1.5**	**1.7**	0.54	**1.7**	1.10	**1.80**	1.20	**2.2**	**1.9**	**2.0**	**1.6**	**1.7**	1.0	**1.7**	1.3	**1.8**	0.9
Dissolved Organic Carbon	mg/L	**5 (AO)**	0.56	0.86	0.66	0.88	0.57	2.10	0.70	0.99	0.80	1.10	0.56	0.81	0.69	0.68	0.75	2.00	2.00	1.10	0.77	1.00
Hardness	mg/L	**80-100 (OG)**	**860**	**1000**	**860**	**1600**	**1300**	**920**	**990**	**1900**	**1100**	**3100**	**910**	**1000**	**800**	**1600**	**1400**	**1300**	**1000**	**3100**	**1100**	**6600**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<0.10
pH	units	**6.5-8.5 (OG)**	7.78	7.74	7.87	7.62	7.71	7.44	7.86	7.32	7.78	6.64	7.78	7.76	7.83	7.69	7.62	7.80	7.78	7.50	7.75	7.30
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	20	28	15	22	24	290	7.8	89	30	64	21	26	31	25	33	58	22	36	15	28
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	300	290	300	250	260	200	290	120	290	49	300	290	290	260	250	270	280	190	280	170
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	**1900**	**2300**	**1800**	**2800**	**2400**	**680**	**2500**	**2800**	**2300**	**3900**	**2000**	**2200**	**1900**	**2400**	**2600**	**1800**	**2200**	**3700**	**2500**	**8000**
Nitrite (N)	mg/L	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.017	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.31	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate + Nitrite	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.33	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Calcium (Ca)	mg/L		180	200	180	340	260	220	190	380	210	620	180	210	170	340	270	260	200	650	230	1400
Dissolved Magnesium (Mg)	mg/L		100	120	100	190	160	88	120	240	130	370	110	120	94	180	170	150	130	370	140	760
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1	<0.5
Dissolved Potassium (K)	mg/L		15	18	18	24	22	18	18	29	19	35	17	18	16	23	22	19	18	32	19	48
Dissolved Sodium (Na)	mg/L	**200 (AO)**	**980**	**1100**	**1000**	**1500**	**1300**	**250**	**1000**	150	**1300**	**1900**	**950**	**1100**	**980**	**1500**	**1400**	**780**	**1100**	**2100**	**1300**	**3700**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW8-I										OW8-II						
		Date	14-May-20	29-Oct-20	06-May-21	29-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	04-Oct-19	06-May-21	21-Oct-21	13-May-22	23-May-23	16-May-24	16-May-24
Parameter	Units	ODWS																	
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		310	300	290	300	280	300	300	280	280	270	310	290	290	270	280	240	240
Total Ammonia-N	mg/L		0.55	0.37	0.31	0.49	0.38	1.10	0.36	0.53	0.32	0.76	0.87	0.28	0.26	<0.050	<0.050	0.32	0.32
Colour	TCU	**5 (AO)**	<2	<2	<2	2	<2	<2	<2	<2	4	<2	<2	<2	2	2	<2	3	3
Conductivity	uS/cm		1000	847	733	818	890	2,400	780	1,300	760	2,500	2100	722	648	700	720	650	650
Total Dissolved Solids	mg/L	**500 (AO)**	**560**	470	440	**520**	**510**	**1400**	450	**700**	450	**1200**	**1100**	430	420	420	420	390	390
Fluoride (F-)	mg/L	**1.5**	1.3	0.95	0.57	0.91	0.65	0.84	0.50	0.66	0.46	0.06	0.94	0.49	0.49	0.51	0.45	0.44	0.44
Dissolved Organic Carbon	mg/L	**5 (AO)**	1.5	1.6	1.5	1.5	1.3	1.3	1.5	1.3	1.6	1.5	1.4	1.9	1.7	2.6	1.8	1.9	1.9
Hardness	mg/L	**80-100 (OG)**	**300**	**290**	**330**	**290**	**350**	**640**	**320**	**430**	**340**	**670**	**430**	**330**	**330**	**330**	**310**	**310**	**310**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	7.88	7.8	7.69	7.75	7.79	7.77	7.80	7.70	7.79	7.54	7.99	7.71	8.03	8.01	8.04	8.00	8.00
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	38	45	57	52	57	35	61	47	70	39	22	55	53	57	64	63	63
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	310	300	290	300	280	300	300	290	280	270	310	290	290	280	280	240	240
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	110	65	31	93	85	610	39	210	38	610	**460**	28	27	29	28	27	27
Nitrite (N)	mg/L	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate (N)	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.30	0.17	0.40	0.40
Nitrate + Nitrite	mg/L	**10**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.30	0.17	0.40	0.40
Dissolved Calcium (Ca)	mg/L		85	86	100	83	110	170	97	120	100	100	110	100	100	100	97	92	92
Dissolved Magnesium (Mg)	mg/L		22	19	19	20	21	52	19	30	21	21	38	18	18	18	17	19	19
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Potassium (K)	mg/L		4.6	4.1	3.9	4.6	3.8	8.9	4	6	4	4	7.2	3.7	3.7	3.7	4	4	4
Dissolved Sodium (Na)	mg/L	**200 (AO)**	96	68	36	80	53	**280**	39	100	37	37	**250**	34	31	34	30	34	34

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	OW9-I			OW9-II			
		Date	23-May-17	26-Oct-17	29-May-18	08-May-19	14-May-20	21-Oct-21	28-Oct-22
Parameter	Units	ODWS							
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		170	130	200	170	160	140	130
Total Ammonia-N	mg/L		18	21	18	0.11	0.27	0.15	2.10
Colour	TCU	**5 (AO)**	**110**	**49**	**14**	3	3	**6**	**6**
Conductivity	uS/cm		81000	88000	73000	39000	50000	62200	60000
Total Dissolved Solids	mg/L	**500 (AO)**	**58000**	**57000**	**46000**	**23000**	**32000**	**39000**	**47000**
Fluoride (F-)	mg/L	**1.5**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dissolved Organic Carbon	mg/L	**5 (AO)**	**12**	**9.1**	**8.7**	**7.8**	**8.1**	**8.5**	**9.0**
Hardness	mg/L	**80-100 (OG)**	**27000**	**25000**	**22000**	**12000**	**17000**	**21000**	**26000**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	6.73	6.95	6.93	7.09	7.13	7.15	7.15
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	180	160	120	**880**	**1000**	**1200**	**1300**
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	170	130	200	170	160	140	130
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	**37000**	**39000**	**30000**	**13000**	**20000**	**24000**	**28000**
Nitrite (N)	mg/L	**1**	<0.10	<0.010	<0.050	0.013	0.033	<0.010	<0.10
Nitrate (N)	mg/L	**10**	<1.0	<0.10	<0.50	0.51	0.99	2.19	1.60
Nitrate + Nitrite	mg/L	**10**	<1.0	<0.10	<0.50	0.52	1.02	2.19	1.60
Dissolved Calcium (Ca)	mg/L		5700	5000	4600	2900	3800	4800	5800
Dissolved Magnesium (Mg)	mg/L		3200	3100	2500	1200	1700	2100	2800
Dissolved Phosphorus (P)	mg/L		<2	<1	<1	<0.1	<1	<1	<1
Dissolved Potassium (K)	mg/L		140	140	120	69	92	110	130
Dissolved Sodium (Na)	mg/L	**200 (AO)**	**11000**	**10000**	**9000**	**4200**	**5800**	**6600**	**9000**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

		Sample	TW1-1										AMx-R									
		Date	14-May-20	29-Oct-20	06-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24	14-May-20	30-Oct-20	06-May-21	21-Oct-21	13-May-22	28-Oct-22	23-May-23	16-Oct-23	16-May-24	22-Oct-24
Parameter	Units	ODWS																				
Bicarb. Alkalinity (calc. as $CaCO_3$)	mg/L		280	260	280	250	220	200	290	300	300	300	1.6	22	14	5.1	4	3.6	2	2.2	2.0	4.0
Total Ammonia-N	mg/L		0.95	0.73	0.79	0.63	0.64	1.40	0.90	0.85	0.54	0.56	5.7	5.4	6.0	5.3	5.6	6.0	5.9	5.9	5.2	5.2
Colour	TCU	**5 (AO)**	<2	<2	<2	3	<2	<2	3	<2	3	2	<2	**260**	<2	**22**	**22**	**4**	**12**	**34**	**36**	<2
Conductivity	uS/cm		2800	2460	2530	2260	2800	3400	2400	2000	1500	1400	18000	18500	22500	12600	17000	15000	17000	17000	15000	16000
Total Dissolved Solids	mg/L	**500 (AO)**	**1400**	**1300**	**1300**	**1400**	**1500**	**1900**	**1200**	**1100**	**790**	**770**	**10000**	**9800**	**12000**	**9500**	**9300**	**9300**	**8600**	**9100**	**8700**	**8700**
Fluoride (F-)	mg/L	**1.5**	0.5	0.47	0.48	0.56	1.10	**1.90**	0.50	0.53	0.52	0.49	0.56	0.6	0.61	0.62	0.69	0.65	0.60	0.65	0.60	0.67
Dissolved Organic Carbon	mg/L	**5 (AO)**	1.6	1.7	1.5	1.6	1.3	0.78	1.7	1.70	1.80	1.80	2	2.2	1.9	2.1	1.9	1.7	2.1	1.4	1.4	1.7
Hardness	mg/L	**80-100 (OG)**	**610**	**540**	**580**	**630**	**610**	**720**	**580**	**510**	**410**	**410**	**3800**	**3600**	**4900**	**3800**	**3400**	**3700**	**2800**	**3200**	**2900**	**3000**
Phosphate	mg/L		<0.010	<0.010	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	**6.5-8.5 (OG)**	7.84	7.91	8.00	7.89	7.87	7.83	8.08	7.86	7.89	7.75	**6.06**	**6.39**	**6.43**	**5.82**	**5.77**	**5.70**	**5.52**	**5.70**	**5.52**	**5.53**
Dissolved Sulphate (SO_4)	mg/L	**500 (AO)**	30	29	38	39	80	160	28	32	31	37	<1.0	4.8	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity (Total as $CaCO_3$)	mg/L	**30-500 (OG)**	290	260	280	260	220	200	290	300	300	300	1.6	22	14	5.1	4	3.6	1.8	2.2	2.0	4.0
Dissolved Chloride (Cl)	mg/L	**250 (AO)**	**660**	**610**	**600**	**700**	**700**	**910**	**560**	**450**	**270**	**250**	**6300**	**6400**	**7400**	**6000**	**5900**	**5600**	**5800**	**5800**	**5600**	**5600**
Nitrite (N)	mg/L	**1**	<0.010	0.023	<0.010	0.039	0.039	0.021	<0.010	0.039	<0.010	0.017	<0.010	<0.010	<0.010	0.024	0.031	0.032	0.036	0.048	0.052	0.035
Nitrate (N)	mg/L	**10**	<0.10	0.25	<0.10	0.46	1.31	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.1	<0.10	<0.10	0.37	<0.10	0.55
Nitrate + Nitrite	mg/L	**10**	<0.10	0.27	<0.10	0.50	1.34	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	0.11	0.42	<0.10	0.59
Dissolved Calcium (Ca)	mg/L		130	100	130	130	130	140	130	110	92	94	680	690	920	710	660	700	530	630	550	580
Dissolved Magnesium (Mg)	mg/L		68	68	64	73	70	140	64	56	44	43	510	460	620	480	440	460	360	410	380	380
Dissolved Phosphorus (P)	mg/L		<0.1	<0.1	<0.1	<0.1	<0.1	87	<0.1	<0.1	<0.1	<0.1	<0.5	0.54	<0.5	<0.1	<0.1	0.6	<0.5	<0.5	<0.1	<0.5
Dissolved Potassium (K)	mg/L		10	11	11	13	11	13	95	97	84	8	48	42	56	45	43	46	36	43	42	40
Dissolved Sodium (Na)	mg/L	**200 (AO)**	**290**	**290**	**280**	**320**	**340**	**480**	**260**	**230**	160	150	**2400**	**2200**	**2900**	**2200**	**2200**	**2300**	**1900**	**2100**	**2100**	**2100**

Notes:
AO: aesthetic objective
OG: operational guideline
Exceedances of the OWDS (operational guidelines excluded) are shown in bold.

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
01-Jan-24	NO PUMP		0	0	-	-	-
02-Jan-24	NO PUMP		0	0	-	-	-
03-Jan-24	NO PUMP		0	0	-	-	-
04-Jan-24	NO PUMP		0	0	-	-	-
05-Jan-24	NO PUMP		0	0	-	-	-
06-Jan-24	NO PUMP		0	0	-	-	-
07-Jan-24	NO PUMP		0	0	-	-	-
08-Jan-24	NO PUMP		0	0	-	-	-
09-Jan-24	7:30 AM	4:30 PM	32400	540	765,180	24	1,417
10-Jan-24	7:30 AM	4:30 PM	32400	540	765,180	24	1,417
11-Jan-24	7:30 AM	4:30 PM	32400	540	765,180	24	1,417
12-Jan-24	NO PUMP		0	0	-	-	-
13-Jan-24	NO PUMP		0	0	-	-	-
14-Jan-24	NO PUMP		0	0	-	-	-
15-Jan-24	NO PUMP		0	0	-	-	-
16-Jan-24	NO PUMP		0	0	-	-	-
17-Jan-24	NO PUMP		0	0	-	-	-
18-Jan-24	NO PUMP		0	0	-	-	-
19-Jan-24	NO PUMP		0	0	-	-	-
20-Jan-24	NO PUMP		0	0	-	-	-
21-Jan-24	NO PUMP		0	0	-	-	-
22-Jan-24	NO PUMP		0	0	-	-	-
23-Jan-24	NO PUMP		0	0	-	-	-
24-Jan-24	NO PUMP		0	0	-	-	-
25-Jan-24	NO PUMP		0	0	-	-	-
26-Jan-24	NO PUMP		0	0	-	-	-
27-Jan-24	NO PUMP		0	0	-	-	-
28-Jan-24	NO PUMP		0	0	-	-	-
29-Jan-24	7:30 AM	4:30 PM	32400	540	765,180	24	1,417
30-Jan-24	NO PUMP		0	0	-	-	-
31-Jan-24	NO PUMP		0	0	-	-	-
1-Feb-24	NO PUMP		0	0	-	-	-
2-Feb-24	NO PUMP		0	0	-	-	-
3-Feb-24	NO PUMP		0	0	-	-	-
4-Feb-24	NO PUMP		0	0	-	-	-
5-Feb-24	NO PUMP		0	0	-	-	-
6-Feb-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
7-Feb-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
8-Feb-24	NO PUMP		0	0	-	-	-
9-Feb-24	NO PUMP		0	0	-	-	-
10-Feb-24	NO PUMP		0	0	-	-	-
11-Feb-24	NO PUMP		0	0	-	-	-
12-Feb-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
13-Feb-24	NO PUMP		0	0	-	-	-
14-Feb-24	NO PUMP		0	0	-	-	-
15-Feb-24	NO PUMP		0	0	-	-	-
16-Feb-24	NO PUMP		0	0	-	-	-
17-Feb-24	NO PUMP		0	0	-	-	-
18-Feb-24	NO PUMP		0	0	-	-	-
19-Feb-24	NO PUMP		0	0	-	-	-
20-Feb-24	NO PUMP		0	0	-	-	-
21-Feb-24	NO PUMP		0	0	-	-	-
22-Feb-24	NO PUMP		0	0	-	-	-
23-Feb-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
24-Feb-24	NO PUMP		0	0	-	-	-
25-Feb-24	NO PUMP		0	0	-	-	-
26-Feb-24	NO PUMP		0	0	-	-	-
27-Feb-24	NO PUMP		0	0	-	-	-
28-Feb-24	NO PUMP		0	0	-	-	-
29-Feb-24	NO PUMP		0	0	-	-	-
1-Mar-24	NO PUMP		0	0	-	-	-
2-Mar-24	NO PUMP		0	0	-	-	-
3-Mar-24	NO PUMP		0	0	-	-	-
4-Mar-24	NO PUMP		0	0	-	-	-
5-Mar-24	NO PUMP		0	0	-	-	-
6-Mar-24	NO PUMP		0	0	-	-	-
7-Mar-24	NO PUMP		0	0	-	-	-
8-Mar-24	NO PUMP		0	0	-	-	-
9-Mar-24	NO PUMP		0	0	-	-	-
10-Mar-24	NO PUMP		0	0	-	-	-
11-Mar-24	NO PUMP		0	0	-	-	-
12-Mar-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
13-Mar-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
14-Mar-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
15-Mar-24	NO PUMP		0	0	-	-	-
16-Mar-24	NO PUMP		0	0	-	-	-
17-Mar-24	NO PUMP		0	0	-	-	-
18-Mar-24	NO PUMP		0	0	-	-	-
19-Mar-24	NO PUMP		0	0	-	-	-
20-Mar-24	NO PUMP		0	0	-	-	-
21-Mar-24	NO PUMP		0	0	-	-	-
22-Mar-24	NO PUMP		0	0	-	-	-
23-Mar-24	NO PUMP		0	0	-	-	-
24-Mar-24	NO PUMP		0	0	-	-	-
25-Mar-24	NO PUMP		0	0	-	-	-
26-Mar-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
27-Mar-24	NO PUMP		0	0	-	-	-
28-Mar-24	NO PUMP		0	0	-	-	-
29-Mar-24	NO PUMP		0	0	-	-	-
30-Mar-24	NO PUMP		0	0	-	-	-
31-Mar-24	NO PUMP		0	0	-	-	-
1-Apr-24	NO PUMP		0	0	-	-	-
2-Apr-24	NO PUMP		0	0	-	-	-
3-Apr-24	NO PUMP		0	0	-	-	-
4-Apr-24	NO PUMP		0	0	-	-	-
5-Apr-24	NO PUMP		0	0	-	-	-
6-Apr-24	NO PUMP		0	0	-	-	-
7-Apr-24	NO PUMP		0	0	-	-	-
8-Apr-24	NO PUMP		0	0	-	-	-
9-Apr-24	NO PUMP		0	0	-	-	-
10-Apr-24	NO PUMP		0	0	-	-	-
11-Apr-24	NO PUMP		0	0	-	-	-
12-Apr-24	NO PUMP		0	0	-	-	-
13-Apr-24	NO PUMP		0	0	-	-	-
14-Apr-24	NO PUMP		0	0	-	-	-
15-Apr-24	NO PUMP		0	0	-	-	-
16-Apr-24	NO PUMP		0	0	-	-	-
17-Apr-24	NO PUMP		0	0	-	-	-
18-Apr-24	NO PUMP		0	0	-	-	-
19-Apr-24	NO PUMP		0	0	-	-	-
20-Apr-24	NO PUMP		0	0	-	-	-
21-Apr-24	NO PUMP		0	0	-	-	-
22-Apr-24	NO PUMP		0	0	-	-	-
23-Apr-24	NO PUMP		0	0	-	-	-
24-Apr-24	NO PUMP		0	0	-	-	-
25-Apr-24	NO PUMP		0	0	-	-	-
26-Apr-24	NO PUMP		0	0	-	-	-
27-Apr-24	NO PUMP		0	0	-	-	-
28-Apr-24	NO PUMP		0	0	-	-	-
29-Apr-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
30-Apr-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
1-May-24	NO PUMP		0	0	-	-	-
2-May-24	NO PUMP		0	0	-	-	-
3-May-24	NO PUMP		0	0	-	-	-
4-May-24	NO PUMP		0	0	-	-	-
5-May-24	NO PUMP		0	0	-	-	-
6-May-24	NO PUMP		0	0	-	-	-
7-May-24	NO PUMP		0	0	-	-	-
8-May-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
9-May-24	NO PUMP		0	0	-	-	-
10-May-24	NO PUMP		0	0	-	-	-
11-May-24	NO PUMP		0	0	-	-	-
12-May-24	NO PUMP		0	0	-	-	-
13-May-24	NO PUMP		0	0	-	-	-
14-May-24	NO PUMP		0	0	-	-	-
15-May-24	NO PUMP		0	0	-	-	-
16-May-24	NO PUMP		0	0	-	-	-
17-May-24	NO PUMP		0	0	-	-	-
18-May-24	NO PUMP		0	0	-	-	-
19-May-24	NO PUMP		0	0	-	-	-
20-May-24	NO PUMP		0	0	-	-	-
21-May-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
22-May-24	NO PUMP		0	0	-	-	-
23-May-24	NO PUMP		0	0	-	-	-
24-May-24	NO PUMP		0	0	-	-	-
25-May-24	NO PUMP		0	0	-	-	-
26-May-24	NO PUMP		0	0	-	-	-
27-May-24	NO PUMP		0	0	-	-	-
28-May-24	NO PUMP		0	0	-	-	-
29-May-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
30-May-24	NO PUMP		0	0	-	-	-
31-May-24	NO PUMP		0	0	-	-	-
1-Jun-24	NO PUMP		0	0	-	-	-
2-Jun-24	NO PUMP		0	0	-	-	-
3-Jun-24	NO PUMP		0	0	-	-	-
4-Jun-24	NO PUMP		0	0	-	-	-
5-Jun-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
6-Jun-24	NO PUMP		0	0	-	-	-
7-Jun-24	NO PUMP		0	0	-	-	-
8-Jun-24	NO PUMP		0	0	-	-	-
9-Jun-24	NO PUMP		0	0	-	-	-
10-Jun-24	NO PUMP		0	0	-	-	-
11-Jun-24	NO PUMP		0	0	-	-	-
12-Jun-24	NO PUMP		0	0	-	-	-
13-Jun-24	NO PUMP		0	0	-	-	-
14-Jun-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
15-Jun-24	NO PUMP		0	0	-	-	-
16-Jun-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
17-Jun-24	NO PUMP		0	0	-	-	-
18-Jun-24	NO PUMP		0	0	-	-	-
19-Jun-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
20-Jun-24	NO PUMP		0	0	-	-	-
21-Jun-24	NO PUMP		0	0	-	-	-
22-Jun-24	NO PUMP		0	0	-	-	-
23-Jun-24	NO PUMP		0	0	-	-	-
24-Jun-24	NO PUMP		0	0	-	-	-
25-Jun-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
26-Jun-24	NO PUMP		0	0	-	-	-
27-Jun-24	NO PUMP		0	0	-	-	-
28-Jun-24	NO PUMP		0	0	-	-	-
29-Jun-24	NO PUMP		0	0	-	-	-
30-Jun-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
1-Jul-24	NO PUMP		0	0	-	-	-
2-Jul-24	NO PUMP		0	0	-	-	-
3-Jul-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
4-Jul-24	NO PUMP		0	0	-	-	-
5-Jul-24	NO PUMP		0	0	-	-	-
6-Jul-24	NO PUMP		0	0	-	-	-
7-Jul-24	NO PUMP		0	0	-	-	-
8-Jul-24	NO PUMP		0	0	-	-	-
9-Jul-24	NO PUMP		0	0	-	-	-
10-Jul-24	NO PUMP		0	0	-	-	-
11-Jul-24	NO PUMP		0	0	-	-	-
12-Jul-24	NO PUMP		0	0	-	-	-
13-Jul-24	NO PUMP		0	0	-	-	-
14-Jul-24	NO PUMP		0	0	-	-	-
15-Jul-24	NO PUMP		0	0	-	-	-
16-Jul-24	NO PUMP		0	0	-	-	-
17-Jul-24	NO PUMP		0	0	-	-	-
18-Jul-24	NO PUMP		0	0	-	-	-
19-Jul-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
20-Jul-24	NO PUMP		0	0	-	-	-
21-Jul-24	NO PUMP		0	0	-	-	-
22-Jul-24	NO PUMP		0	0	-	-	-
23-Jul-24	NO PUMP		0	0	-	-	-
24-Jul-24	NO PUMP		0	0	-	-	-
25-Jul-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
26-Jul-24	NO PUMP		0	0	-	-	-
27-Jul-24	NO PUMP		0	0	-	-	-
28-Jul-24	NO PUMP		0	0	-	-	-
29-Jul-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
30-Jul-24	NO PUMP		0	0	-	-	-
31-Jul-24	NO PUMP		0	0	-	-	-
1-Aug-24	NO PUMP		0	0	-	-	-
2-Aug-24	7:00 AM	2:00 PM	25200	420	595,140	24	1,417
3-Aug-24	NO PUMP		0	0	-	-	-
4-Aug-24	NO PUMP		0	0	-	-	-
5-Aug-24	NO PUMP		0	0	-	-	-
6-Aug-24	NO PUMP		0	0	-	-	-
7-Aug-24	NO PUMP		0	0	-	-	-
8-Aug-24	NO PUMP		0	0	-	-	-
9-Aug-24	NO PUMP		0	0	-	-	-
10-Aug-24	NO PUMP		0	0	-	-	-
11-Aug-24	NO PUMP		0	0	-	-	-
12-Aug-24	NO PUMP		0	0	-	-	-
13-Aug-24	NO PUMP		0	0	-	-	-
14-Aug-24	NO PUMP		0	0	-	-	-
15-Aug-24	NO PUMP		0	0	-	-	-
16-Aug-24	NO PUMP		0	0	-	-	-
17-Aug-24	NO PUMP		0	0	-	-	-
18-Aug-24	NO PUMP		0	0	-	-	-
19-Aug-24	NO PUMP		0	0	-	-	-
20-Aug-24	NO PUMP		0	0	-	-	-
21-Aug-24	7:00 AM	5:00 PM	36000	600	850,200	24	1,417
22-Aug-24	NO PUMP		0	0	-	-	-
23-Aug-24	NO PUMP		0	0	-	-	-
24-Aug-24	NO PUMP		0	0	-	-	-
25-Aug-24	NO PUMP		0	0	-	-	-
26-Aug-24	NO PUMP		0	0	-	-	-
27-Aug-24	NO PUMP		0	0	-	-	-
28-Aug-24	NO PUMP		0	0	-	-	-
29-Aug-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
30-Aug-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
31-Aug-24	NO PUMP		0	0	-	-	-
1-Sep-24	NO PUMP		0	0	-	-	-
2-Sep-24	NO PUMP		0	0	-	-	-
3-Sep-24	NO PUMP		0	0	-	-	-
4-Sep-24	NO PUMP		0	0	-	-	-
5-Sep-24	NO PUMP		0	0	-	-	-
6-Sep-24	NO PUMP		0	0	-	-	-
7-Sep-24	NO PUMP		0	0	-	-	-
8-Sep-24	NO PUMP		0	0	-	-	-
9-Sep-24	NO PUMP		0	0	-	-	-
10-Sep-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
11-Sep-24	7:00 AM	2:00 PM	25200	420	595,140	24	1,417
12-Sep-24	NO PUMP		0	0	-	-	-
13-Sep-24	NO PUMP		0	0	-	-	-
14-Sep-24	NO PUMP		0	0	-	-	-
15-Sep-24	NO PUMP		0	0	-	-	-
16-Sep-24	NO PUMP		0	0	-	-	-
17-Sep-24	NO PUMP		0	0	-	-	-
18-Sep-24	NO PUMP		0	0	-	-	-
19-Sep-24	NO PUMP		0	0	-	-	-
20-Sep-24	NO PUMP		0	0	-	-	-
21-Sep-24	NO PUMP		0	0	-	-	-
22-Sep-24	NO PUMP		0	0	-	-	-
23-Sep-24	NO PUMP		0	0	-	-	-
24-Sep-24	NO PUMP		0	0	-	-	-
25-Sep-24	7:00 AM	5:00 PM	36000	600	850,200	24	1,417
26-Sep-24	NO PUMP		0	0	-	-	-
27-Sep-24	NO PUMP		0	0	-	-	-
28-Sep-24	NO PUMP		0	0	-	-	-
29-Sep-24	NO PUMP		0	0	-	-	-
30-Sep-24	NO PUMP		0	0	-	-	-
1-Oct-24	NO PUMP		0	0	-	-	-
2-Oct-24	NO PUMP		0	0	-	-	-
3-Oct-24	NO PUMP		0	0	-	-	-
4-Oct-24	NO PUMP		0	0	-	-	-
5-Oct-24	NO PUMP		0	0	-	-	-
6-Oct-24	NO PUMP		0	0	-	-	-
7-Oct-24	NO PUMP		0	0	-	-	-
8-Oct-24	NO PUMP		0	0	-	-	-
9-Oct-24	NO PUMP		0	0	-	-	-
10-Oct-24	NO PUMP		0	0	-	-	-
11-Oct-24	7:00 AM	3:00 PM	28800	480	680,160	24	1,417
12-Oct-24	NO PUMP		0	0	-	-	-
13-Oct-24	NO PUMP		0	0	-	-	-
14-Oct-24	NO PUMP		0	0	-	-	-
15-Oct-24	NO PUMP		0	0	-	-	-
16-Oct-24	NO PUMP		0	0	-	-	-
17-Oct-24	NO PUMP		0	0	-	-	-
18-Oct-24	NO PUMP		0	0	-	-	-
19-Oct-24	NO PUMP		0	0	-	-	-
20-Oct-24	NO PUMP		0	0	-	-	-
21-Oct-24	NO PUMP		0	0	-	-	-
22-Oct-24	NO PUMP		0	0	-	-	-
23-Oct-24	NO PUMP		0	0	-	-	-

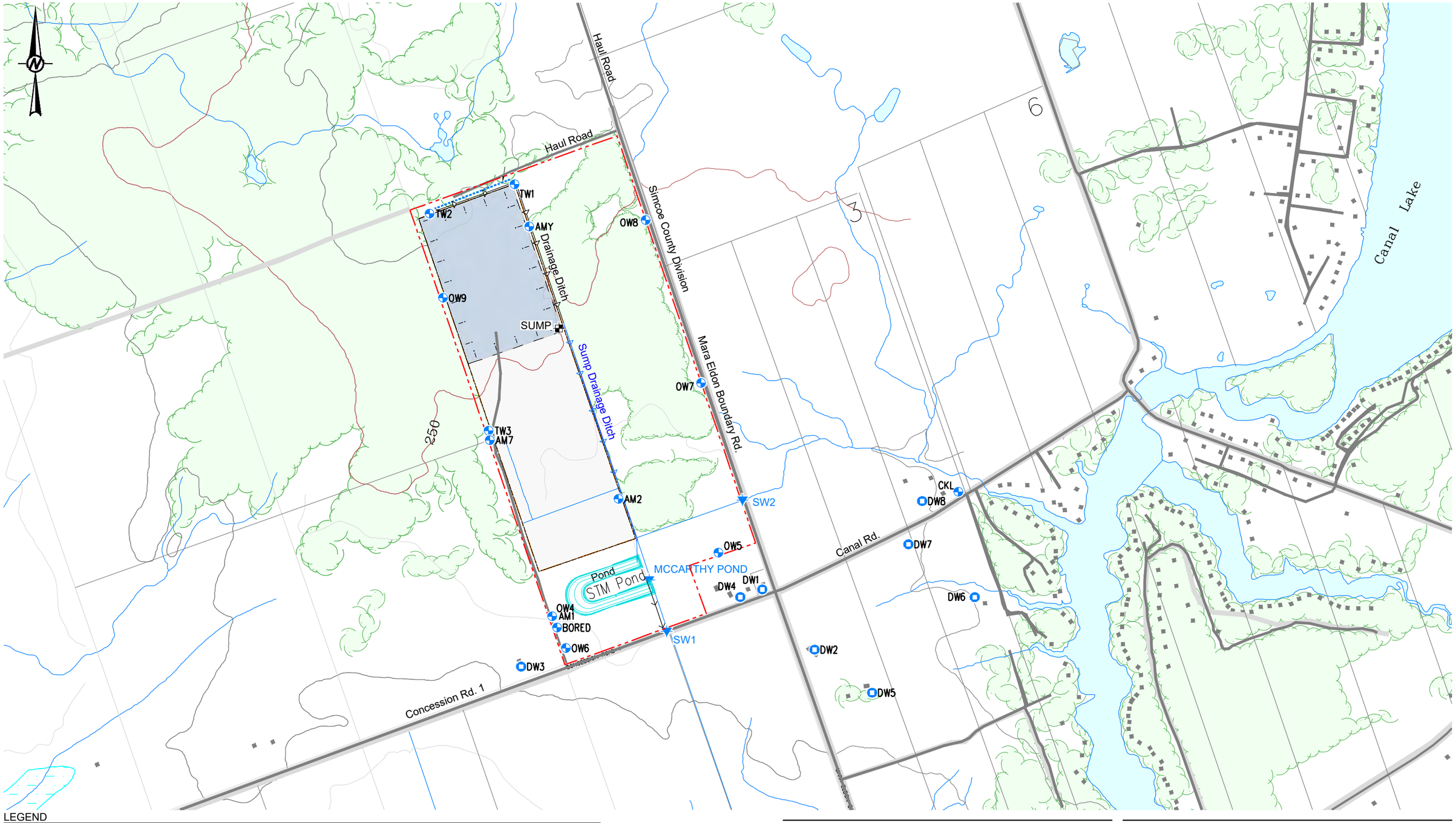
Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
24-Oct-24	NO PUMP		0	0	-	-	-
25-Oct-24	7:00 AM	5:00 PM	36000	600	850,200	24	1,417
26-Oct-24	NO PUMP		0	0	-	-	-
27-Oct-24	NO PUMP		0	0	-	-	-
28-Oct-24	NO PUMP		0	0	-	-	-
29-Oct-24	NO PUMP		0	0	-	-	-
30-Oct-24	NO PUMP		0	0	-	-	-
31-Oct-24	NO PUMP		0	0	-	-	-
1-Nov-24	NO PUMP		0	0	-	-	-
2-Nov-24	7:00 AM	2:00 PM	25200	420	595,140	24	1,417
3-Nov-24	NO PUMP		0	0	-	-	-
4-Nov-24	NO PUMP		0	0	-	-	-
5-Nov-24	NO PUMP		0	0	-	-	-
6-Nov-24	NO PUMP		0	0	-	-	-
7-Nov-24	NO PUMP		0	0	-	-	-
8-Nov-24	NO PUMP		0	0	-	-	-
9-Nov-24	NO PUMP		0	0	-	-	-
10-Nov-24	NO PUMP		0	0	-	-	-
11-Nov-24	NO PUMP		0	0	-	-	-
12-Nov-24	NO PUMP		0	0	-	-	-
13-Nov-24	NO PUMP		0	0	-	-	-
14-Nov-24	NO PUMP		0	0	-	-	-
15-Nov-24	NO PUMP		0	0	-	-	-
16-Nov-24	NO PUMP		0	0	-	-	-
17-Nov-24	NO PUMP		0	0	-	-	-
18-Nov-24	NO PUMP		0	0	-	-	-
19-Nov-24	NO PUMP		0	0	-	-	-
20-Nov-24	NO PUMP		0	0	-	-	-
21-Nov-24	7:00 AM	5:00 PM	36000	600	850,200	24	1,417
22-Nov-24	NO PUMP		0	0	-	-	-
23-Nov-24	NO PUMP		0	0	-	-	-
24-Nov-24	NO PUMP		0	0	-	-	-
25-Nov-24	NO PUMP		0	0	-	-	-
26-Nov-24	NO PUMP		0	0	-	-	-
27-Nov-24	NO PUMP		0	0	-	-	-
28-Nov-24	NO PUMP		0	0	-	-	-
29-Nov-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
30-Nov-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
1-Dec-24	NO PUMP		0	0	-	-	-
2-Dec-24	NO PUMP		0	0	-	-	-
3-Dec-24	NO PUMP		0	0	-	-	-
4-Dec-24	7:00 AM	4:00 PM	32400	540	765,180	24	1,417
5-Dec-24	NO PUMP		0	0	-	-	-

Table 6: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,544,800**	**76**	**4,545**
6-Dec-24	NO PUMP		0	0	-	-	-
7-Dec-24	NO PUMP		0	0	-	-	-
8-Dec-24	NO PUMP		0	0	-	-	-
9-Dec-24	NO PUMP		0	0	-	-	-
10-Dec-24	NO PUMP		0	0	-	-	-
11-Dec-24	NO PUMP		0	0	-	-	-
12-Dec-24	NO PUMP		0	0	-	-	-
13-Dec-24	NO PUMP		0	0	-	-	-
14-Dec-24	NO PUMP		0	0	-	-	-
15-Dec-24	NO PUMP		0	0	-	-	-
16-Dec-24	NO PUMP		0	0	-	-	-
17-Dec-24	NO PUMP		0	0	-	-	-
18-Dec-24	NO PUMP		0	0	-	-	-
19-Dec-24	NO PUMP		0	0	-	-	-
20-Dec-24	NO PUMP		0	0	-	-	-
21-Dec-24	NO PUMP		0	0	-	-	-
22-Dec-24	NO PUMP		0	0	-	-	-
23-Dec-24	NO PUMP		0	0	-	-	-
24-Dec-24	NO PUMP		0	0	-	-	-
25-Dec-24	NO PUMP		0	0	-	-	-
26-Dec-24	NO PUMP		0	0	-	-	-
27-Dec-24	NO PUMP		0	0	-	-	-
28-Dec-24	NO PUMP		0	0	-	-	-
29-Dec-24	NO PUMP		0	0	-	-	-
30-Dec-24	NO PUMP		0	0	-	-	-
31-Dec-24	NO PUMP		0	0	-	-	-

Figures



LEGEND

- Property Boundary
- Approximate Licenced Boundary
- Approximate Extent of Quarry
- Private Well Monitoring Location
- Observation Well Monitoring Location
- Surface Water Sampling Location

REFERENCES AND NOTES

1. Projection UTM NAD83 Zone 17
2. Mapping based on ESRI Geography Network OBM Features and 2012 Road Network
3. All Mapped features are Approximate and Not to Scale

0 250 500
1:10,000 METRES

CLIENT
GIP AGGREGATES INC.

CONSULTANT
wsp

YYYY-MM-DD	2025-01-21
PREPARED	JPR
DESIGN	
REVIEW	CSI
APPROVED	DPD

PROJECT
STAN McCARTHY QUARRY
2024 ANNUAL MONITORING REPORT

TITLE
LOCATION MAP

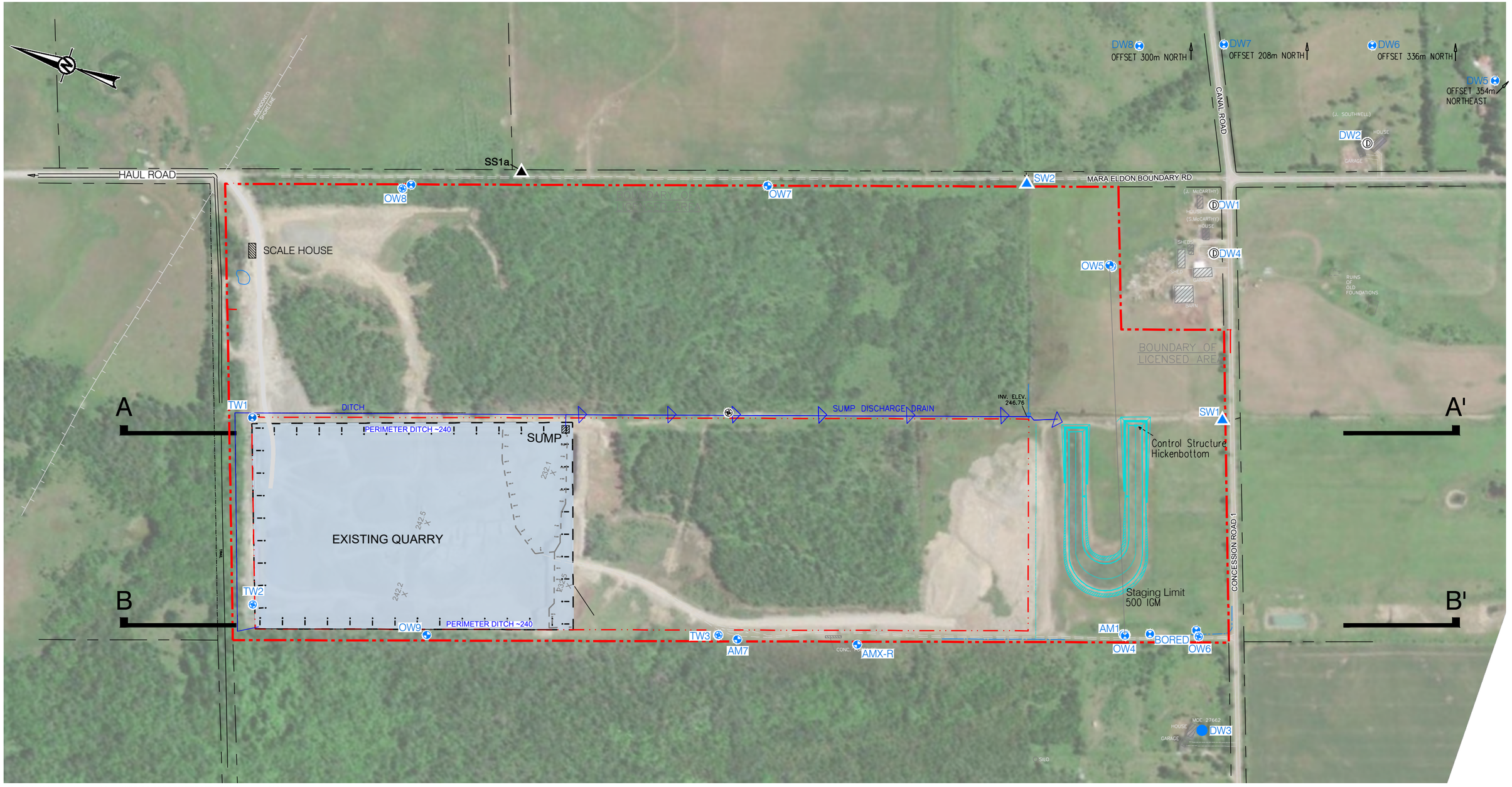
PROJECT No.	CONTROL	Rev.	FIGURE
CA0023633	0003	----	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

0

Path: \\corp.pbwan.net\CA\CAMIS300\CTX_Data\SM\Clients\Coco_Paving\McCarthy_Quarry\99_PROJ\CA0023633\40_PROD\0003-AMR-2024\ | File Name: CA0023633-0003-CH-0001.dwg



Site Digital Mapping Licenced from KIRBY & ASSOCIATES LTD, BING Imagery 2022

0 100 200
1:5,000 METRES

LEGEND

- Quarry Boundary
- Limit of Extraction
- Swales and Drainage Plan
- Surface Water Sampling Location
- Private Dug Well
- Private Drilled Well
- Standpipe
- Observation Well

NOTES

1. Test Well AM7 inaccessible
2. DW1 Formally Degroot
3. DW2 Formally Southwell
4. DW3 Formally Lamarre
5. DW4 Formally McCarthy
6. AMX decommissioned replaced with AMX-R

CLIENT
GIP AGGREGATES INC.

CONSULTANT
wsp

YYYY-MM-DD	2025-01-21
DESIGNED	
PREPARED	JPR
REVIEWED	CSI
APPROVED	DPD

PROJECT
STAN McCARTHY QUARRY
2024 ANNUAL MONITORING REPORT

TITLE
SITE PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
CA0023633	0003	----	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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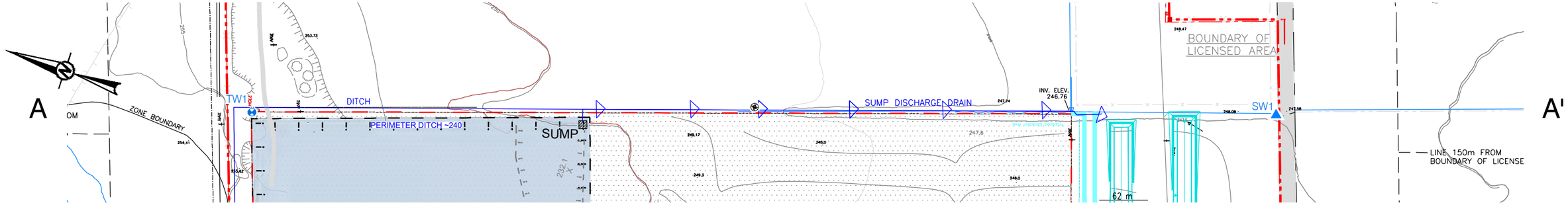

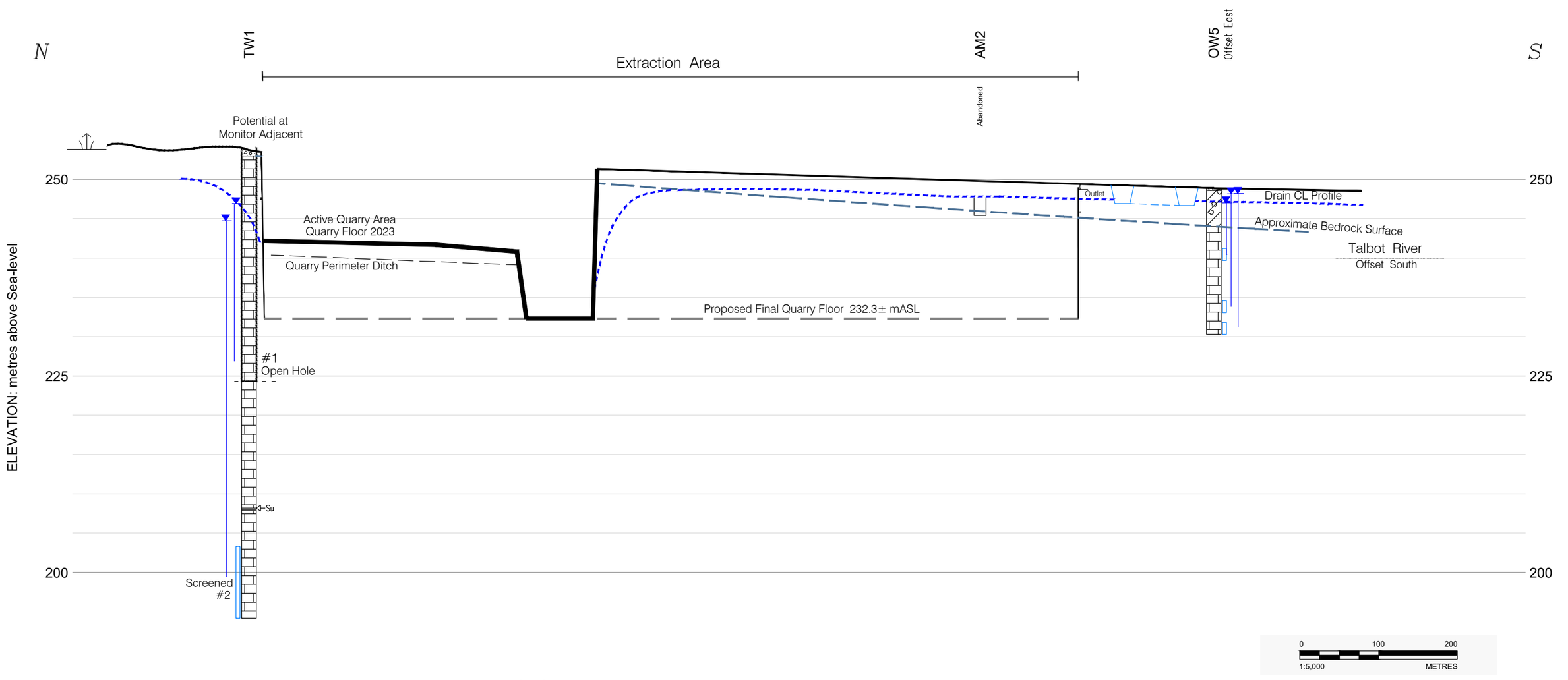

LEGEND

▼ Static Water Level (Monitored October 2024)

NOTES

On all sections, boundaries between soil strata have been determined only at well and test well locations. Between the wells and test wells, boundaries are not proven but are assumed from geological evidence.

Profile of Quarry floor revised 2024 based on floor spot elevations.

CLIENT
GIP AGGREGATES INC.

CONSULTANT
wsp

YYYY-MM-DD	2025-01-21
DESIGNED	
PREPARED	JPR
REVIEWED	CSI
APPROVED	DPD

PROJECT
STAN McCARTHY QUARRY
2024 ANNUAL MONITORING REPORT

TITLE
SITE SECTION A - A'

PROJECT NO.	CONTROL	REV.	FIGURE
CA0023633	0003	----	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

25 mm

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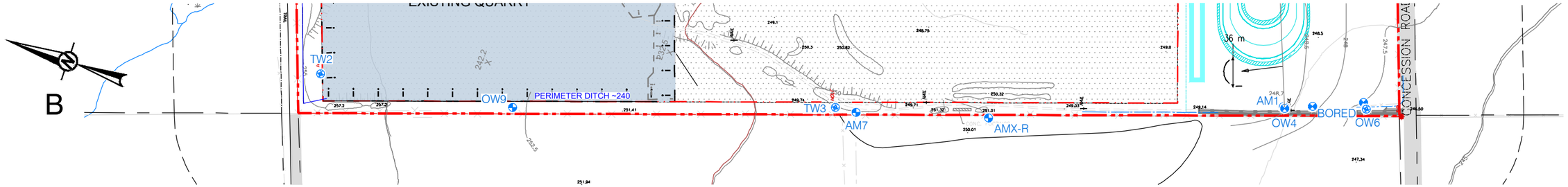

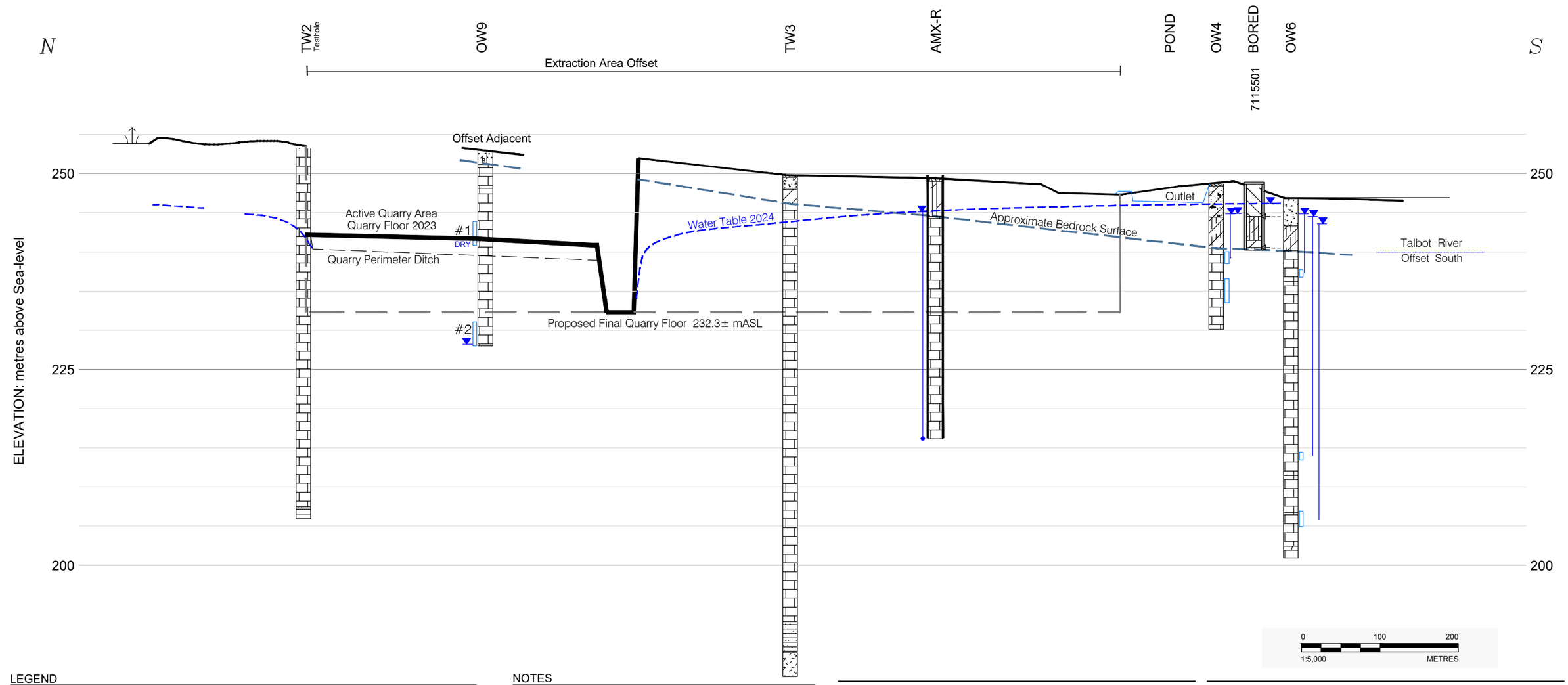

LEGEND

▼ Static Water Level (Monitored October 2024)

NOTES

On all sections, boundaries between soil strata have been determined only at well and test well locations. Between the wells and test wells, boundaries are not proven but are assumed from geological evidence.

Depth of Quarry measured in offset Blast Hole drilling 2014 and reflecting maximum depth. Revised 2024 based on floor spot elevations.

CLIENT
GIP AGGREGATES INC.

CONSULTANT
wsp

YYYY-MM-DD	2025-01-21
DESIGNED	
PREPARED	JPR
REVIEWED	CSI
APPROVED	DPD

PROJECT
STAN McCARTHY QUARRY
2024 ANNUAL MONITORING REPORT

TITLE
SITE SECTION B - B'

PROJECT NO.	CONTROL	REV.	FIGURE
CA0023633	0003	----	4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

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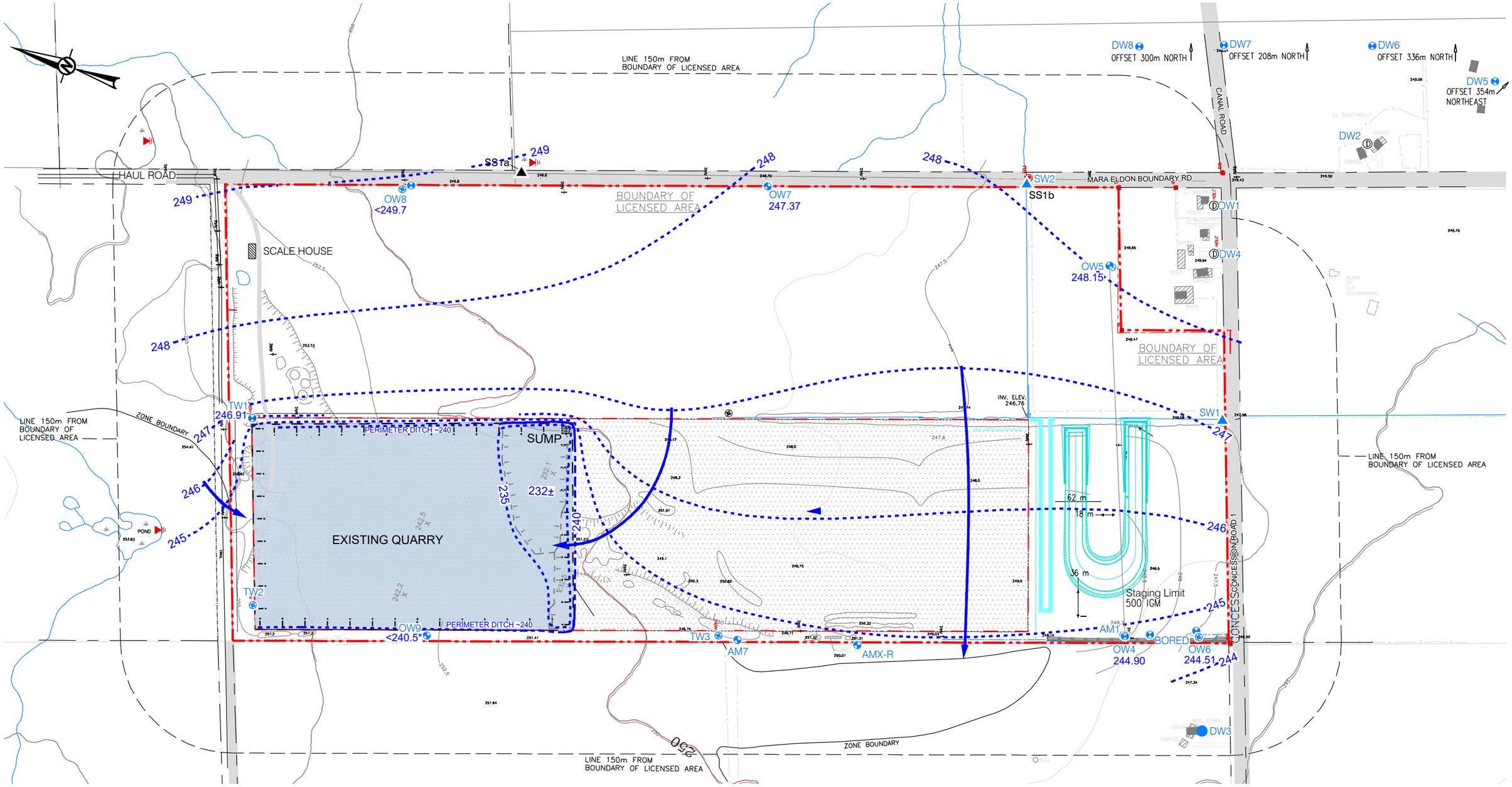

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0 100 200
1:5,000 METRES

LEGEND

- Quarry Boundary
- Limit of Extraction
- Swales and Drainage Plan
- 245.67 Static Water Level (October 2024)
- Equipotential Line (masl)
- Inferred Groundwater Flow (Upper Bobcaygeon)
- ▲ Surface Water Sampling Location
- Ⓓ Private Dug Well
- ● Private Drilled Well
- ■ Standpipe
- Test Well

NOTES

1. Test Well AM7 inaccessible
2. DW1 Formally Degroot
3. DW2 Formally Southwell
4. DW3 Formally Lamarre
5. DW4 Formally McCarthy
6. AMX decommissioned replaced with AMX-R
7. Static levels taken October 22, 2024
8. *OW9 #1 above Quarry Floor, #2 below Floor

CLIENT
GIP AGGREGATES INC.

CONSULTANT
wsp

YYYY-MM-DD	2025-01-21
DESIGNED	
PREPARED	JPR
REVIEWED	CSI
APPROVED	DPD

PROJECT
STAN McCARTHY QUARRY
2024 ANNUAL MONITORING REPORT

TITLE
GROUNDWATER FLOW
BOBCAYGEON (UPPER FORMATION)

PROJECT NO.	CONTROL	REV.	FIGURE
CA0023633	0003	----	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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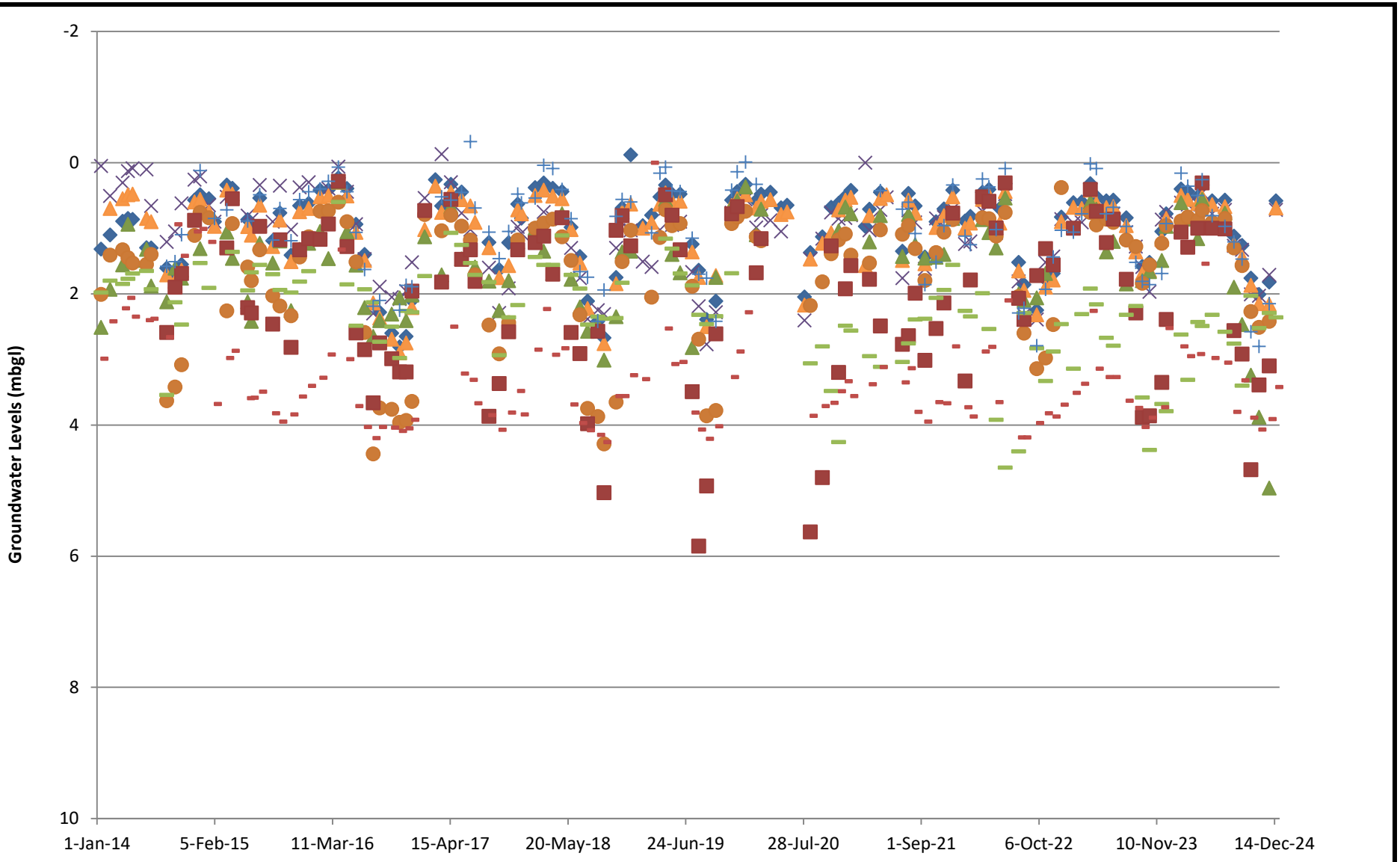


◆ Bored	× OW5-1	▲ AM1b	
▲ DW1	● DW2	■ DW4	
– DW6	+ DW7	- DW8	

wsp

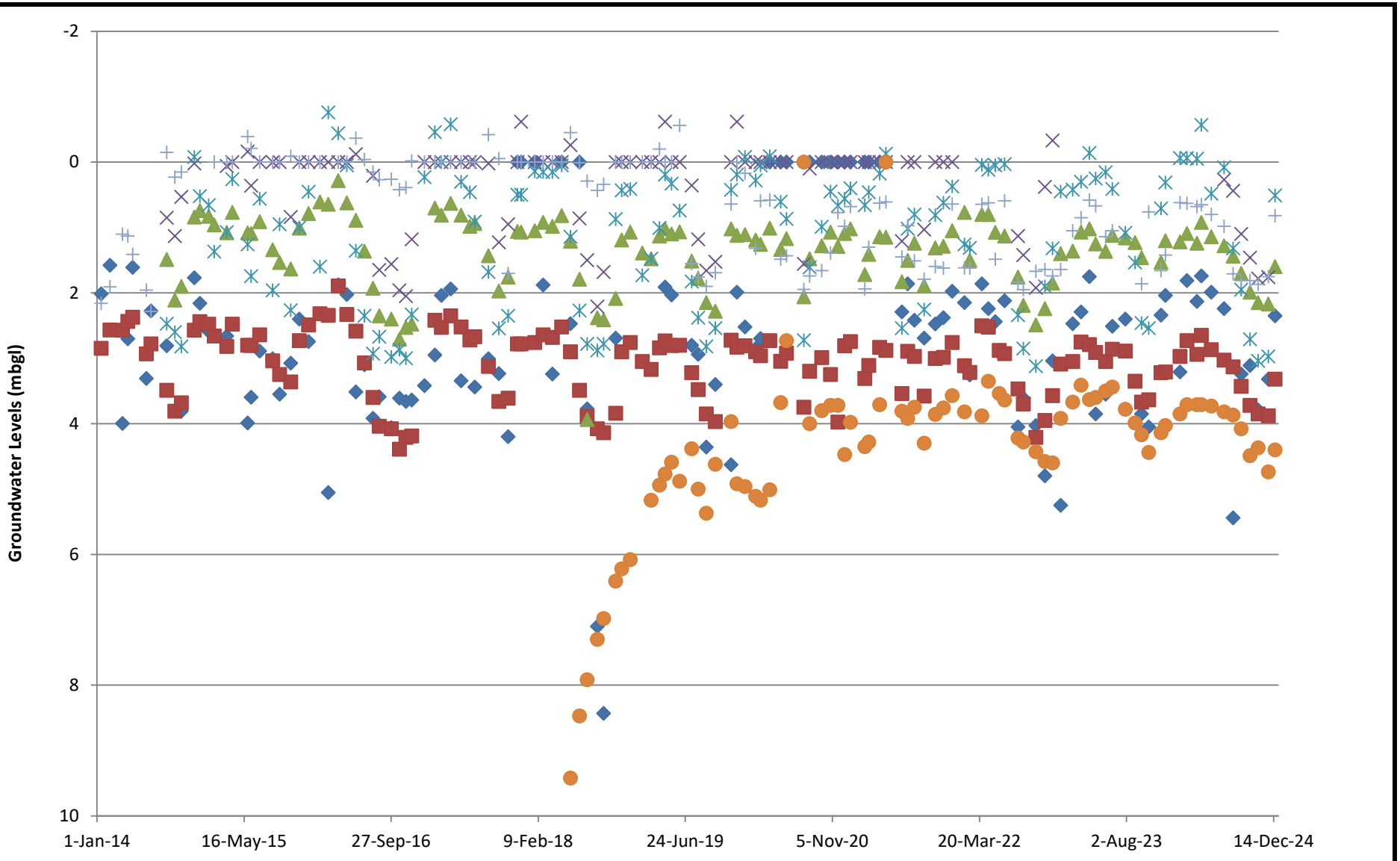
FILE No.		TEST:	
PROJECT No.	CA0023633.8620	REVIEW:	SM

SCALE:	NTS
DATE:	30-Jan-25
CAD:	CSI

McCarthy Quarry
Overburden Monitoring Wells
Groundwater Levels

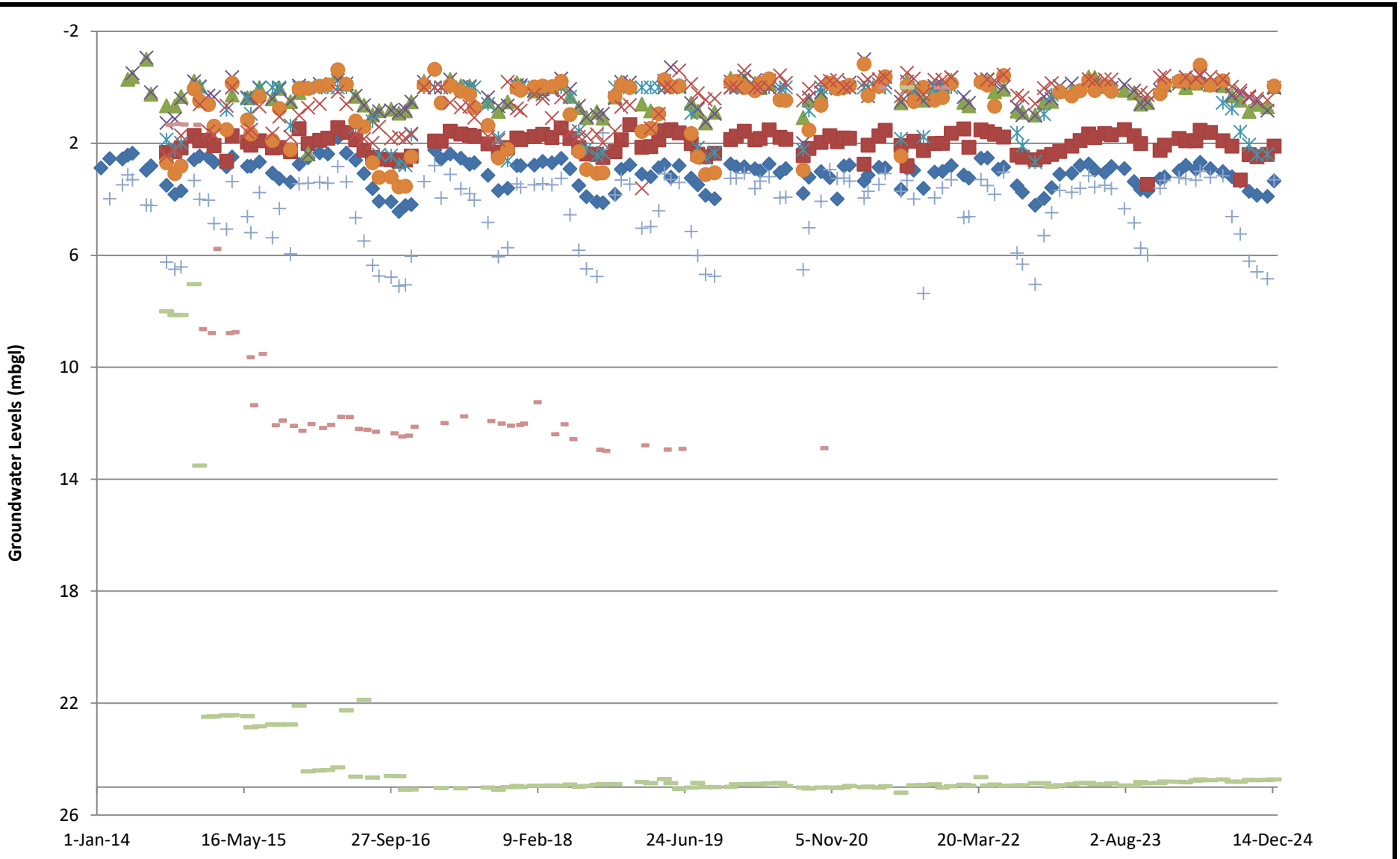
Green Infrastructure Partners Inc.
2024 Annual Monitoring Report

FIGURE No
6

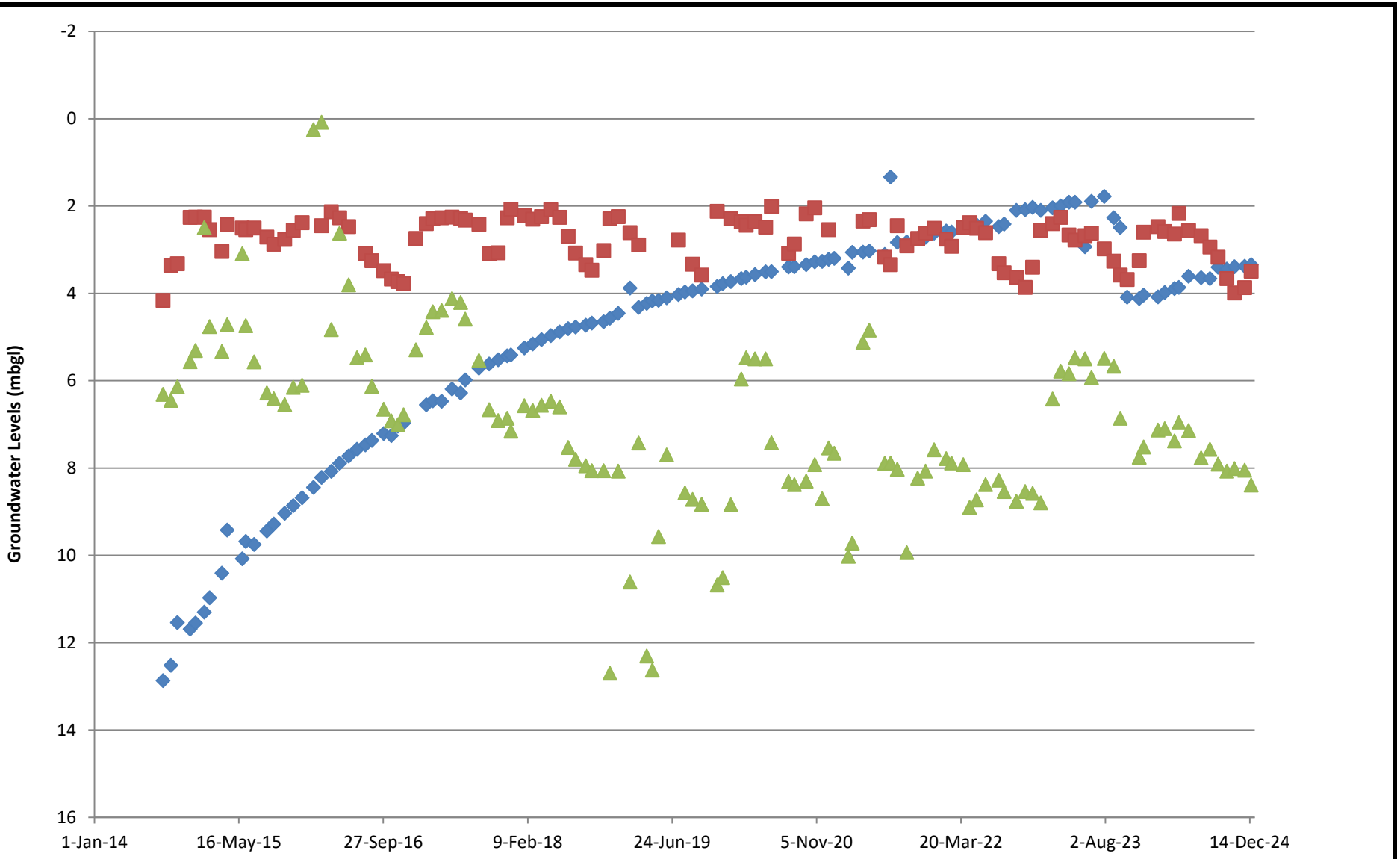


DW3 OW4-1 OW6-1
OW7-1 OW8-1 Amx-R
CKL-1

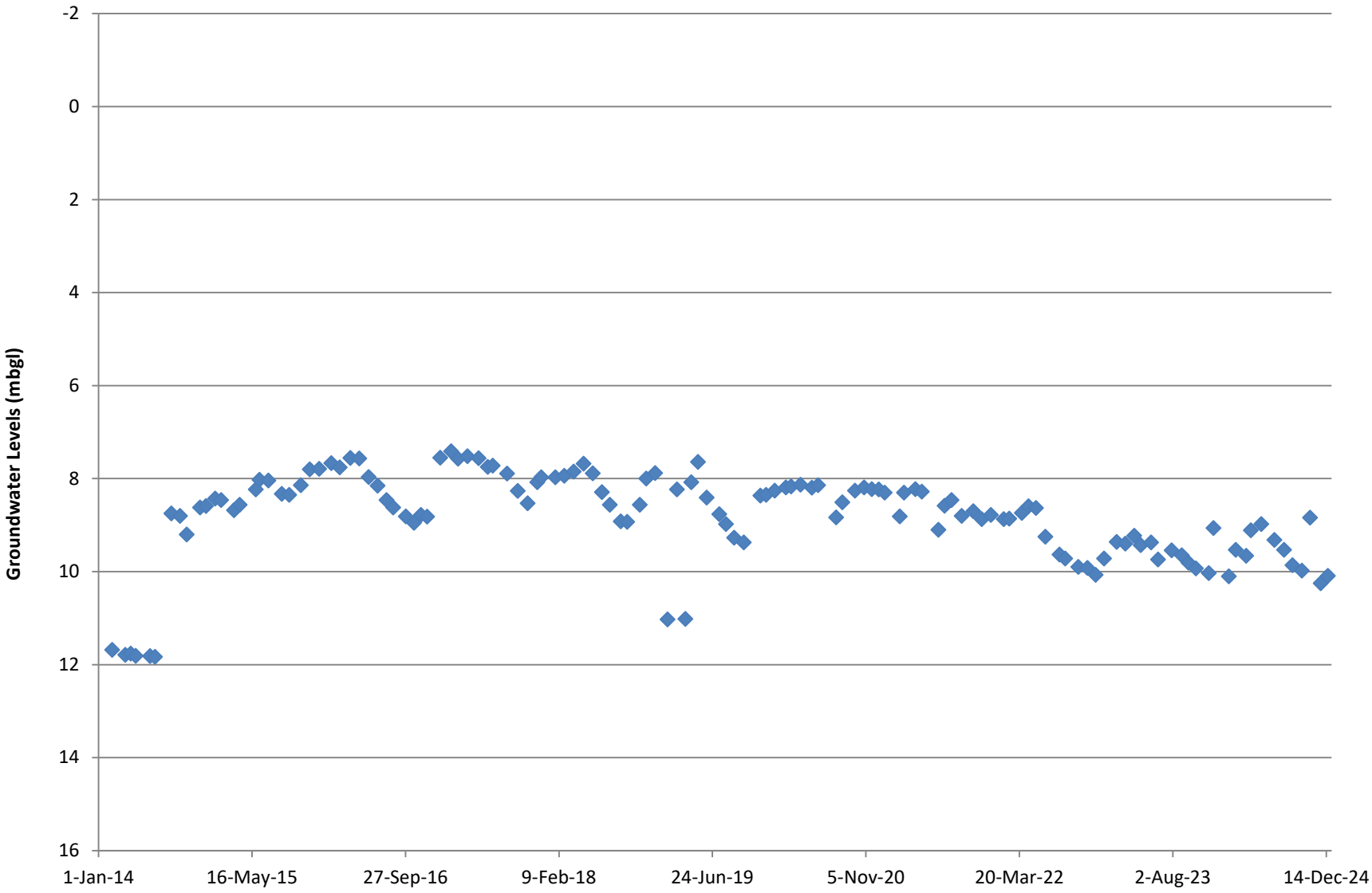
		SCALE: NTS	**McCarthy Quarry** **Verulam Monitoring Wells** **Groundwater Levels**
		DATE: 30-Jan-25	
		CAD: CSI	
FILE No.		TEST:	Green Infrastructure Partners Inc. 2024 Annual Monitoring Report
PROJECT No.	CA0023633.8620	REVIEW: SM	FIGURE No **7**



◆ OW4-2 ■ OW6-2 ▲ OW5-2		SCALE: NTS	**McCarthy Quarry**
× OW5-3 ✳ OW7-2 ● OW8-2		DATE: 30-Jan-25	**Bobcaygeon Monitoring Wells**
+ TW1-1 - OW9-1 — OW9-2		CAD: CSI	**Groundwater Level**
× CLK-2	FILE No.	TEST:	Green Infrastructure Partners Inc.
	PROJECT No. CA0023633.8620	REVIEW: SM	2024 Annual Monitoring Report
			FIGURE No 8



	SCALE: NTS	**McCarthy Quarry**	
	DATE: 30-Jan-25	**Gull River Monitoring Wells**	
	CAD: CSI	**Groundwater Level**	
FILE No.	TEST:	Green Infrastructure Partners Inc.	FIGURE No
PROJECT No. CA0023633.8620	REVIEW: SM	2024 Annual Monitoring Report	9



◆ TW1-2

	SCALE: NTS	**McCarthy Quarry**	
	DATE: 30-Jan-25	**Precambrian Monitoring Wells**	
	CAD: CSI	**Groundwater Level**	
FILE No.	TEST:	Green Infrastructure Partners Inc.	FIGURE No
PROJECT No. CA0023633.8620	REVIEW: SM	2024 Annual Monitoring Report	**10**

APPENDIX A

PTTW No. 5184-CQ7MQS

AMENDED PERMIT TO TAKE WATER

Ground Water
NUMBER 5184-CQ7MQS

Pursuant to Section 34.1 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

GIP Aggregates Inc.
949 Wilson Ave
Toronto, Ontario, M3K 1G2
Canada

For the water taking from: Quarry Sump

Located at: Lot 1, Concession 1, Geographic Township of Mara
Ramara, County of Simcoe

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

DEFINITIONS

(a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34.1, OWRA.

(b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.

(c) "Ministry" means Ontario Ministry of the Environment, Conservation and Parks.

(d) "District Office" means the Barrie District Office.

(e) "Permit" means this Permit to Take Water No. 5184-CQ7MQS including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA.

(f) "Permit Holder" means GIP Aggregates Inc..

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

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

TERMS AND CONDITIONS

1. Compliance with Permit

1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated October 31, 2019 and signed by Jenny Coco, and all Schedules included in this Permit.

1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.

1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.

1.4 This Permit is not transferable to another person without the Director's written consent.

1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.

1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.

1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change.

2. General Conditions and Interpretation

2.1 Inspections

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act*, R.S.O. 1990, the *Pesticides Act*, R.S.O. 1990, or the *Safe Drinking Water Act,* S. O. 2002.

2.2 Other Approvals

The issuance of, and compliance with this Permit, does not:

(a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act*, and the *Environmental Protection Act*, and any regulations made thereunder; or

(b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

(a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or

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

2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

3. Water Takings Authorized by This Permit

3.1 **Expiry**

This Permit expires on **January 31, 2025**. No water shall be taken under authority of this Permit after the expiry date.

3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

Table A

	Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1	Quarry Sump	Pond Connected	Pits and Quarries	Dewatering	4,545	24	6,544,800	250	17 650950 4933500
						Total Taking:	6,544,800		

3.3 Notwithstanding Table A, the **maximum taking per year** from **Source 1** (Quarry Sump) is 196,500,000 litres.

4. Monitoring

4.1 The Permit Holder shall not lower the water in the quarry below an elevation of 232.0 metres above sea level.

4.2 The Permit Holder shall conduct daily water level monitoring with the use of pressure transducers and data loggers at:

a) The residential well known by the MOE Water Well Record Number 5727662 and identified as well DW3 on Figure 2 in Item 2 of Schedule A of this Permit, if granted permission by the property owner.

b) The monitoring wells named OW4-1, OW4-2, OW5-1, OW6-1, OW6-2, OW8-3, OW9-2, and Bored Well (shown on Figure 2, in Item 2 of Schedule A of this Permit).

c) The City of Kwartha Lakes monitoring well CKL-1, if granted permission by the property owner.

These pressure transducers and data loggers shall be inspected and downloaded at least every 6 months.

4.3 The Permit Holder shall conduct monthly water level monitoring with the use of a manual water level meter at:

a) The residential well known by the MOE Water Well Record Number 5727662 and identified as well DW3 on Figure 2 in Item 2 of Schedule A of this Permit, if granted permission by the property owner.

b) The residential wells named DW1, DW2, and DW4, if granted permission by the property owner (shown on Figure 2, in Item 2 of Schedule A of this Permit).

c) The monitoring wells named AM1b, AMX-R, TW1-1, OW4-1, OW4-2, OW5-1, OW5-2, OW5-3, OW6-1, OW6-2, OW6-3, OW7-1, OW7-2, OW7-3, OW8-1, OW8-2, OW8-3, OW9-1, OW9-2, and Bored Well (shown on Figure 2 in Item 2 of Schedule A of this Permit).

d) The City of Kwartha Lakes monitoring wells CKL-1 and CKL-2, if granted permission by the property owner.

The Permit Holder may suspend monthly water level monitoring under Condition 4.3 for the months of January and/or February if no water is taken from the quarry on those months.

4.4 The Permit Holder shall, if granted permission by the property owner, measure and record static water levels in the residential wells named DW6, DW7, and DW8, as shown on Figure 2 in Item 2 of Schedule A of this Permit, at least once in every two (2) month period during which water is taken from the quarry. The Permit Holder may suspend monthly water level monitoring under Condition 4.4 for the months of January and/or February if no water is taken from the quarry on those months.

4.5 The Permit Holder shall, if granted permission by the property owner, on a semi-annual basis collect raw water samples from the residential wells named DW1, DW2, and the well identified in condition 4.2(a). Each sample shall be tested, at a minimum, for the parameters listed in Table 1 below:

Table 1: Water Quality Parameters for Residential Wells

pH	Sulphate	DOC	Copper
Alkalinity (CaCO3)	Magnesium	Colour	Iron
Bicarbonate	Calcium	Turbidity	Lead
Conductivity	Sodium	Aluminium	Manganese
Fluoride	Potassium	Arsenic	Selenium
Chloride	Ammonia (N)	Barium	Zinc
Nitrate	Phosphate	Boron	Hardness (CaCO3)
Nitrite	Phosphorus	Cadmium	TDS (iron sum calc.)
Chromium	Anion Sum	Ion Ratio	Langelier Index
Tannins	Cation Sum	% Difference	

The Permit Holder shall immediately report to the respective well owner, the Director, and District Office any sampling result that exceeds the Ontario Drinking Water Quality Standards as prescribed by O.Reg. 169/03, as amended.

4.6 The Permit Holder shall on a semi-annual basis conduct the groundwater quality monitoring from the on-site groundwater monitors listed in Table 2. Each sample shall be tested, at a minimum, for the parameters listed in Table 3.

Table 2: On-Site Groundwater Monitors for Water Quality Sampling

AM1b	OW4-I	OW5-III	OW8-I
AMX-R	OW4-II	OW6-II	OW8-II
TW1-1	OW5-I	OW7-I	OW9-I
Bored Well	OW5-II	OW7-II	OW9-II

Table 3: Water Quality Parameters for On-Site Groundwater Monitors

pH	Magnesium	Sulphate	Conductivity
Alkalinity	Calcium	Nitrate	DOC
Bicarbonate	Sodium	Nitrite	Colour
Fluoride	Potassium	Phosphate	TDS
Chloride	Ammonia	Phosphorus	Hardness

4.7 The Permit Holder shall notify the Director, in writing, within 30 days if the groundwater level or groundwater quality monitoring of any well listed under conditions 4.2, 4.3, 4.4, 4.5, and 4.6 is not possible, including being denied access to a private well. In the event of damage or loss of any monitoring well, monitoring devices or related equipment, the Permit Holder shall be allowed 30 calendar days from the date of discovery of the occurrence to repair or replace equipment. If a well is too damaged to be repaired or monitored, or if the well is deemed unsafe to be monitored, then the Director will decide if a replacement well is required and will modify the appropriate monitoring conditions in a written letter to the Permit Holder.

4.8 The Permit Holder shall maintain a record of all water takings. This record shall include the dates and times of water takings, and the total measured or calculated amounts for water pumped per day for each day that water is taken under the authorization of this Permit.

4.9 The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request.

4.10 The Permit Holder shall provide to the Director an annual monitoring report no later than March 1 each year during the life of this Permit. The annual monitoring report shall be prepared by an individual with P.Geo. or equivalent qualifications and shall include, at a minimum:

a) The review and assessment of all monitoring data required by this Permit.

b) An up-date of the quarry operations and predicted quarrying and dewatering for the next twelve (12) months.

c) An assessment of the groundwater trends using the on-site on off-site monitoring data. This analysis should state the actual impact area of quarry dewatering and determine the potential for off-site impacts. If any impacts are predicted then a detailed mitigation plan shall be included within this report.

d) Analysis that includes amount of water pumped, precipitation data, and an estimate of how much groundwater was pumped versus surface water.

e) Figures that include site maps with current quarry depths, groundwater contour maps, impact area of quarry dewatering, groundwater elevation graphs, and geological cross-sections.

f) Any groundwater interference complaints.

g) Description of all communication with the public.

h) Conclusions and recommendations, if any, to improve the monitoring and reporting at the site.

An electronic copy of the data collected must also accompany the report.

4.11 The Permit Holder shall make available on a publicly-accessible site on the internet the water quality and quantity data that it is required to monitor and record under this Permit and O.Reg. 387/04, as amended, and a copy of every report that is required to be prepared under this Permit. For greater clarity, the Permit Holder shall not publish any personal information as defined by the *Freedom of Information and Protection of Privacy Act,* R.S.O. 1990, c. F.31, as amended.

4.12 The Permit Holder shall maintain a Public Liaison Committee ("PLC") comprised of not more than seven (7) members that will meet at least once every four (4) months, unless the majority of the PLC decide that more or less frequent meetings are required. The PLC shall be comprised of: two (2) members appointed by the Permit Holder - one of whom shall act as Chairperson; one (1) member from each of the Township and the County, if they wish to have representatives; and three (3) members appointed by the public, if they wish to have representatives, who must be permanent residents within a 3 kilometre radius of the quarry property. The PLC shall serve in an advisory / community liaison role and shall have no powers to direct the Permit Holder or the Ministry.

4.13 Any request for an amendment or renewal of this Permit must be accompanied by a report prepared by an individual with P.Geo. or equivalent qualifications and shall include, at a minimum:

a) The review and assessment of all monitoring data required by this Permit.

b) An up-date of the quarry operations and predicted quarrying and dewatering for the duration of the requested permit.

c) An assessment of the groundwater trends using the on-site and off-site monitoring data. This analysis should state the actual impact area of quarry dewatering and determine the potential for off-site impacts. If any impacts are predicted then a detailed mitigation plan shall be included within this report.

d) Analysis that includes amount of water pumped, precipitation data, and an estimate of how much groundwater was pumped versus surface water.

e) Figures that include site maps with current quarry depths, groundwater contour maps, impact area of quarry dewatering, groundwater elevation graphs, and geological cross-sections.

f) Any groundwater interference complaints.

g) Description of all communication with the public.

h) Conclusions and recommendations, if any, to improve the monitoring and reporting at the site.

An electronic copy of the data collected must also accompany the report. Any application for renewal of this Permit must be submitted to the Ministry at least ninety (90) days prior to the expiry of this Permit.

4.14 The Permit Holder shall, as directed by the Ministry, participate in a cumulative impact assessment for the Carden Plain Area with other quarry operators who have been issued a permit to take water in this area.

5. Impacts of the Water Taking

5.1 Notification

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

5.2 For Groundwater Takings

If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking

to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

5.2.1 Where the water supply provided by the well known by MOE Water Well Record Number 5727662 is restored in accordance with Condition 5.2, the Permit Holder shall restore the supply in a manner satisfactory to the Director, taking into account the residential needs, requirements and preferences of the persons serviced by the well.

5.3 Upon the receipt of a groundwater interference complaint, the Permit Holder shall:

a) Implement the McCarthy Quarry Complaint Resolution Process as described in Item 3 of Schedule A of this Permit.

b) In addition, appropriate notification and actions must be taken as described in conditions 5.1 and 5.2 of this Permit. The provisions of conditions 5.1 and 5.2 shall take precedence over the provisions of condition 5.3(a) if there is a conflict.

6. Director May Amend Permit

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act* , Section 100 (4).

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

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.

2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.

3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

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

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

In addition to these legal requirements, the Notice should also include:

a. The name of the appellant;
b. The address of the appellant;
c. The Permit to Take Water number;
d. The date of the Permit to Take Water;
e. The name of the Director;
f. The municipality within which the works are located;

This notice must be served upon:

The Secretary
Environmental Review Tribunal
*Registrar**
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

AND

The Director, Section 34.1,
Ministry of the Environment, Conservation and Parks
Floor 1, 135 St Clair Ave W
Toronto, ON
M4V 1P5

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:

by Telephone at	by Fax at	by e-mail at
(416) 212-6349	(416) 326-5370	www.ert.gov.on.ca
Toll Free 1(866) 448-2248	Toll Free 1(844) 213-3474	

This Permit cancels and replaces Permit Number 1603-BKTPQH, issued on 2020/01/31.

Dated at Toronto this 27th day of March, 2023.

Archana Uprety
Director, Section 34.1
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 5184-CQ7MQS, dated March 27, 2023.

1. Permit to Take Water Application, dated October 23, 2019 and signed by Jenny Coco.

2. Golder Associates Ltd. (November 1, 2019). Hydrogeological Assessment, Permit to Take Water Renewal, McCarthy Quarry.

3. McCarthy Quarry Complaint Resolution Process, Golder Associates Ltd. November 2014.

4. Request to change name on Permit to Take Water No. 1603-BKTPQH signed by Anthony Rossi and dated March 6, 2023.

Ministry of the Environment, Conservation and Parks
1st Floor
135 St Clair Ave W
Toronto ON M4V 1P5
Fax: (416) 314-8452
Telephone: (437) 213-7120

Ministère de l'Environnement, de la Protection de la nature et des Parcs
135 av St Clair O
Toronto ON M4V 1P5
Télécopieur : (416) 314-8452
Téléphone : (437) 213-7120

Ontario

November 5, 2024

GIP Aggregates Inc.
100 Commerce Valley Drive West
Markham, Ontario
L3T 0A1

Dear Gerald Quinlan:

Re: Application for Approval of Permit To Take Water
Renewal to PTTW No. 5184-CQ7MQS \ one (1) pond \ Pits and Quarries purpose
Township of Ramara, County of Simcoe
Reference Number 6828-DAQVD2

We acknowledge receipt of your application for a Permit to Take Water for a Renewal of Permit 5184-CQ7MQS, received on November 4, 2024, for:

Site Location: McCarthy Quarry - 2240 Mara Eldon Boundary Road
Lot 1 Concession 1 Original Township of Mara
Township of Ramara, County of Simcoe

The Ministry's reference number for your application is 6828-DAQVD2. Please quote this number in any correspondence or enquiries regarding this application.

In our screening of your application for completeness, we have noted that the following additional information/documentation is necessary for us to process your application:

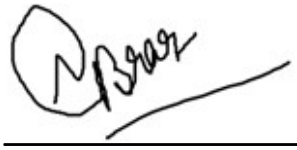
1. Please provide signature of an individual on the application form from an Officer or Director of the company. If not please provide a letter granting signing authority.

Total fees required for your application is $3000. To submit payment:
Complete the payment page of the application form (staple the Cheque/Money Order (made out to: Minister of Finance) or provide your credit card information).
Attach a copy of this letter to the payment page.
Send your payment information to the address above

Please be advised that should we not receive the above information/documentation or a response with explanation within two weeks of the date of this letter, we will consider your application to be withdrawn, and close your file accordingly.

If you have any questions regarding the technical information required for your Permit to Take Water Application please contact our Central Region Office at nicole.hughston@ontario.ca. Should you have any general questions regarding your application please feel free to contact me at the above telephone number. Information regarding Permits to Take Water is also available at www.ene.gov.on.ca.

Sincerely,

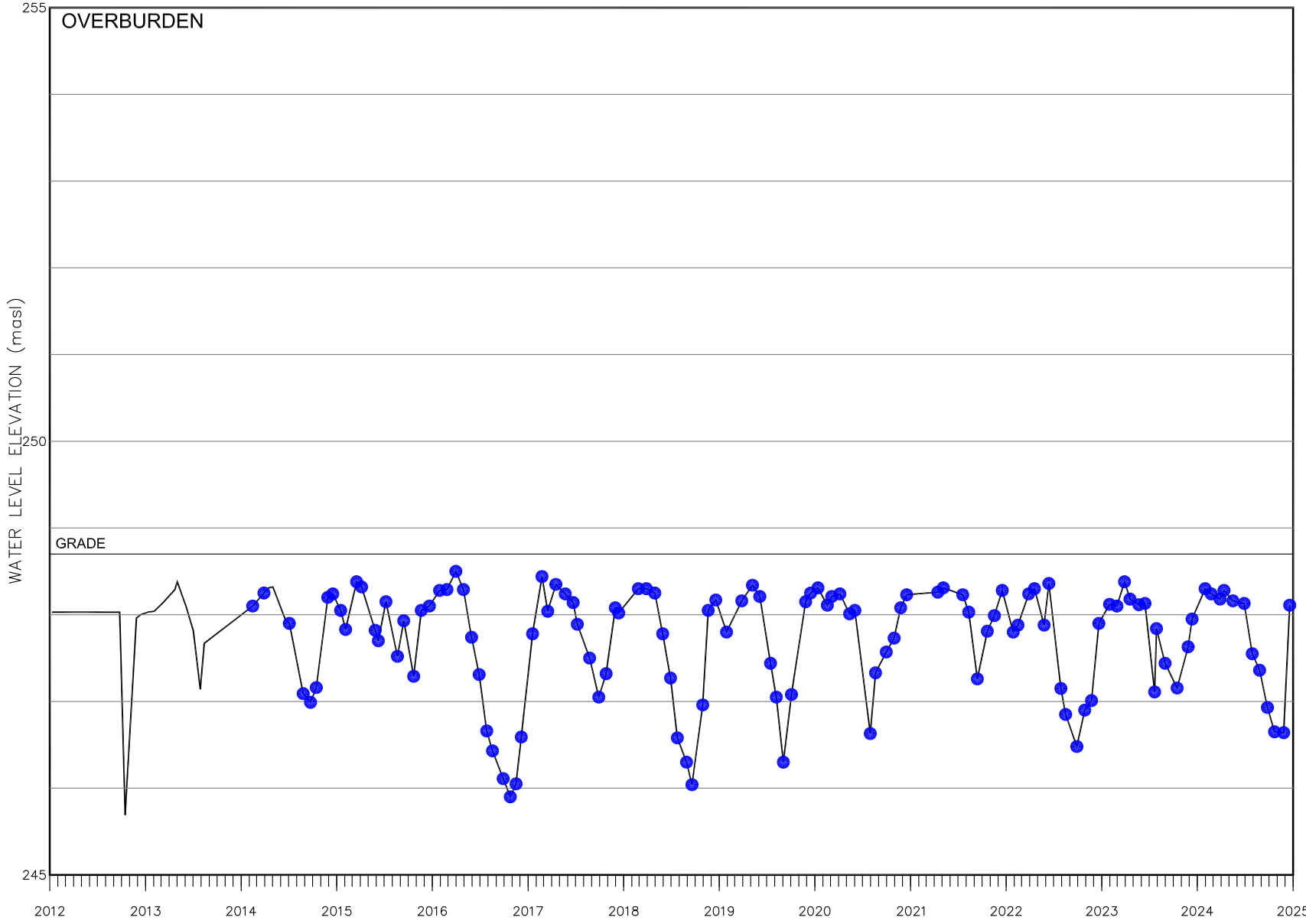


Navneet Brar
Application Assessment Officer
Client Services and Permissions Branch

APPENDIX B

Hydrographs

AM1B



MP Elevation 249.45 masl
Grade 248.7 masl

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18-Feb-20	248.11
06-Mar-20	248.21
06-Apr-20	248.24
13-May-20	248.01
02-Jun-20	248.05
31-Jul-20	246.63
20-Aug-20	247.33
30-Sep-20	247.57
30-Oct-20	247.73
24-Nov-20	248.08
17-Dec-20	248.23
15-Apr-21	248.26
06-May-21	248.31
19-Jul-21	248.23
11-Aug-21	248.03
13-Sep-21	247.26
21-Oct-21	247.81
17-Nov-21	247.99
17-Dec-21	248.28
28-Jan-22	247.80
15-Feb-22	247.88
28-Mar-22	248.24
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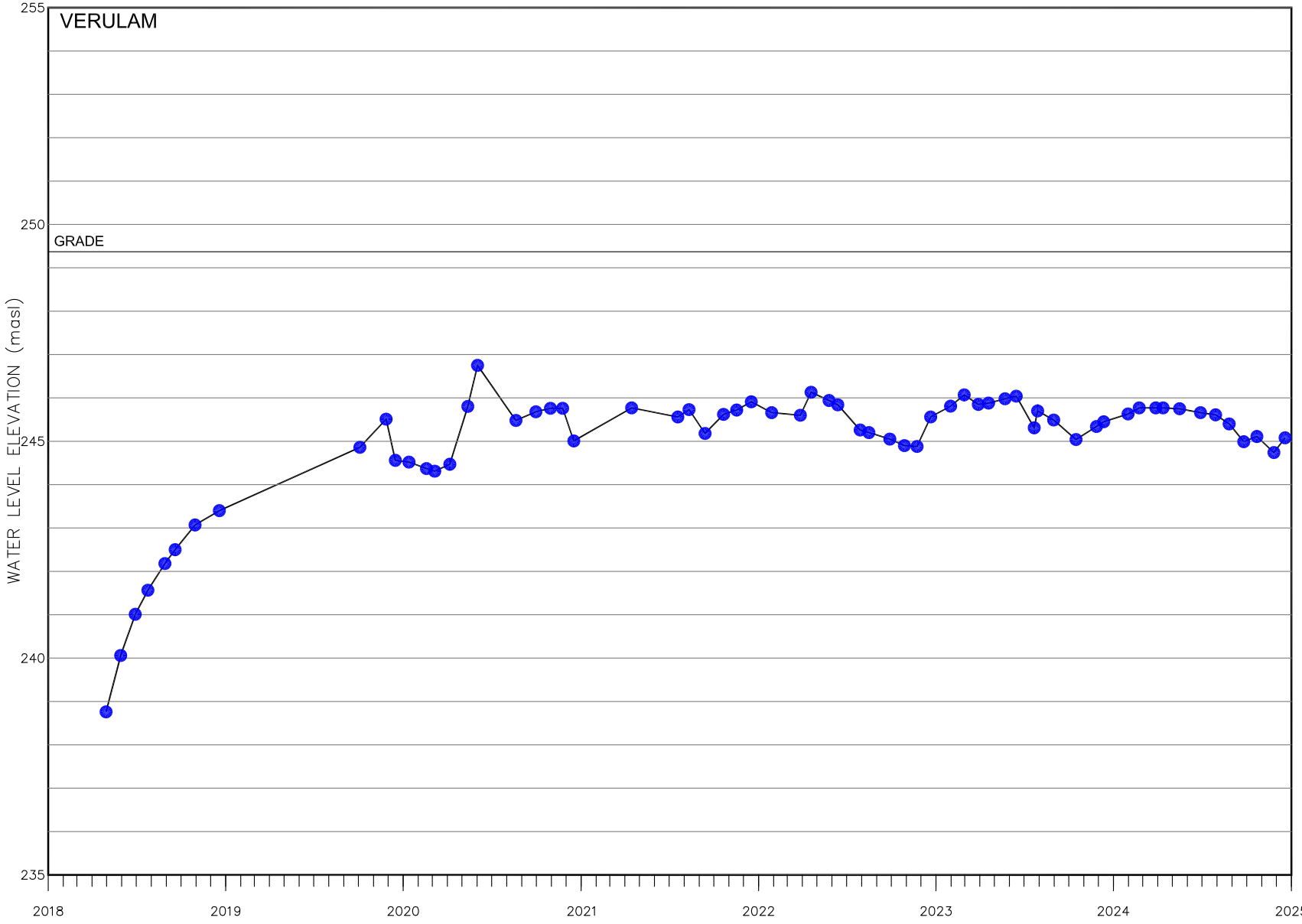
13-Jun-22	248.36
29-Jul-22	247.15
16-Aug-22	246.85
28-Sep-22	246.48
28-Oct-22	246.90
23-Nov-22	247.01
21-Dec-22	247.90
31-Jan-23	248.12
28-Feb-23	248.10
29-Mar-23	248.38
19-Apr-23	248.18
23-May-23	248.12
15-Jun-23	248.13
22-Jul-23	247.11
29-Jul-23	247.84
31-Aug-23	247.44
16-Oct-23	247.15
27-Nov-23	247.63
12-Dec-23	247.95
31-Jan-24	248.30
23-Feb-24	248.24
28-Mar-24	248.18
12-Apr-24	248.28
16-May-24	248.16
28-Jun-24	248.13
29-Jul-24	247.55
26-Aug-24	247.36
25-Sep-24	246.93
22-Oct-24	246.65
26-Nov-24	246.64
19-Dec-24	248.11

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W001

AMX-R



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Grade 249.4 masl

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18-Feb-20	244.37
06-Mar-20	244.31
06-Apr-20	244.47
13-May-20	245.80
02-Jun-20	246.75
20-Aug-20	245.48
30-Sep-20	245.68
30-Oct-20	245.76
24-Nov-20	245.76
17-Dec-20	245.01
15-Apr-21	245.77
19-Jul-21	245.56
11-Aug-21	245.73
13-Sep-21	245.18
21-Oct-21	245.62
17-Nov-21	245.72
17-Dec-21	245.91
28-Jan-22	245.66
28-Mar-22	245.60
19-Apr-22	246.13
26-May-22	245.94
13-Jun-22	245.84
29-Jul-22	245.26
16-Aug-22	245.20
28-Sep-22	245.05
28-Oct-22	244.90
23-Nov-22	244.88
21-Dec-22	245.56
31-Jan-23	245.81
28-Feb-23	246.07
29-Mar-23	245.85
19-Apr-23	245.88
23-May-23	245.98
15-Jun-23	246.04
22-Jul-23	245.31
29-Jul-23	245.70
31-Aug-23	245.49
16-Oct-23	245.04
27-Nov-23	245.34
12-Dec-23	245.45
31-Jan-24	245.63
23-Feb-24	245.77
28-Mar-24	245.77
12-Apr-24	245.77
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28-Jun-24	245.66
29-Jul-24	245.61
26-Aug-24	245.40
25-Sep-24	244.99
22-Oct-24	245.11
26-Nov-24	244.74
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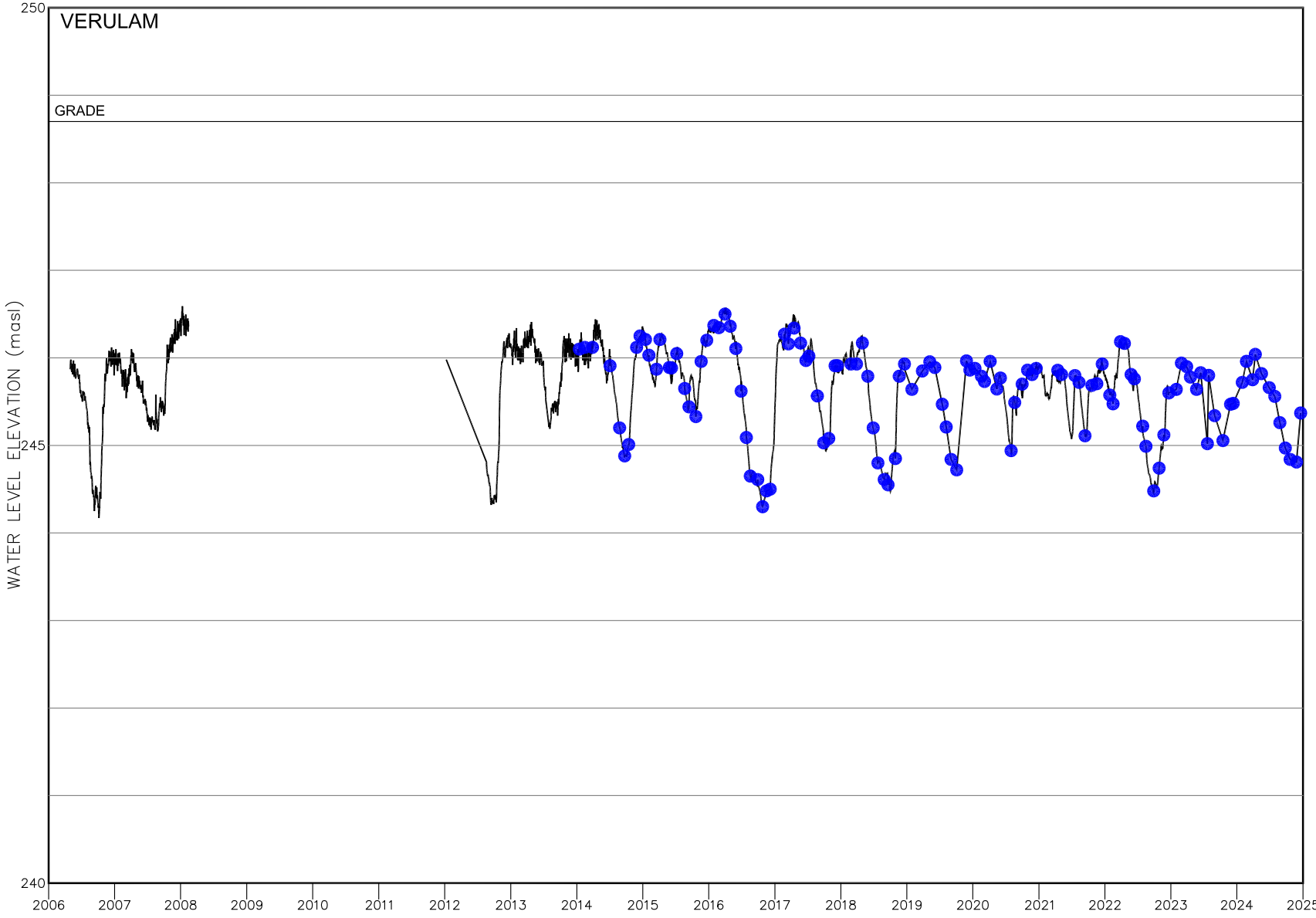
GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W002

OW4#1



MP Elevation 249.57 masl
Grade 248.7 masl

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22-Nov-22	245.11
23-Nov-22	245.12
24-Nov-22	245.09
25-Nov-22	245.09
26-Nov-22	245.10
27-Nov-22	245.10
28-Nov-22	245.13
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04-Dec-22	245.47
05-Dec-22	245.51
06-Dec-22	245.55
07-Dec-22	245.58
08-Dec-22	245.62
09-Dec-22	245.65
10-Dec-22	245.67
11-Dec-22	245.67
12-Dec-22	245.67
13-Dec-22	245.68
14-Dec-22	245.68
15-Dec-22	245.66
16-Dec-22	245.62
17-Dec-22	245.59
18-Dec-22	245.57
19-Dec-22	245.58
20-Dec-22	245.60
21-Dec-22	245.60
31-Jan-23	245.64
28-Feb-23	245.94
29-Mar-23	245.90
19-Apr-23	245.78
23-May-23	245.64
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22-Jul-23	245.02
29-Jul-23	245.80
31-Aug-23	245.34
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23-Feb-24	245.96
28-Mar-24	245.75
12-Apr-24	246.04
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28-Jun-24	245.66
29-Jul-24	245.56
26-Aug-24	245.26
25-Sep-24	244.97
22-Oct-24	244.84
26-Nov-24	244.81
19-Dec-24	245.37

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W003

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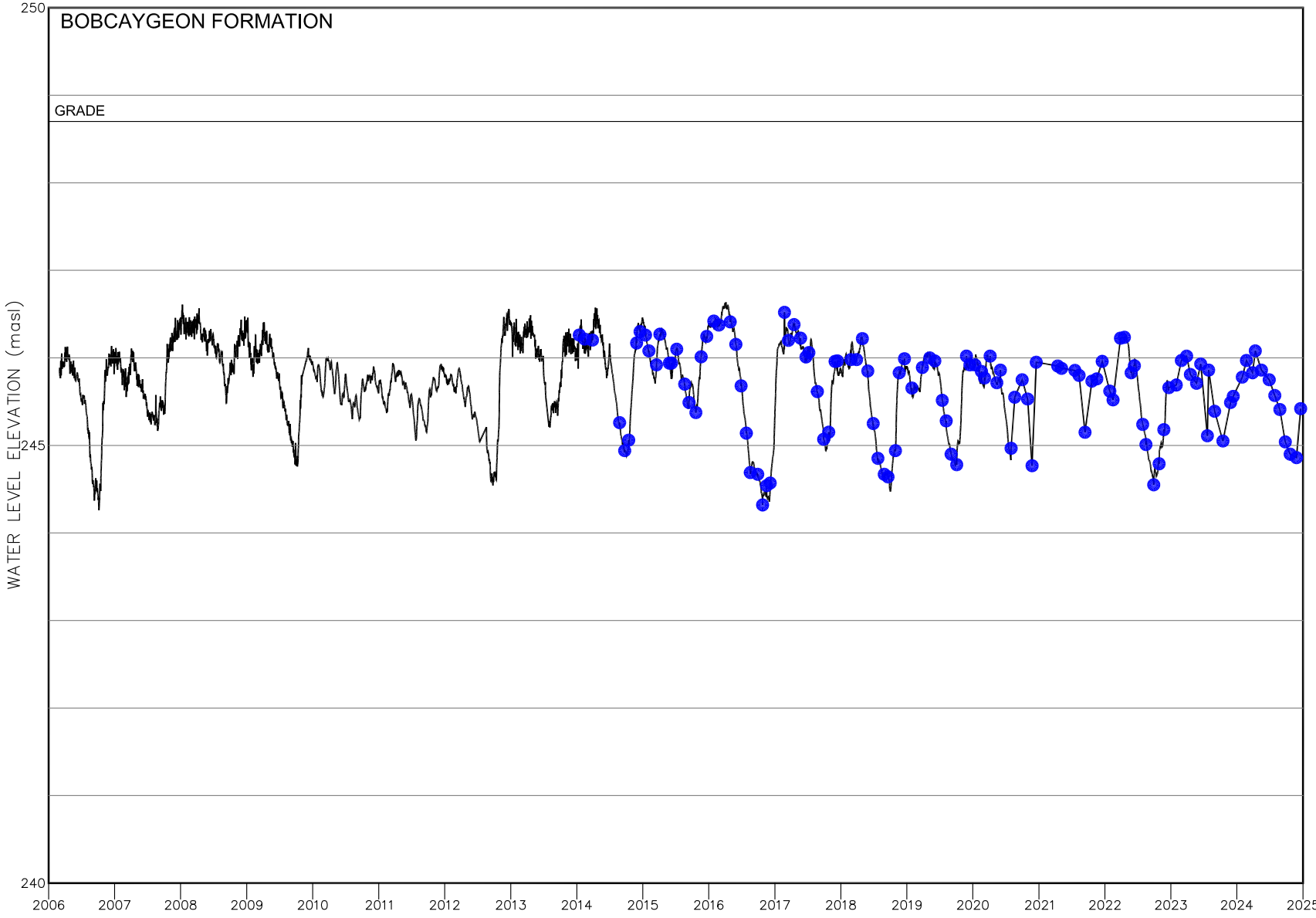

MP Elevation 249.62 masl
Grade 248.7 masl

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23-Nov-22	245.18
24-Nov-22	245.17
25-Nov-22	245.16
26-Nov-22	245.17
27-Nov-22	245.17
28-Nov-22	245.20
29-Nov-22	245.26
30-Nov-22	245.28
01-Dec-22	245.36
02-Dec-22	245.43
03-Dec-22	245.48
04-Dec-22	245.54
05-Dec-22	245.58
06-Dec-22	245.62
07-Dec-22	245.65
08-Dec-22	245.68
09-Dec-22	245.71
10-Dec-22	245.73
11-Dec-22	245.73
12-Dec-22	245.73
13-Dec-22	245.74
14-Dec-22	245.73
15-Dec-22	245.71
16-Dec-22	245.68
17-Dec-22	245.65
18-Dec-22	245.63
19-Dec-22	245.63
20-Dec-22	245.65
21-Dec-22	245.66
31-Jan-23	245.69
28-Feb-23	245.97
29-Mar-23	246.02
19-Apr-23	245.81
23-May-23	245.71
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31-Jan-24	245.78
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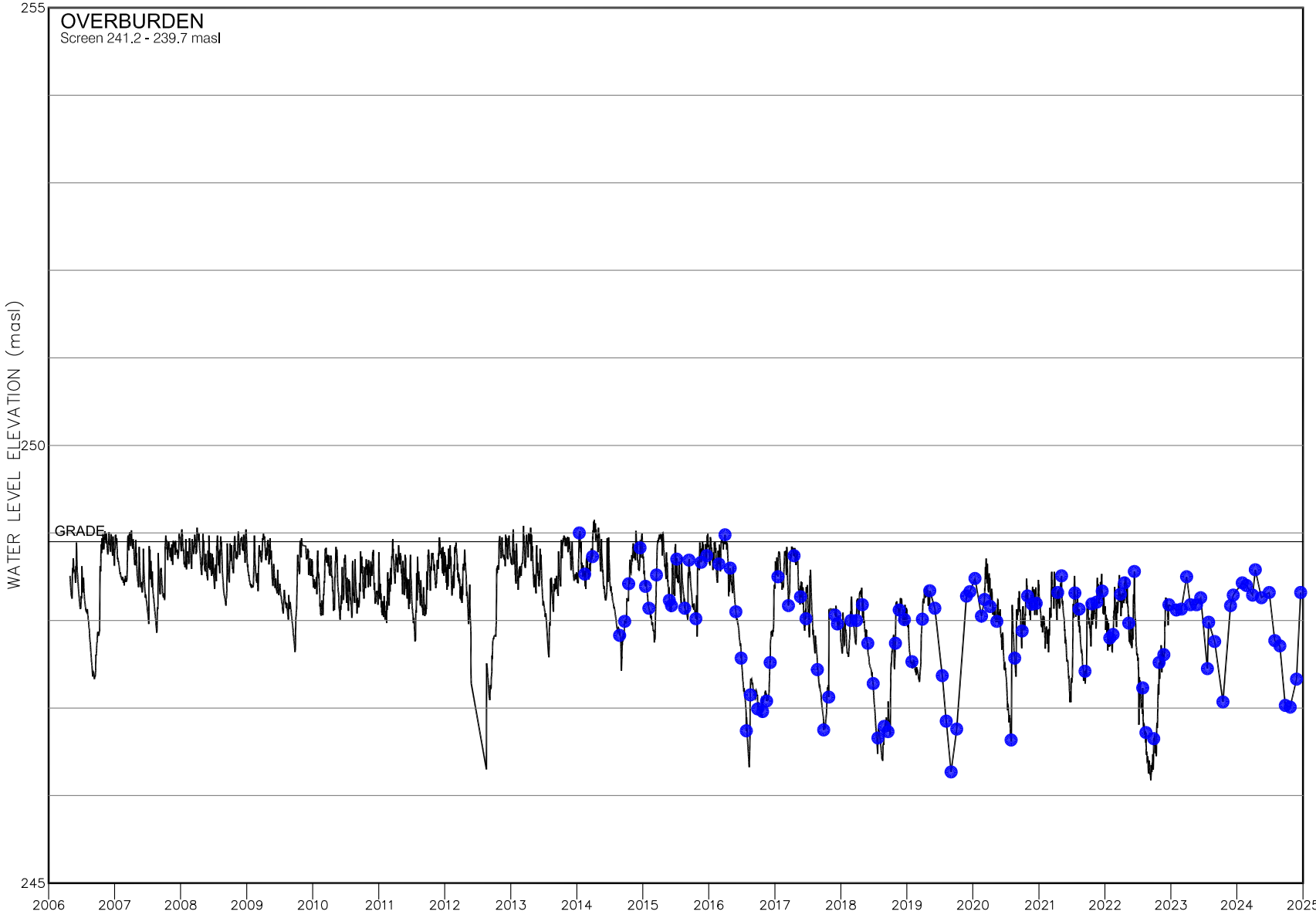
26-Aug-24	245.41
25-Sep-24	245.04
22-Oct-24	244.90
26-Nov-24	244.86
19-Dec-24	245.42

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W004

OW5#1



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Grade 248.9 masl

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27-Nov-22	247.62
28-Nov-22	247.88
29-Nov-22	247.99
30-Nov-22	247.93
01-Dec-22	248.13
02-Dec-22	248.20
03-Dec-22	248.18
04-Dec-22	248.26
05-Dec-22	248.14
06-Dec-22	248.18
07-Dec-22	248.21
08-Dec-22	248.24
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16-Dec-22	247.96
17-Dec-22	247.94
18-Dec-22	247.98
19-Dec-22	248.08
20-Dec-22	248.18
21-Dec-22	248.18
31-Jan-23	248.12
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29-Mar-23	248.50
19-Apr-23	248.18
23-May-23	248.18
15-Jun-23	248.26
22-Jul-23	247.45
29-Jul-23	247.98
31-Aug-23	247.76
16-Oct-23	247.07
27-Nov-23	248.17
12-Dec-23	248.29
31-Jan-24	248.43
23-Feb-24	248.40
28-Mar-24	248.29
12-Apr-24	248.58
16-May-24	248.26
28-Jun-24	248.32
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26-Aug-24	247.71
25-Sep-24	247.03
22-Oct-24	247.01
26-Nov-24	247.33
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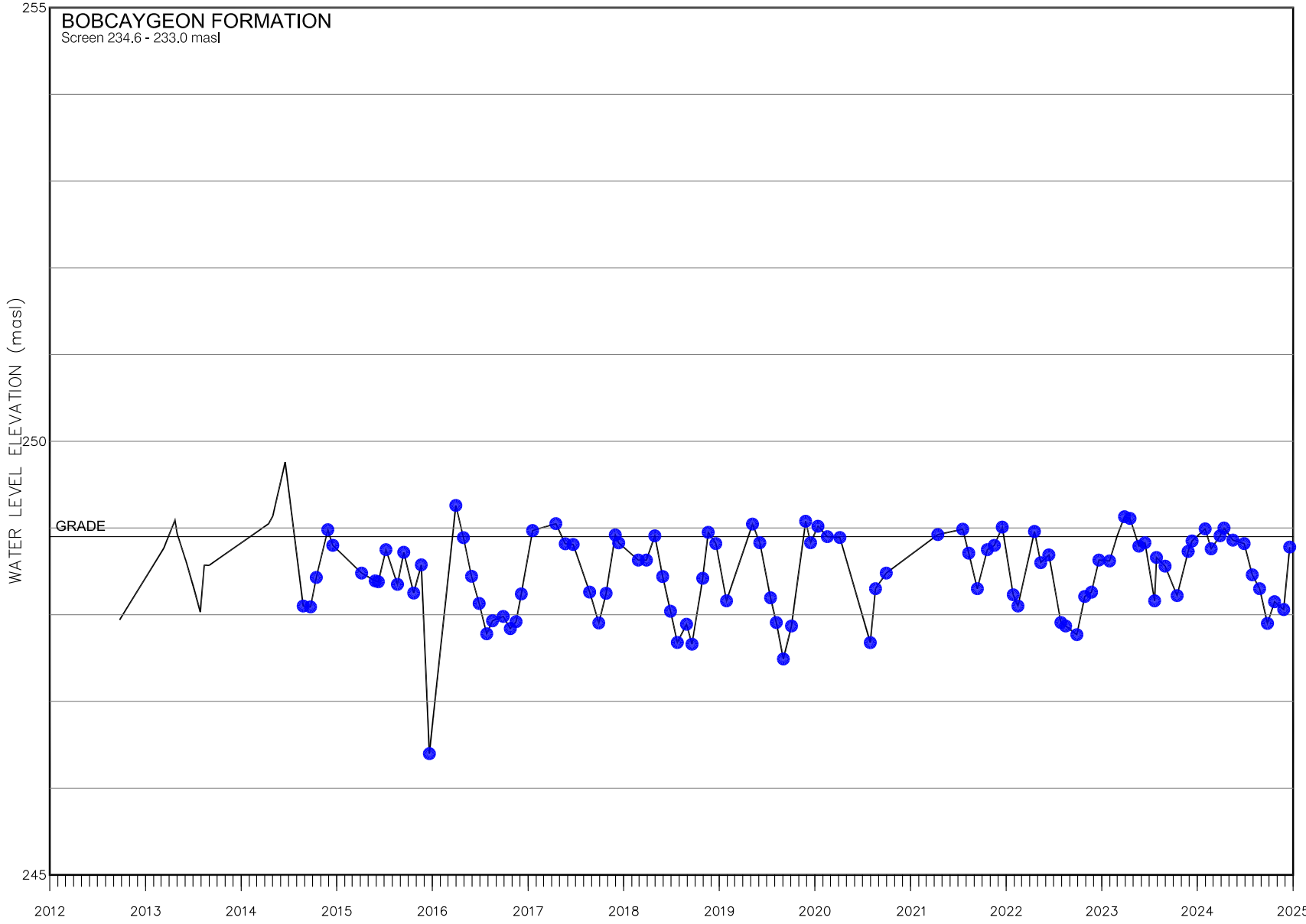
GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W005

OW5#2



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Grade 248.9 masl

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05-Jun-19	248.83
16-Jul-19	248.20
07-Aug-19	247.91
03-Sep-19	247.49
04-Oct-19	247.87
27-Nov-19	249.08
16-Dec-19	248.83
13-Jan-20	249.02
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11-Aug-21	248.71
13-Sep-21	248.30
21-Oct-21	248.75
17-Nov-21	248.80
17-Dec-21	249.01
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15-Feb-22	248.10
19-Apr-22	248.96
13-May-22	248.60
13-Jun-22	248.69
29-Jul-22	247.91
16-Aug-22	247.87
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23-May-23	248.79
15-Jun-23	248.83
22-Jul-23	248.16
29-Jul-23	248.66
31-Aug-23	248.56
16-Oct-23	248.22
27-Nov-23	248.73
12-Dec-23	248.85
31-Jan-24	248.99
23-Feb-24	248.76
28-Mar-24	248.91
12-Apr-24	249.00
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26-Aug-24	248.30
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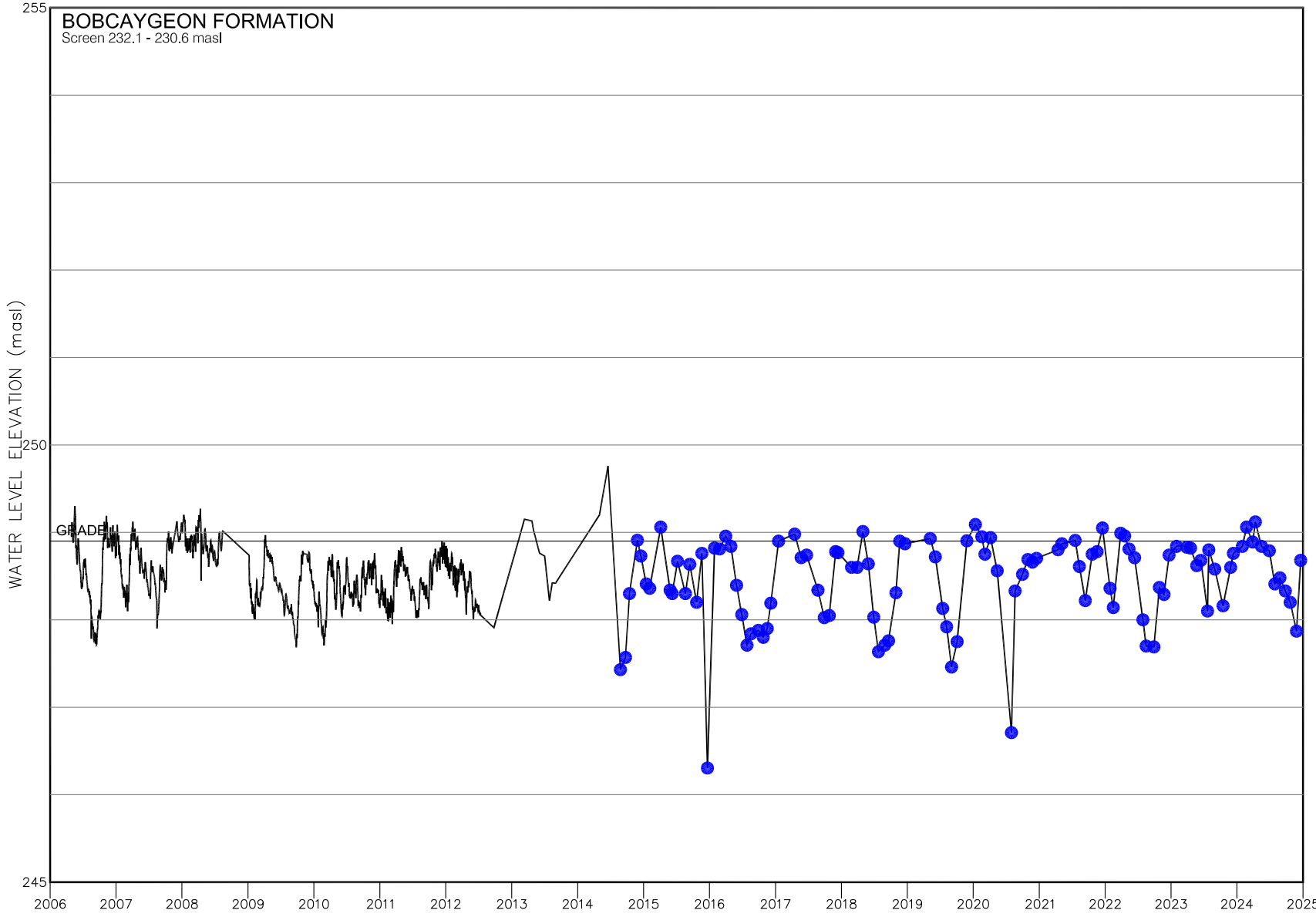
19-Dec-24	248.78

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W006

OW5#3



MP Elevation 249.70 masl
Grade 248.9 masl

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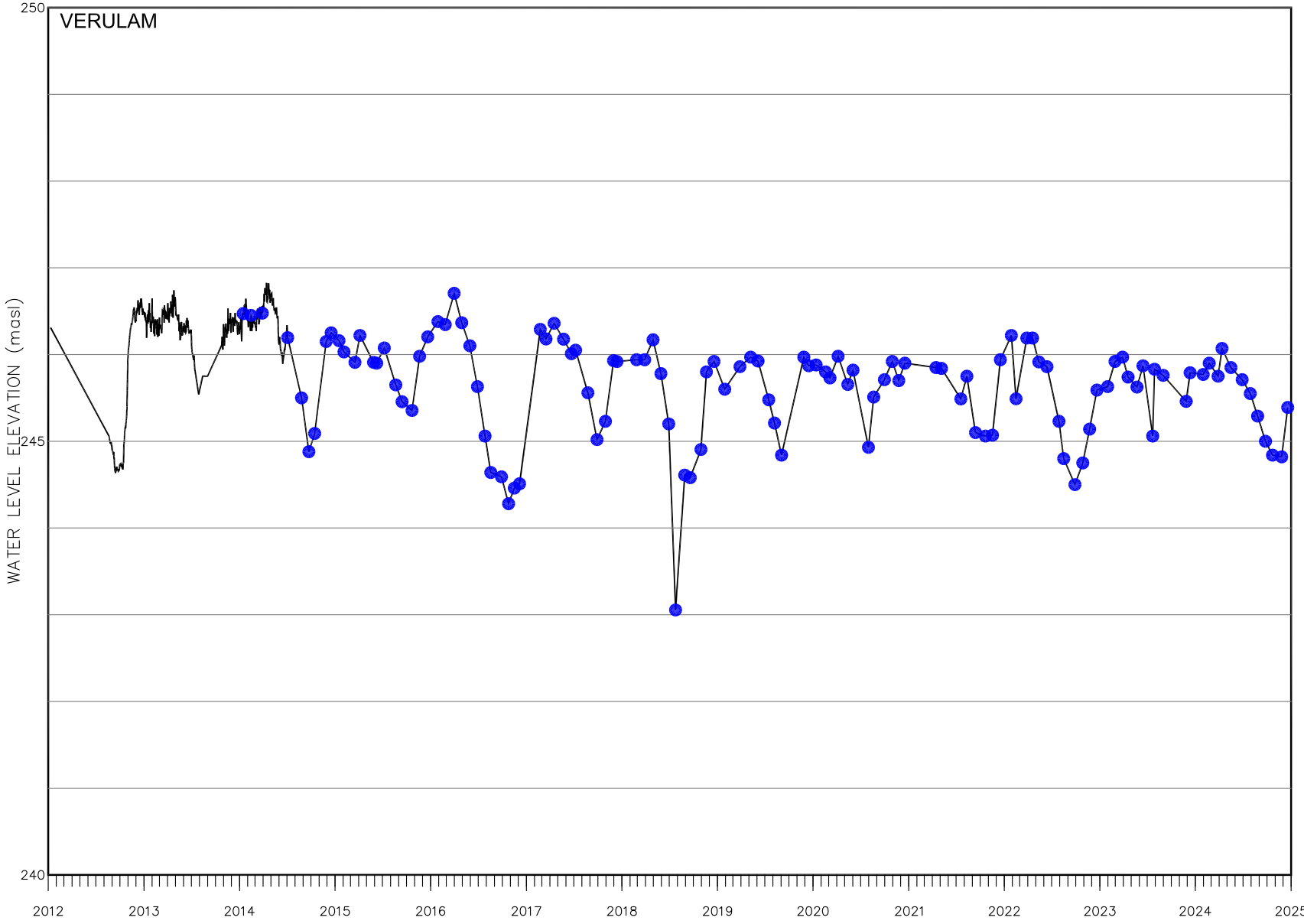
18-Feb-20	248.95
06-Mar-20	248.75
06-Apr-20	248.94
13-May-20	248.56
31-Jul-20	246.71
20-Aug-20	248.33
30-Sep-20	248.52
30-Oct-20	248.69
24-Nov-20	248.66
17-Dec-20	248.70
15-Apr-21	248.80
06-May-21	248.87
19-Jul-21	248.91
11-Aug-21	248.61
13-Sep-21	248.22
21-Oct-21	248.75
17-Nov-21	248.78
17-Dec-21	249.05
28-Jan-22	248.36
15-Feb-22	248.14
28-Mar-22	248.99
19-Apr-22	248.96
13-May-22	248.81
13-Jun-22	248.71
29-Jul-22	248.00
16-Aug-22	247.70
28-Sep-22	247.69
28-Oct-22	248.37
23-Nov-22	248.29
21-Dec-22	248.74
31-Jan-23	248.84
28-Feb-23	248.85
29-Mar-23	248.83
19-Apr-23	248.82
23-May-23	248.62
15-Jun-23	248.68
22-Jul-23	248.10
29-Jul-23	248.80
31-Aug-23	248.58
16-Oct-23	248.16
27-Nov-23	248.60
12-Dec-23	248.76
31-Jan-24	248.84
23-Feb-24	249.06
28-Mar-24	248.89
12-Apr-24	249.12
16-May-24	248.84
28-Jun-24	248.79
29-Jul-24	248.41
26-Aug-24	248.48
25-Sep-24	248.33
22-Oct-24	248.20
26-Nov-24	247.87
19-Dec-24	248.68

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W007

OW6#1

MP Elevation 247.60 masl

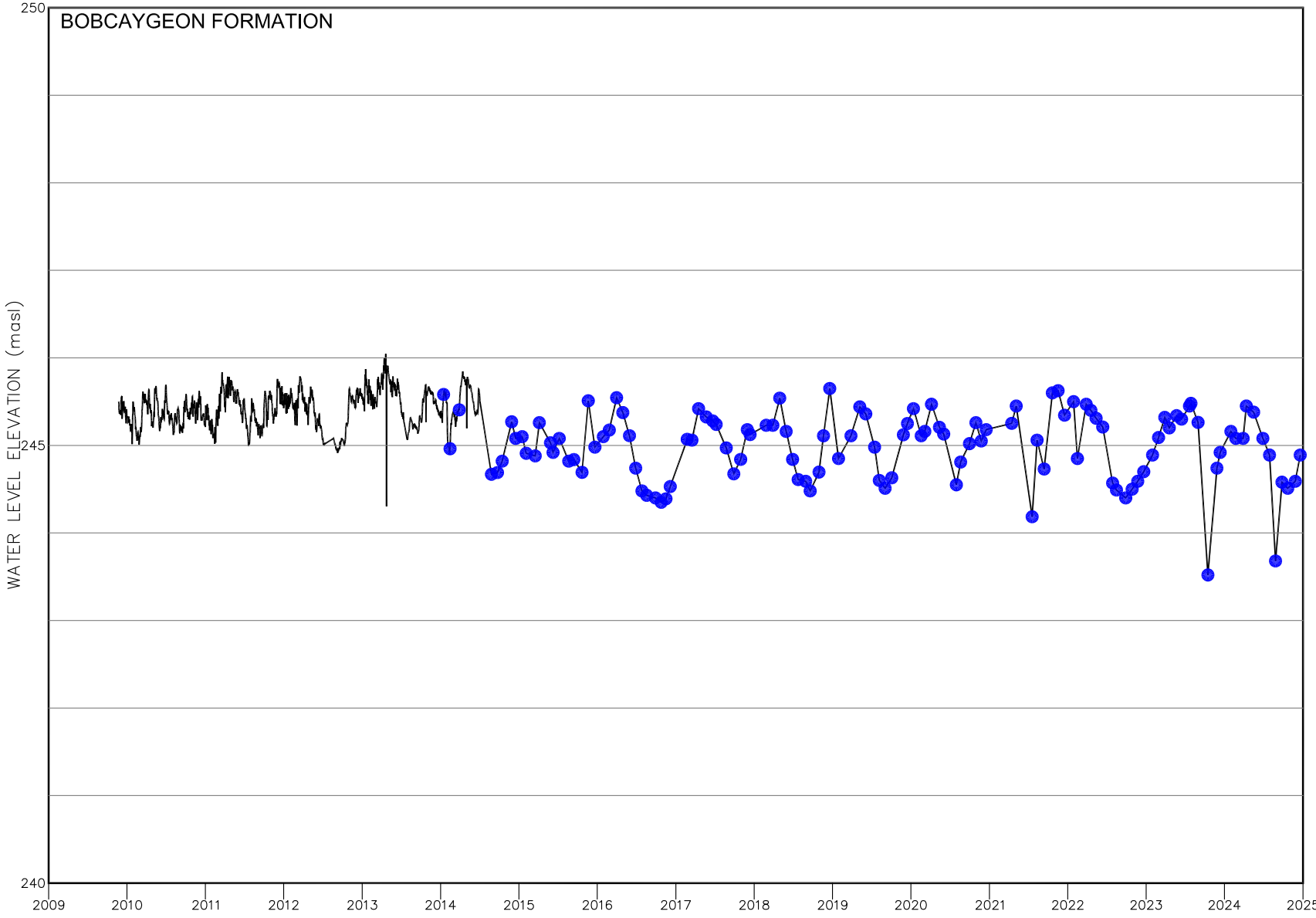


DATE	ELEVATION
07-Aug-19	245.21
03-Sep-19	244.84
27-Nov-19	245.97
16-Dec-19	245.87
13-Jan-20	245.88
18-Feb-20	245.80
06-Mar-20	245.73
06-Apr-20	245.98
13-May-20	245.65
02-Jun-20	245.82
31-Jul-20	244.93
20-Aug-20	245.51
30-Sep-20	245.71
30-Oct-20	245.92
24-Nov-20	245.70
17-Dec-20	245.90
15-Apr-21	245.85
06-May-21	245.84
19-Jul-21	245.49
11-Aug-21	245.75
13-Sep-21	245.10
21-Oct-21	245.06
17-Nov-21	245.07
17-Dec-21	245.94
28-Jan-22	246.22
15-Feb-22	245.49
28-Mar-22	246.19
19-Apr-22	246.19
13-May-22	245.91
13-Jun-22	245.86
29-Jul-22	245.23
16-Aug-22	244.80
28-Sep-22	244.50
28-Oct-22	244.75
23-Nov-22	245.14
21-Dec-22	245.59
31-Jan-23	245.63
28-Feb-23	245.92
29-Mar-23	245.97
19-Apr-23	245.74
23-May-23	245.63
15-Jun-23	245.87
22-Jul-23	245.06
29-Jul-23	245.83
31-Aug-23	245.76
27-Nov-23	245.46
12-Dec-23	245.79
31-Jan-24	245.77
23-Feb-24	245.90
28-Mar-24	245.75
12-Apr-24	246.07
16-May-24	245.85
28-Jun-24	245.71
29-Jul-24	245.55
26-Aug-24	245.29
25-Sep-24	245.00
22-Oct-24	244.84
26-Nov-24	244.82
19-Dec-24	245.39

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W008

OW6#2

MP Elevation 247.52 masl

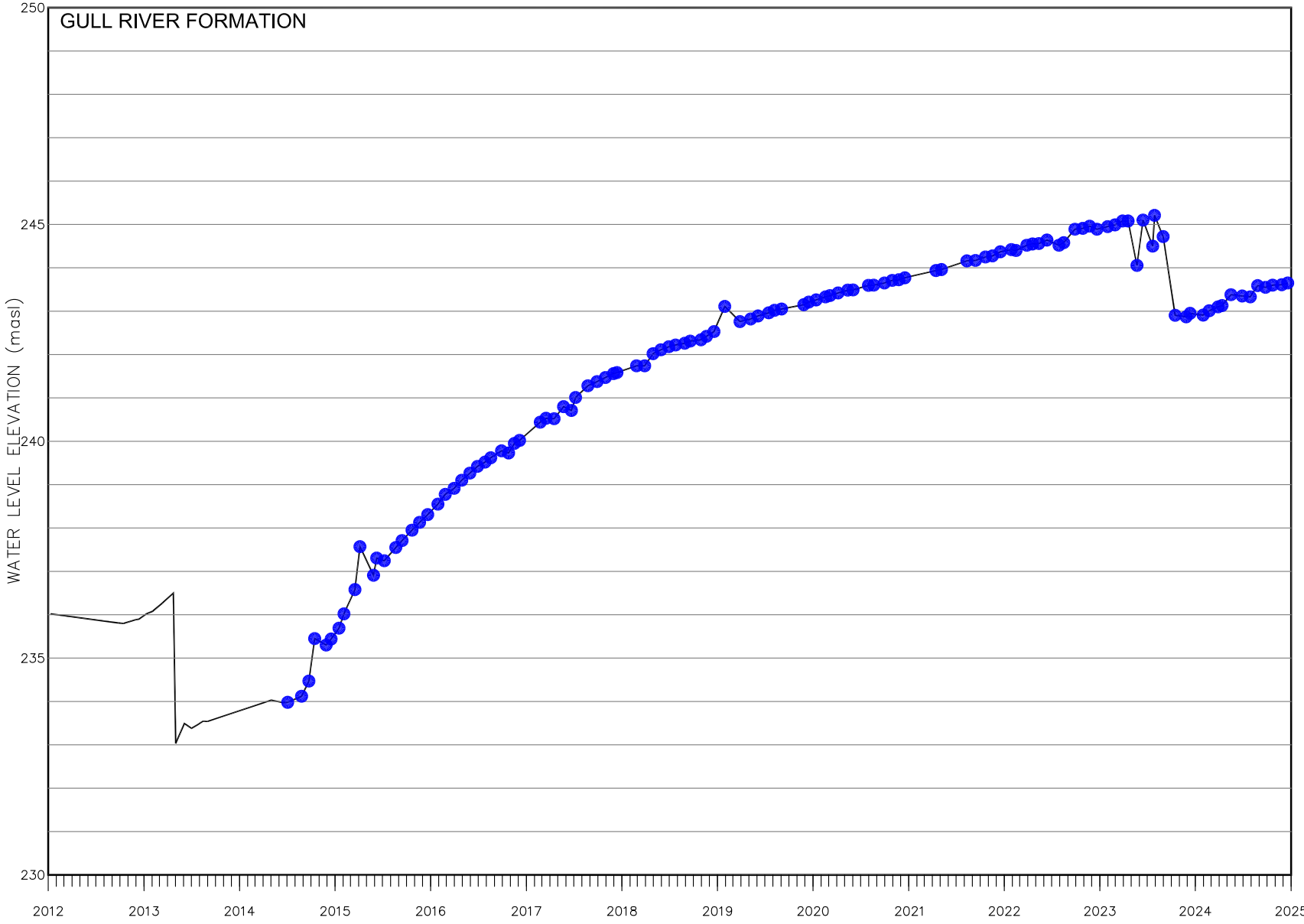


DATE	ELEVATION
04-Oct-19	244.63
27-Nov-19	245.12
16-Dec-19	245.25
13-Jan-20	245.42
18-Feb-20	245.11
06-Mar-20	245.16
06-Apr-20	245.47
13-May-20	245.21
02-Jun-20	245.13
31-Jul-20	244.55
20-Aug-20	244.81
30-Sep-20	245.02
30-Oct-20	245.26
24-Nov-20	245.05
17-Dec-20	245.18
15-Apr-21	245.25
06-May-21	245.45
19-Jul-21	244.18
11-Aug-21	245.06
13-Sep-21	244.73
21-Oct-21	245.60
17-Nov-21	245.63
17-Dec-21	245.35
28-Jan-22	245.50
15-Feb-22	244.85
28-Mar-22	245.47
19-Apr-22	245.40
13-May-22	245.31
13-Jun-22	245.21
29-Jul-22	244.57
16-Aug-22	244.49
28-Sep-22	244.40
28-Oct-22	244.50
23-Nov-22	244.59
21-Dec-22	244.70
31-Jan-23	244.89
28-Feb-23	245.09
29-Mar-23	245.32
19-Apr-23	245.20
23-May-23	245.34
15-Jun-23	245.30
22-Jul-23	245.45
29-Jul-23	245.48
31-Aug-23	245.26
16-Oct-23	243.52
27-Nov-23	244.74
12-Dec-23	244.92
31-Jan-24	245.16
23-Feb-24	245.08
28-Mar-24	245.08
12-Apr-24	245.45
16-May-24	245.38
28-Jun-24	245.08
29-Jul-24	244.89
26-Aug-24	243.68
25-Sep-24	244.58
22-Oct-24	244.51
26-Nov-24	244.59
19-Dec-24	244.89

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W009

OW6#3

MP Elevation 247.46 masl

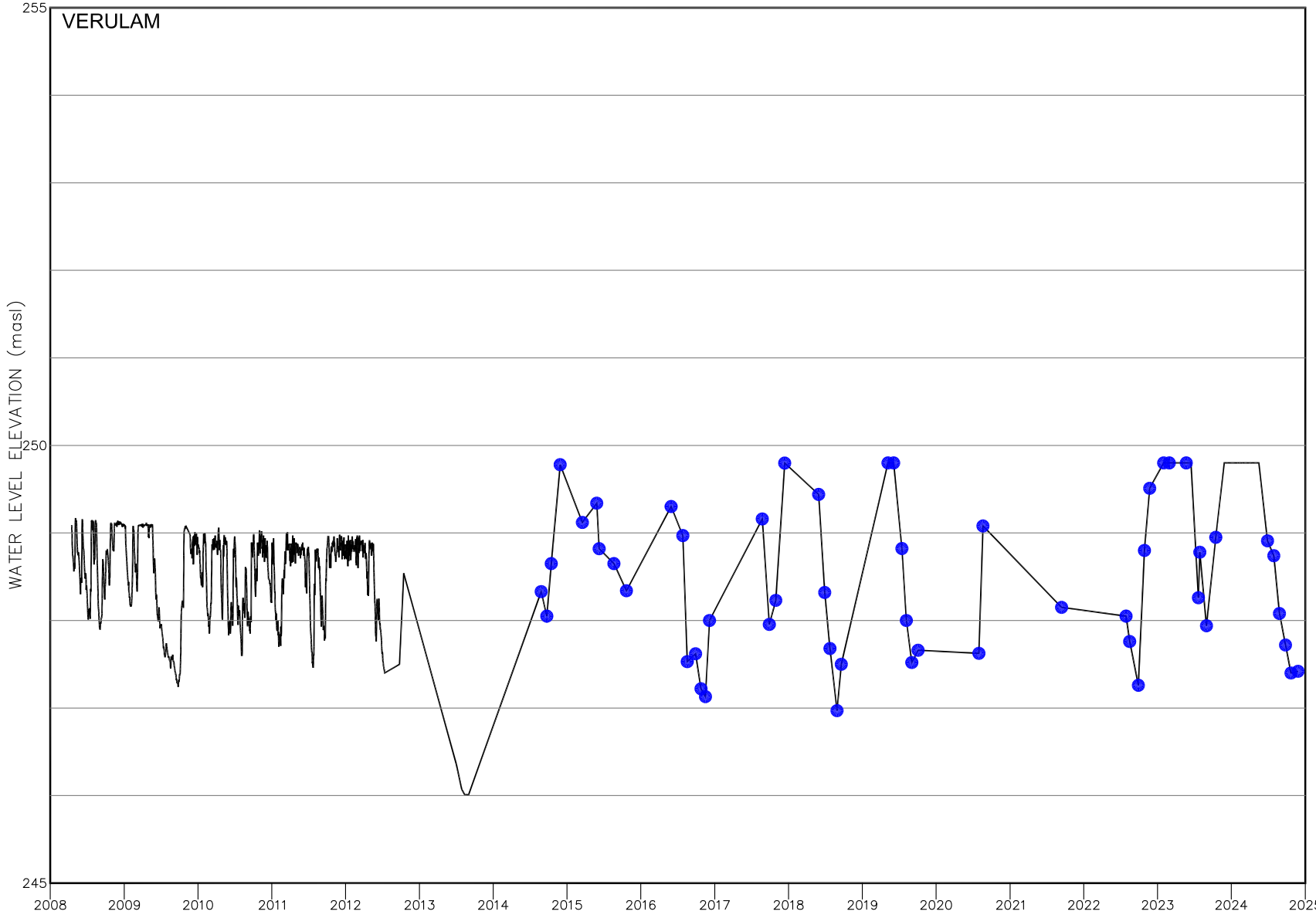


DATE	ELEVATION
07-Aug-19	243.02
03-Sep-19	243.05
27-Nov-19	243.15
16-Dec-19	243.21
13-Jan-20	243.26
18-Feb-20	243.33
06-Mar-20	243.36
06-Apr-20	243.42
13-May-20	243.49
02-Jun-20	243.49
31-Jul-20	243.60
20-Aug-20	243.60
30-Sep-20	243.65
30-Oct-20	243.71
24-Nov-20	243.73
17-Dec-20	243.77
15-Apr-21	243.94
06-May-21	243.96
11-Aug-21	244.16
13-Sep-21	244.17
21-Oct-21	244.25
17-Nov-21	244.27
17-Dec-21	244.37
28-Jan-22	244.42
15-Feb-22	244.40
28-Mar-22	244.52
19-Apr-22	244.55
13-May-22	244.56
13-Jun-22	244.64
29-Jul-22	244.52
16-Aug-22	244.58
28-Sep-22	244.89
28-Oct-22	244.91
23-Nov-22	244.96
21-Dec-22	244.89
31-Jan-23	244.95
28-Feb-23	244.99
29-Mar-23	245.08
19-Apr-23	245.08
23-May-23	244.05
15-Jun-23	245.10
22-Jul-23	244.50
29-Jul-23	245.21
31-Aug-23	244.72
16-Oct-23	242.90
27-Nov-23	242.87
12-Dec-23	242.95
31-Jan-24	242.91
23-Feb-24	243.01
28-Mar-24	243.10
12-Apr-24	243.13
16-May-24	243.38
28-Jun-24	243.35
29-Jul-24	243.33
26-Aug-24	243.59
25-Sep-24	243.55
22-Oct-24	243.60
26-Nov-24	243.61
19-Dec-24	243.65

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W010

OW7#1

MP Elevation 249.80 masl

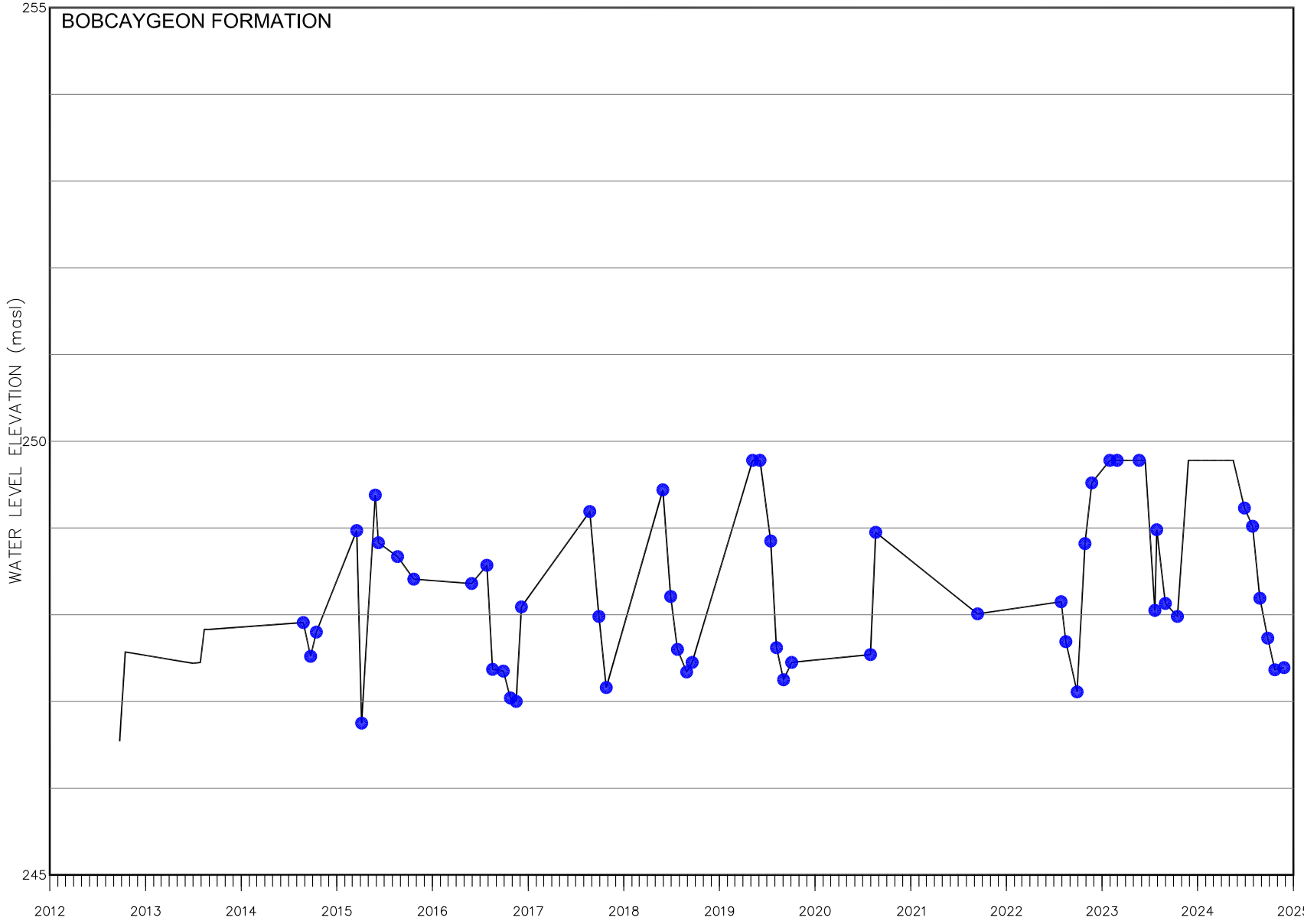


DATE	ELEVATION
05-Jun-19	249.80
16-Jul-19	248.82
07-Aug-19	248.00
03-Sep-19	247.52
04-Oct-19	247.66
27-Nov-19	FLW
16-Dec-19	FLW
13-Jan-20	FLW
06-Mar-20	FLW
06-Apr-20	FLW
13-May-20	FLW
02-Jun-20	FLW
31-Jul-20	247.63
20-Aug-20	249.08
30-Sep-20	FLW
30-Oct-20	FLW
24-Nov-20	FLW
17-Dec-20	FLW
15-Apr-21	FLW
06-May-21	FLW
19-Jul-21	FLW
11-Aug-21	FLW
13-Sep-21	248.15
21-Oct-21	FLW
17-Nov-21	FLW
17-Dec-21	FLW
28-Mar-22	FLW
19-Apr-22	FLW
13-May-22	FLW
13-Jun-22	FLW
29-Jul-22	248.05
16-Aug-22	247.76
28-Sep-22	247.26
28-Oct-22	248.80
23-Nov-22	249.51
31-Jan-23	249.80
28-Feb-23	249.80
29-Mar-23	FLW
19-Apr-23	FLW
23-May-23	249.80
15-Jun-23	249.80
22-Jul-23	248.26
29-Jul-23	248.78
31-Aug-23	247.94
16-Oct-23	248.95
27-Nov-23	249.80
12-Dec-23	249.80
31-Jan-24	249.80
23-Feb-24	249.80
28-Mar-24	249.80
12-Apr-24	249.80
16-May-24	249.80
28-Jun-24	248.91
29-Jul-24	248.74
26-Aug-24	248.08
25-Sep-24	247.72
22-Oct-24	247.40
26-Nov-24	247.42
19-Dec-24	FLW

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W011

OW7#2

MP Elevation 249.78 masl

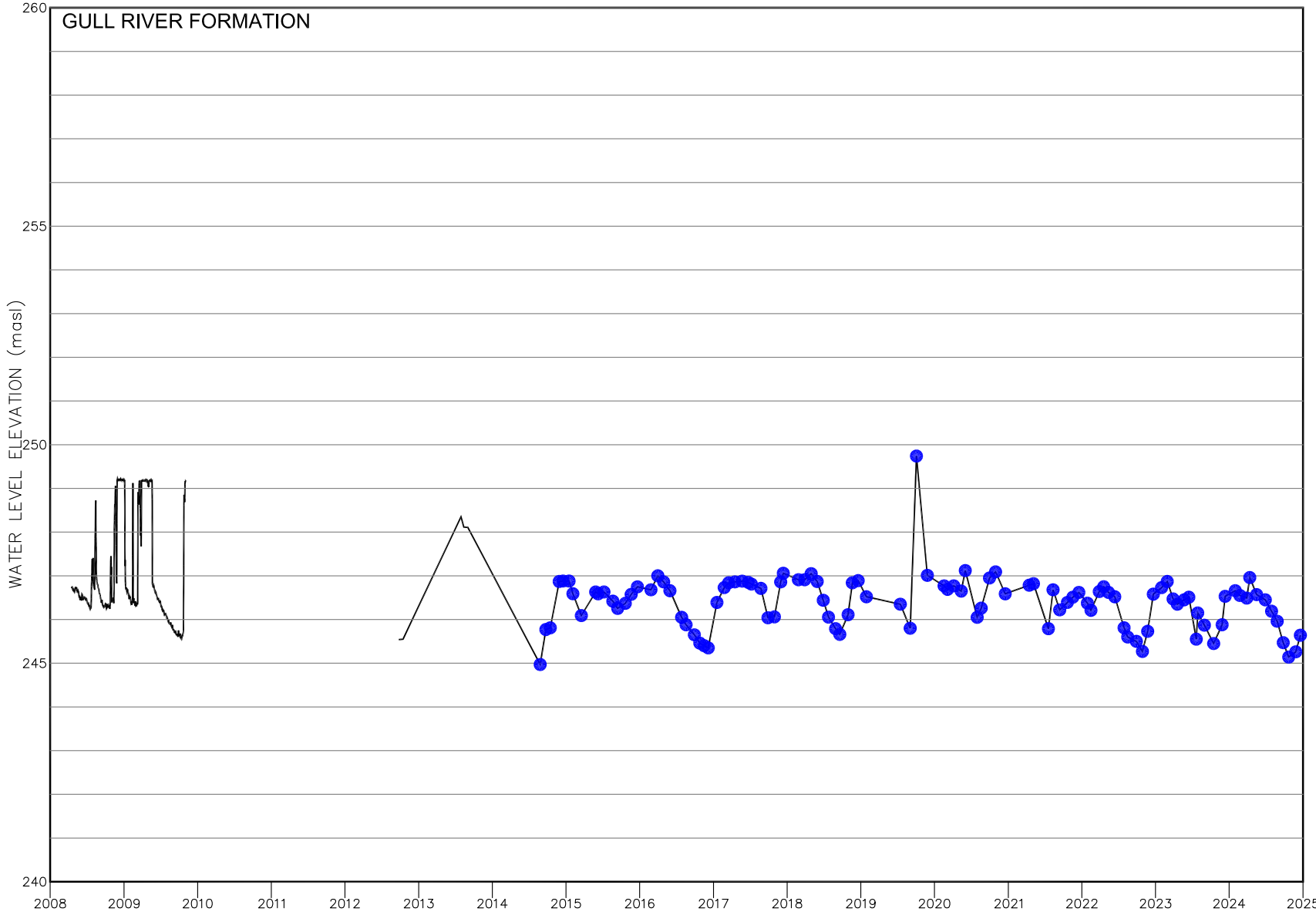


DATE	ELEVATION
05-Jun-19	249.78
16-Jul-19	248.85
07-Aug-19	247.62
03-Sep-19	247.25
04-Oct-19	247.45
27-Nov-19	FLW
16-Dec-19	FLW
13-Jan-20	FLW
06-Mar-20	FLW
06-Apr-20	FLW
13-May-20	FLW
02-Jun-20	FLW
31-Jul-20	247.54
20-Aug-20	248.95
30-Sep-20	FLW
30-Oct-20	FLW
24-Nov-20	FLW
17-Dec-20	FLW
15-Apr-21	FLW
06-May-21	FLW
19-Jul-21	FLW
11-Aug-21	FLW
13-Sep-21	248.01
21-Oct-21	FLW
17-Nov-21	FLW
17-Dec-21	FLW
28-Mar-22	FLW
19-Apr-22	FLW
13-May-22	FLW
13-Jun-22	FLW
29-Jul-22	248.15
16-Aug-22	247.69
28-Sep-22	247.11
28-Oct-22	248.82
23-Nov-22	249.52
31-Jan-23	249.78
28-Feb-23	249.78
29-Mar-23	FLW
19-Apr-23	FLW
23-May-23	249.78
15-Jun-23	249.78
22-Jul-23	248.05
29-Jul-23	248.98
31-Aug-23	248.13
16-Oct-23	247.98
27-Nov-23	249.78
12-Dec-23	249.78
31-Jan-24	249.78
23-Feb-24	249.78
28-Mar-24	249.78
12-Apr-24	249.78
16-May-24	249.78
28-Jun-24	249.23
29-Jul-24	249.02
26-Aug-24	248.19
25-Sep-24	247.73
22-Oct-24	247.37
26-Nov-24	247.39
19-Dec-24	FLW

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W012

OW7#3

MP Elevation 249.74 masl

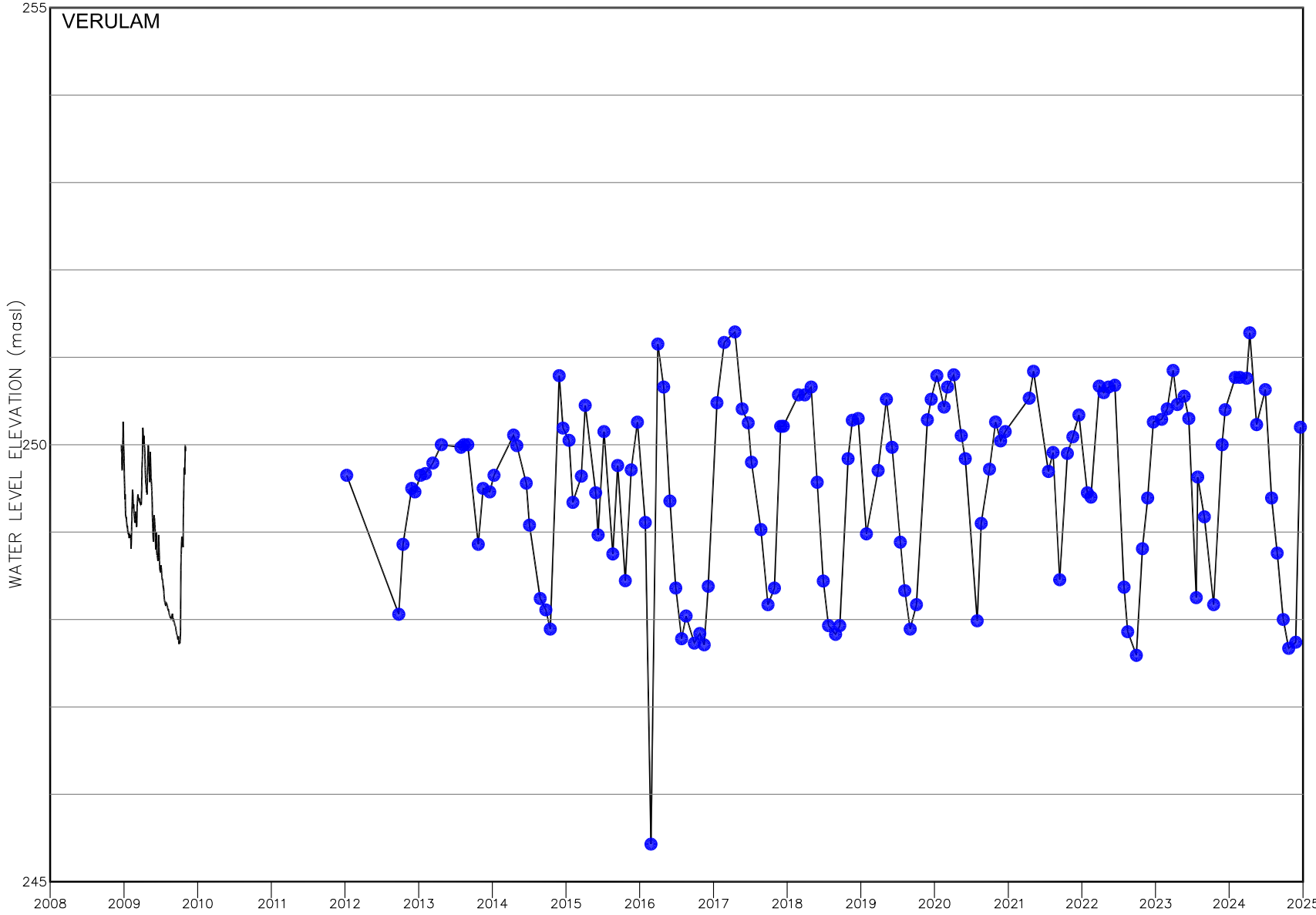


DATE	ELEVATION
29-Jan-19	246.52
16-Jul-19	246.35
03-Sep-19	245.80
04-Oct-19	249.74
27-Nov-19	247.01
18-Feb-20	246.77
06-Mar-20	246.69
06-Apr-20	246.77
13-May-20	246.65
02-Jun-20	247.12
31-Jul-20	246.05
20-Aug-20	246.26
30-Sep-20	246.95
30-Oct-20	247.09
17-Dec-20	246.59
15-Apr-21	246.79
06-May-21	246.82
19-Jul-21	245.79
11-Aug-21	246.68
13-Sep-21	246.22
21-Oct-21	246.39
17-Nov-21	246.51
17-Dec-21	246.62
28-Jan-22	246.38
15-Feb-22	246.21
28-Mar-22	246.64
19-Apr-22	246.75
13-May-22	246.62
13-Jun-22	246.52
29-Jul-22	245.81
16-Aug-22	245.60
28-Sep-22	245.50
28-Oct-22	245.27
23-Nov-22	245.73
21-Dec-22	246.58
31-Jan-23	246.73
28-Feb-23	246.87
29-Mar-23	246.47
19-Apr-23	246.35
23-May-23	246.45
15-Jun-23	246.51
22-Jul-23	245.55
29-Jul-23	246.15
31-Aug-23	245.87
16-Oct-23	245.45
27-Nov-23	245.88
12-Dec-23	246.53
31-Jan-24	246.66
23-Feb-24	246.55
28-Mar-24	246.49
12-Apr-24	246.96
16-May-24	246.57
28-Jun-24	246.45
29-Jul-24	246.19
26-Aug-24	245.96
25-Sep-24	245.47
22-Oct-24	245.14
26-Nov-24	245.26
19-Dec-24	245.64

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W013

OW8#1

MP Elevation 251.47 masl

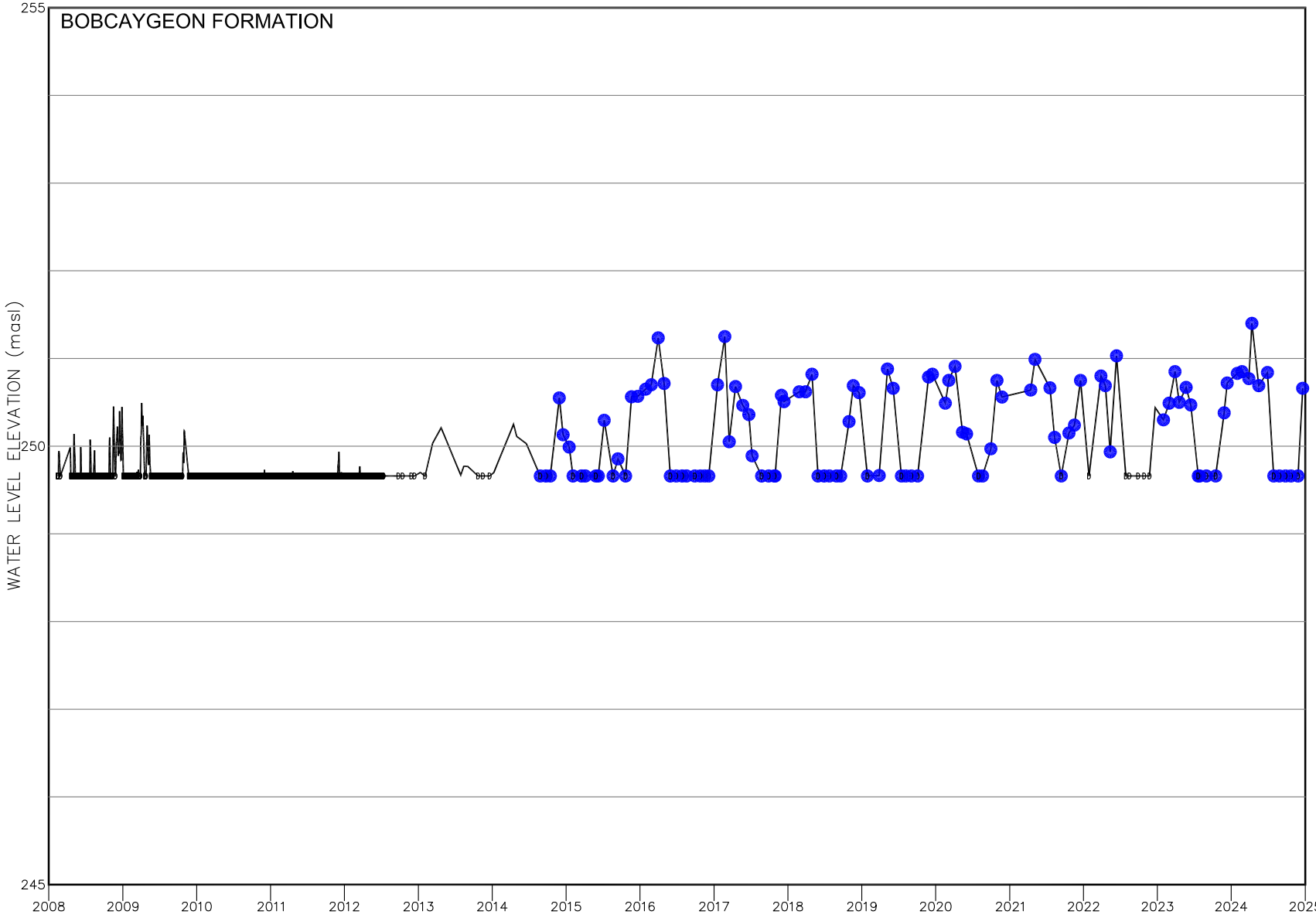


DATE	ELEVATION
04-Oct-19	248.17
27-Nov-19	250.29
16-Dec-19	250.52
13-Jan-20	250.79
18-Feb-20	250.43
06-Mar-20	250.66
06-Apr-20	250.80
13-May-20	250.10
02-Jun-20	249.84
31-Jul-20	247.99
20-Aug-20	249.10
30-Sep-20	249.72
30-Oct-20	250.26
24-Nov-20	250.04
17-Dec-20	250.15
15-Apr-21	250.53
06-May-21	250.84
19-Jul-21	249.69
11-Aug-21	249.91
13-Sep-21	248.46
21-Oct-21	249.90
17-Nov-21	250.09
17-Dec-21	250.34
28-Jan-22	249.45
15-Feb-22	249.40
28-Mar-22	250.67
19-Apr-22	250.60
13-May-22	250.66
13-Jun-22	250.68
29-Jul-22	248.37
16-Aug-22	247.86
28-Sep-22	247.59
28-Oct-22	248.81
23-Nov-22	249.39
21-Dec-22	250.26
31-Jan-23	250.29
28-Feb-23	250.41
29-Mar-23	250.85
19-Apr-23	250.46
23-May-23	250.55
15-Jun-23	250.30
22-Jul-23	248.25
29-Jul-23	249.63
31-Aug-23	249.18
16-Oct-23	248.17
27-Nov-23	250.00
12-Dec-23	250.40
31-Jan-24	250.77
23-Feb-24	250.77
28-Mar-24	250.76
12-Apr-24	251.28
16-May-24	250.23
28-Jun-24	250.63
29-Jul-24	249.39
26-Aug-24	248.76
25-Sep-24	248.00
22-Oct-24	247.67
26-Nov-24	247.74
19-Dec-24	250.20

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W014

OW8#2

MP Elevation 251.44 masl

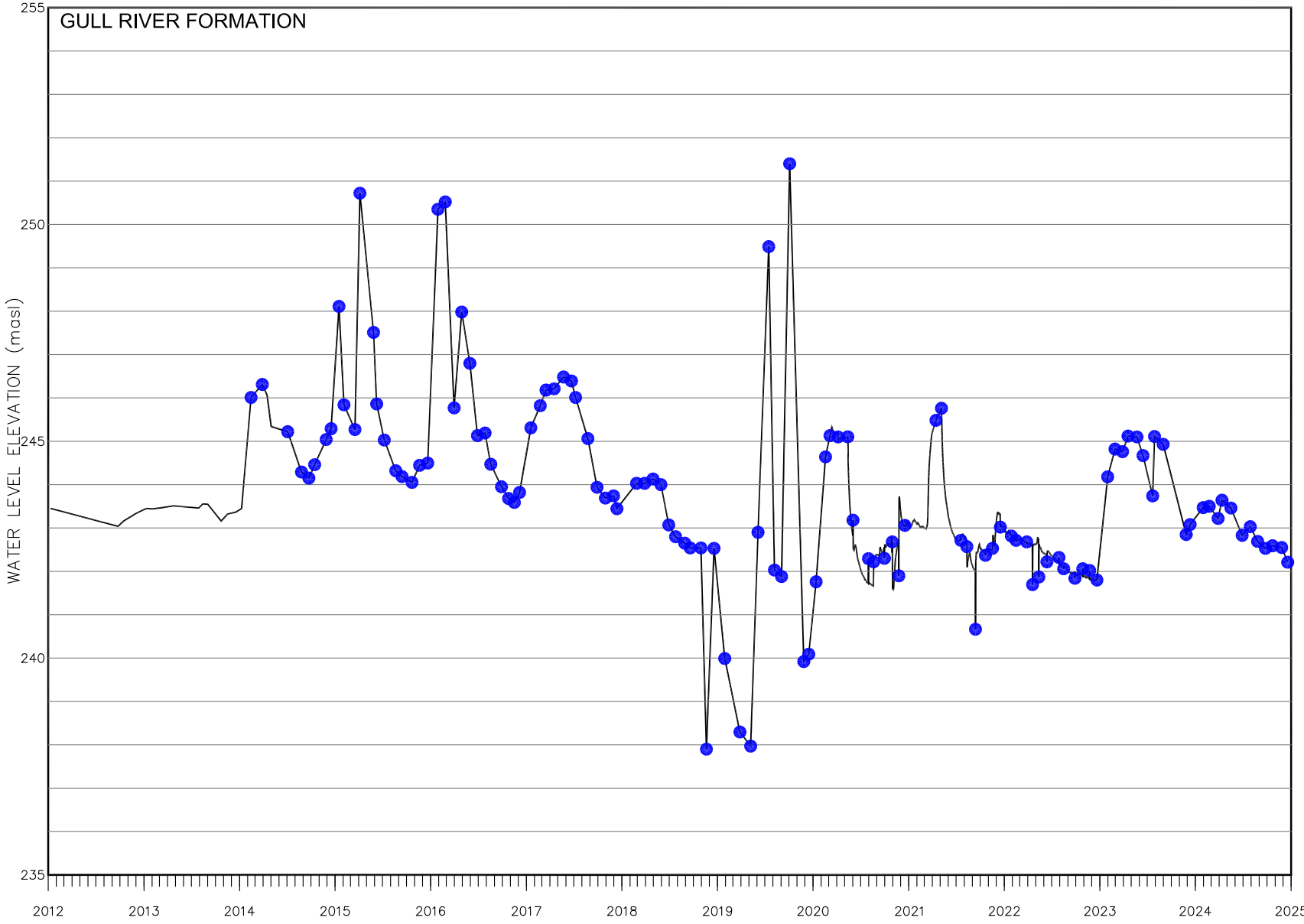


DATE	ELEVATION
16-Jul-19	DRY
07-Aug-19	DRY
03-Sep-19	DRY
04-Oct-19	DRY
27-Nov-19	250.79
16-Dec-19	250.82
18-Feb-20	250.49
06-Mar-20	250.75
06-Apr-20	250.91
13-May-20	250.16
02-Jun-20	250.14
31-Jul-20	DRY
20-Aug-20	DRY
30-Sep-20	249.97
30-Oct-20	250.75
24-Nov-20	250.56
15-Apr-21	250.64
06-May-21	250.99
19-Jul-21	250.66
11-Aug-21	250.10
13-Sep-21	DRY
21-Oct-21	250.15
17-Nov-21	250.24
17-Dec-21	250.75
28-Jan-22	DRY
28-Mar-22	250.80
19-Apr-22	250.69
13-May-22	249.93
13-Jun-22	251.03
29-Jul-22	DRY
16-Aug-22	DRY
28-Sep-22	DRY
28-Oct-22	DRY
23-Nov-22	DRY
21-Dec-22	BLCKD
31-Jan-23	250.30
28-Feb-23	250.49
29-Mar-23	250.85
19-Apr-23	250.50
23-May-23	250.67
15-Jun-23	250.47
22-Jul-23	DRY
29-Jul-23	DRY
31-Aug-23	DRY
16-Oct-23	DRY
27-Nov-23	250.38
12-Dec-23	250.72
31-Jan-24	250.83
23-Feb-24	250.85
28-Mar-24	250.77
12-Apr-24	251.40
16-May-24	250.69
28-Jun-24	250.84
29-Jul-24	DRY
26-Aug-24	DRY
25-Sep-24	DRY
22-Oct-24	DRY
26-Nov-24	DRY
19-Dec-24	250.66

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W015

OW8#3

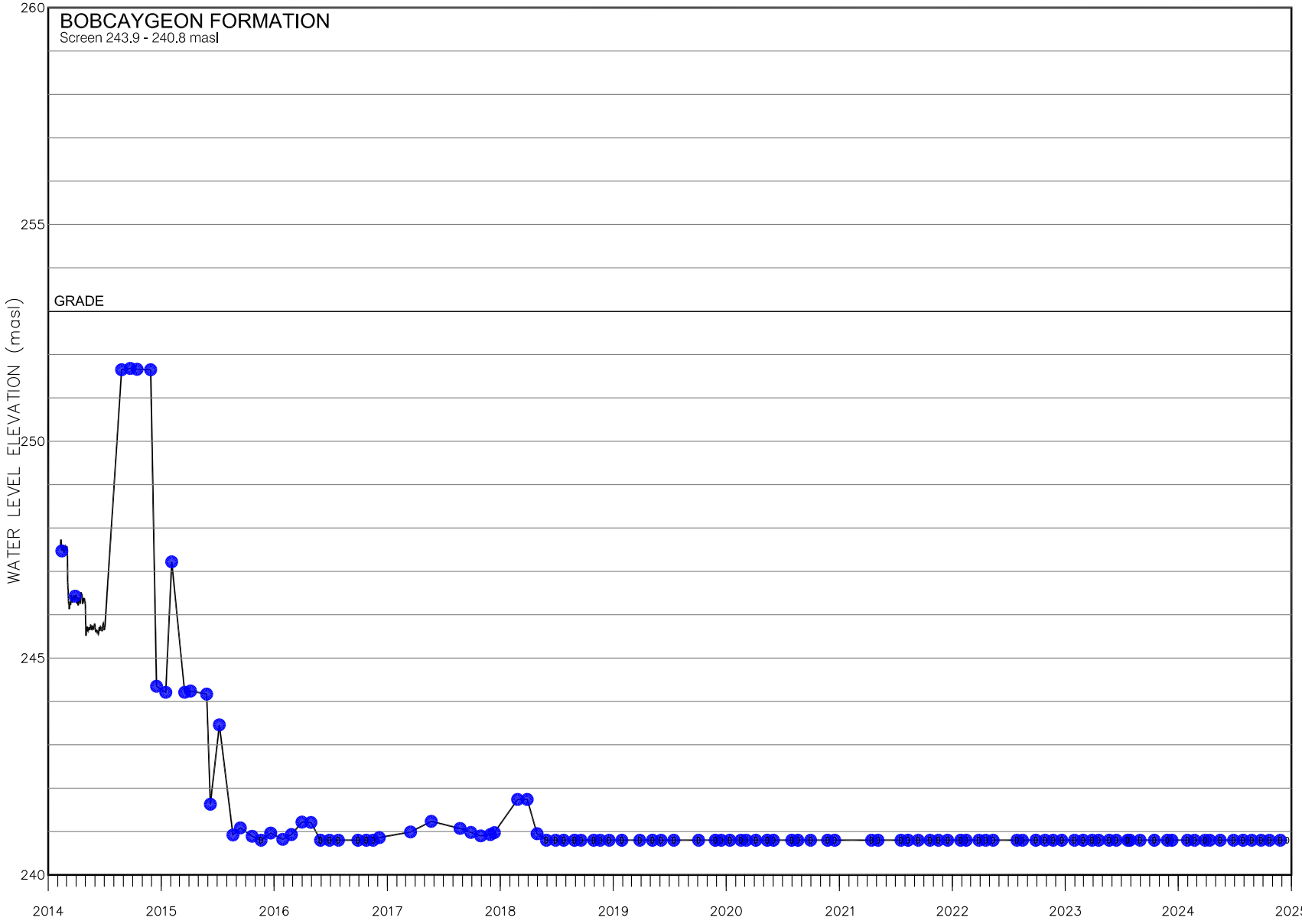
MP Elevation 251.40 masl



DATE	ELEVATION
16-Nov-22	241.85
17-Nov-22	241.85
18-Nov-22	241.84
19-Nov-22	241.84
20-Nov-22	241.84
21-Nov-22	241.83
22-Nov-22	241.83
23-Nov-22	242.02
24-Nov-22	241.81
25-Nov-22	241.80
26-Nov-22	241.81
27-Nov-22	241.82
28-Nov-22	241.83
29-Nov-22	241.83
30-Nov-22	241.82
01-Dec-22	241.81
02-Dec-22	241.82
03-Dec-22	241.81
04-Dec-22	241.81
05-Dec-22	241.82
06-Dec-22	241.82
07-Dec-22	241.80
08-Dec-22	241.80
09-Dec-22	241.79
10-Dec-22	241.79
11-Dec-22	241.79
12-Dec-22	241.79
13-Dec-22	241.78
14-Dec-22	241.78
15-Dec-22	241.80
16-Dec-22	241.81
17-Dec-22	241.82
18-Dec-22	241.83
19-Dec-22	241.82
20-Dec-22	241.81
21-Dec-22	241.80
31-Jan-23	244.18
28-Feb-23	244.82
29-Mar-23	244.76
19-Apr-23	245.12
23-May-23	245.10
15-Jun-23	244.67
22-Jul-23	243.74
29-Jul-23	245.11
31-Aug-23	244.93
27-Nov-23	242.85
12-Dec-23	243.08
31-Jan-24	243.47
23-Feb-24	243.50
28-Mar-24	243.22
12-Apr-24	243.64
16-May-24	243.46
28-Jun-24	242.83
29-Jul-24	243.03
26-Aug-24	242.69
25-Sep-24	242.53
22-Oct-24	242.59
26-Nov-24	242.55
19-Dec-24	242.21

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W016

OW9#1

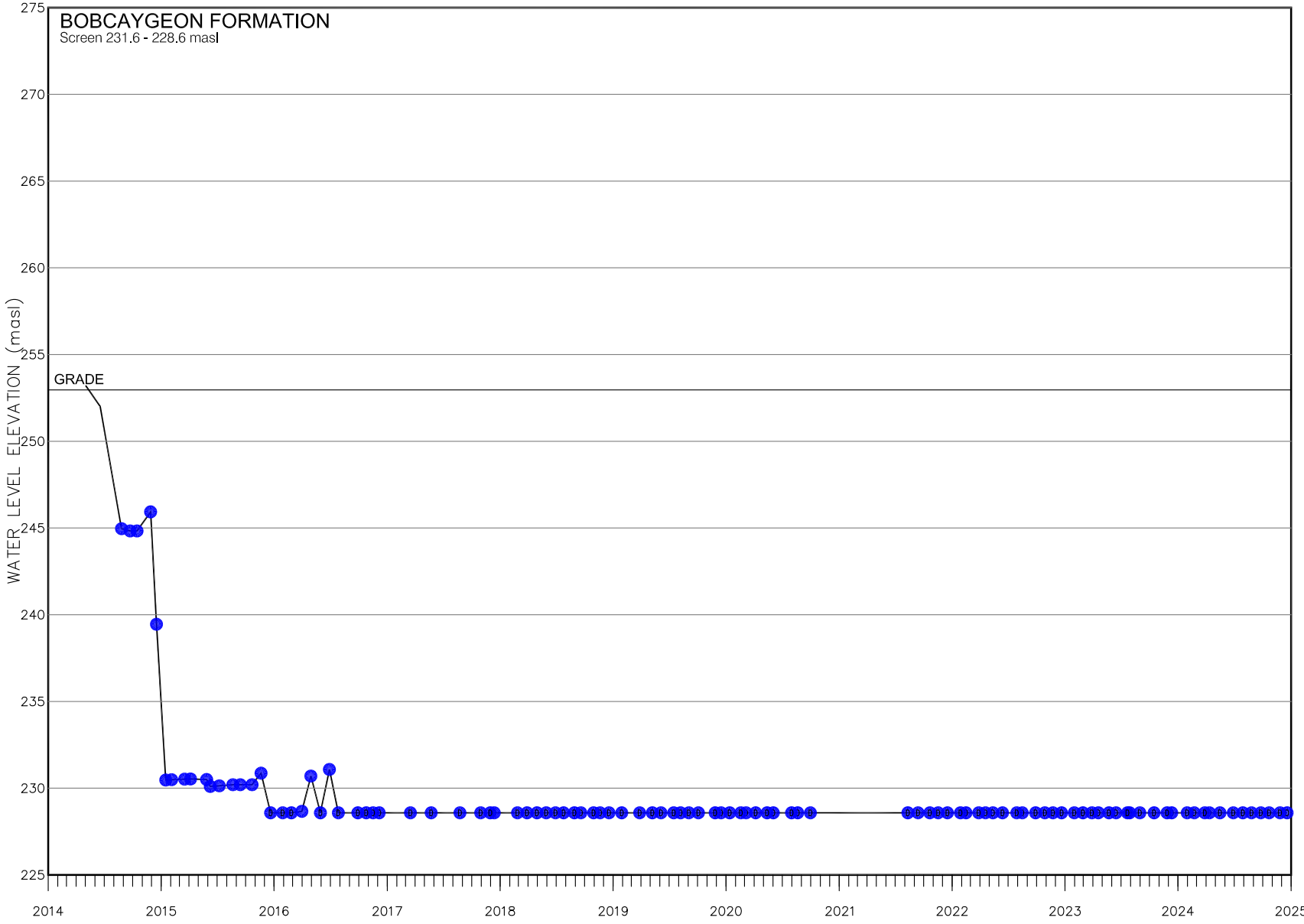


MP Elevation 253.40 masl
Grade 253.0 masl

DATE	ELEVATION
05-Jun-19	DRY
16-Jul-19	DRY
04-Oct-19	DRY
27-Nov-19	DRY
16-Dec-19	DRY
13-Jan-20	DRY
18-Feb-20	DRY
06-Mar-20	DRY
06-Apr-20	DRY
13-May-20	DRY
02-Jun-20	DRY
31-Jul-20	DRY
20-Aug-20	DRY
30-Sep-20	DRY
24-Nov-20	DRY
17-Dec-20	DRY
15-Apr-21	DRY
06-May-21	DRY
19-Jul-21	DRY
11-Aug-21	DRY
13-Sep-21	DRY
21-Oct-21	DRY
17-Nov-21	DRY
17-Dec-21	DRY
28-Jan-22	DRY
15-Feb-22	DRY
28-Mar-22	DRY
19-Apr-22	DRY
13-May-22	DRY
29-Jul-22	DRY
16-Aug-22	DRY
28-Sep-22	DRY
28-Oct-22	DRY
23-Nov-22	DRY
21-Dec-22	DRY
31-Jan-23	DRY
28-Feb-23	DRY
29-Mar-23	DRY
19-Apr-23	DRY
23-May-23	DRY
15-Jun-23	DRY
22-Jul-23	DRY
29-Jul-23	DRY
31-Aug-23	DRY
16-Oct-23	DRY
27-Nov-23	DRY
12-Dec-23	DRY
31-Jan-24	DRY
23-Feb-24	DRY
28-Mar-24	DRY
12-Apr-24	DRY
16-May-24	DRY
28-Jun-24	DRY
29-Jul-24	DRY
26-Aug-24	DRY
25-Sep-24	DRY
22-Oct-24	DRY
26-Nov-24	DRY
19-Dec-24	DRY

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W017

OW9#2

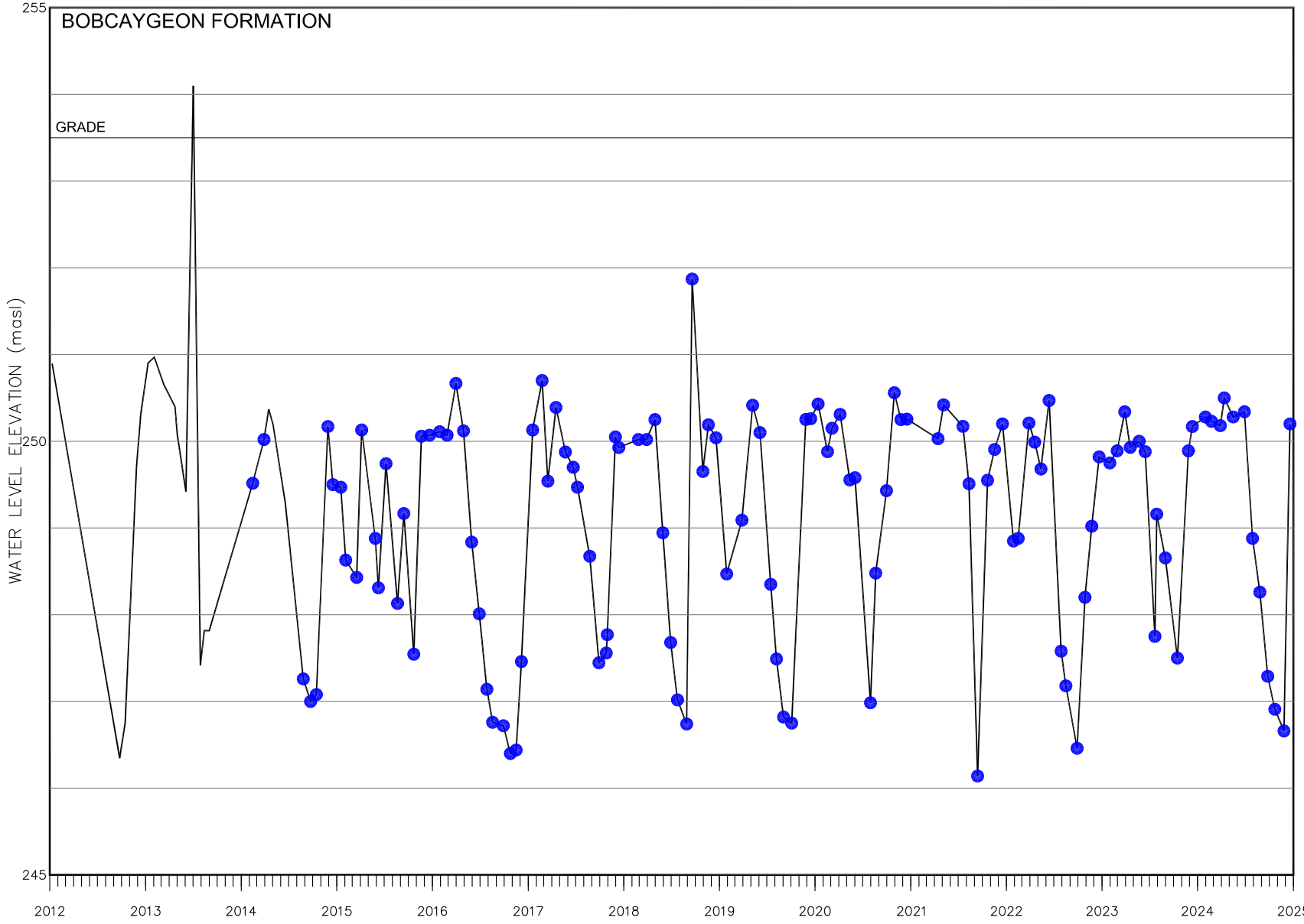


MP Elevation 253.31 masl
Grade 253.0 masl

DATE	ELEVATION
28-Mar-19	DRY
08-May-19	DRY
05-Jun-19	DRY
16-Jul-19	DRY
07-Aug-19	DRY
03-Sep-19	DRY
04-Oct-19	DRY
27-Nov-19	DRY
16-Dec-19	DRY
13-Jan-20	DRY
18-Feb-20	DRY
06-Mar-20	DRY
06-Apr-20	DRY
13-May-20	DRY
02-Jun-20	DRY
31-Jul-20	DRY
20-Aug-20	DRY
30-Sep-20	DRY
11-Aug-21	DRY
13-Sep-21	DRY
21-Oct-21	DRY
17-Nov-21	DRY
17-Dec-21	DRY
28-Jan-22	DRY
15-Feb-22	DRY
28-Mar-22	DRY
19-Apr-22	DRY
13-May-22	DRY
13-Jun-22	DRY
29-Jul-22	DRY
16-Aug-22	DRY
28-Sep-22	DRY
28-Oct-22	DRY
23-Nov-22	DRY
21-Dec-22	DRY
31-Jan-23	DRY
28-Feb-23	DRY
29-Mar-23	DRY
19-Apr-23	DRY
23-May-23	DRY
15-Jun-23	DRY
22-Jul-23	DRY
29-Jul-23	DRY
31-Aug-23	DRY
16-Oct-23	DRY
27-Nov-23	DRY
12-Dec-23	DRY
31-Jan-24	DRY
23-Feb-24	DRY
28-Mar-24	DRY
12-Apr-24	DRY
16-May-24	DRY
28-Jun-24	DRY
29-Jul-24	DRY
26-Aug-24	DRY
25-Sep-24	DRY
22-Oct-24	DRY
26-Nov-24	DRY
19-Dec-24	DRY

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W018

TW1#1

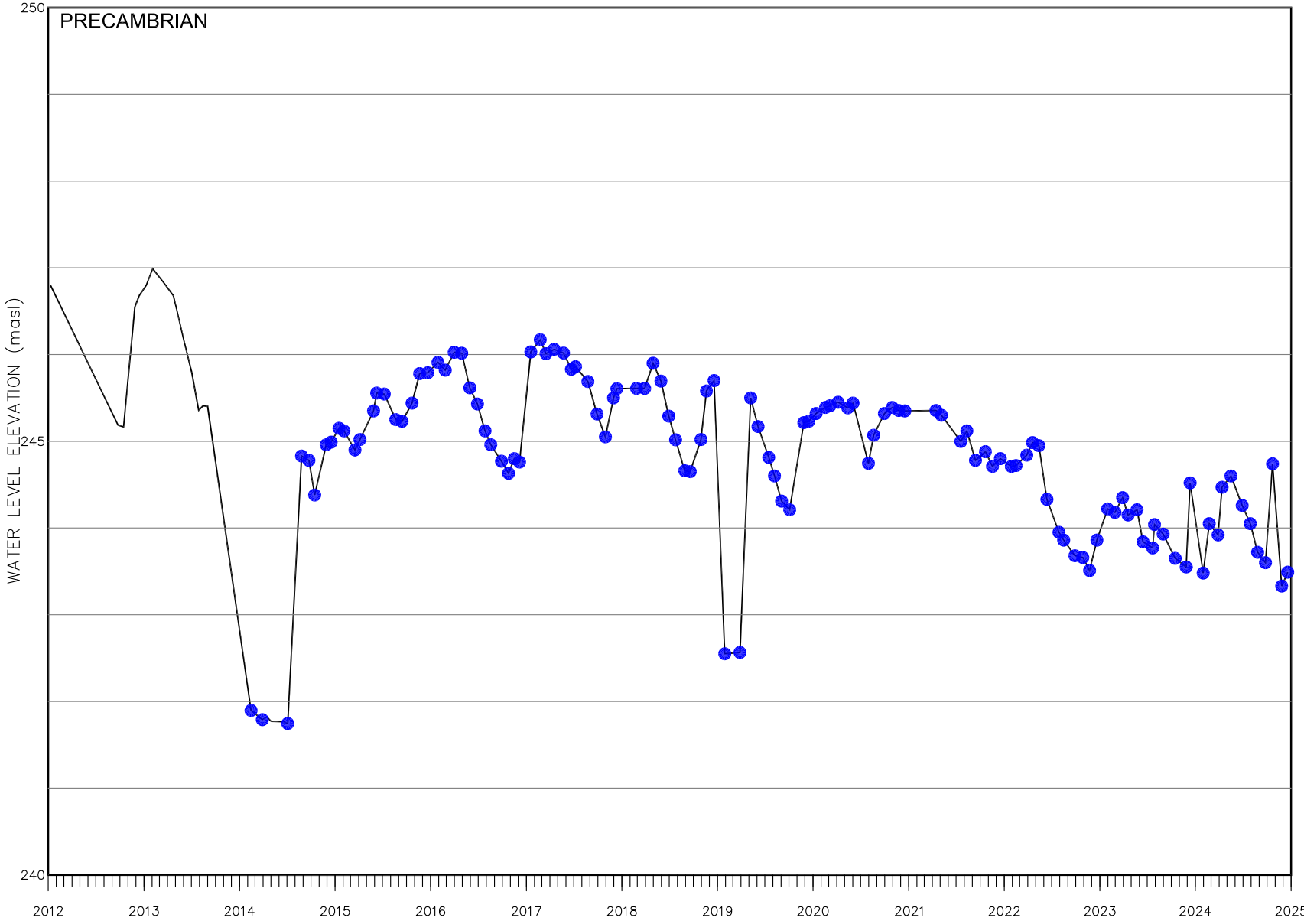


MP Elevation 254.10 masl
Grade 253.5 masl

DATE	ELEVATION
04-Oct-19	246.75
27-Nov-19	250.25
16-Dec-19	250.26
13-Jan-20	250.43
18-Feb-20	249.88
06-Mar-20	250.15
06-Apr-20	250.31
13-May-20	249.55
02-Jun-20	249.58
31-Jul-20	246.99
20-Aug-20	248.48
30-Sep-20	249.43
30-Oct-20	250.56
24-Nov-20	250.25
17-Dec-20	250.26
15-Apr-21	250.03
06-May-21	250.42
19-Jul-21	250.17
11-Aug-21	249.51
13-Sep-21	246.14
21-Oct-21	249.55
17-Nov-21	249.90
17-Dec-21	250.20
28-Jan-22	248.85
15-Feb-22	248.88
28-Mar-22	250.21
19-Apr-22	249.99
13-May-22	249.68
13-Jun-22	250.47
29-Jul-22	247.58
16-Aug-22	247.18
28-Sep-22	246.46
28-Oct-22	248.20
23-Nov-22	249.02
21-Dec-22	249.82
31-Jan-23	249.75
28-Feb-23	249.89
29-Mar-23	250.34
19-Apr-23	249.93
23-May-23	250.00
15-Jun-23	249.88
22-Jul-23	247.75
29-Jul-23	249.16
31-Aug-23	248.65
16-Oct-23	247.50
27-Nov-23	249.89
12-Dec-23	250.17
31-Jan-24	250.28
23-Feb-24	250.23
28-Mar-24	250.18
12-Apr-24	250.50
16-May-24	250.28
28-Jun-24	250.34
29-Jul-24	248.88
26-Aug-24	248.26
25-Sep-24	247.29
22-Oct-24	246.91
26-Nov-24	246.66
19-Dec-24	250.20

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W019

TW1#2

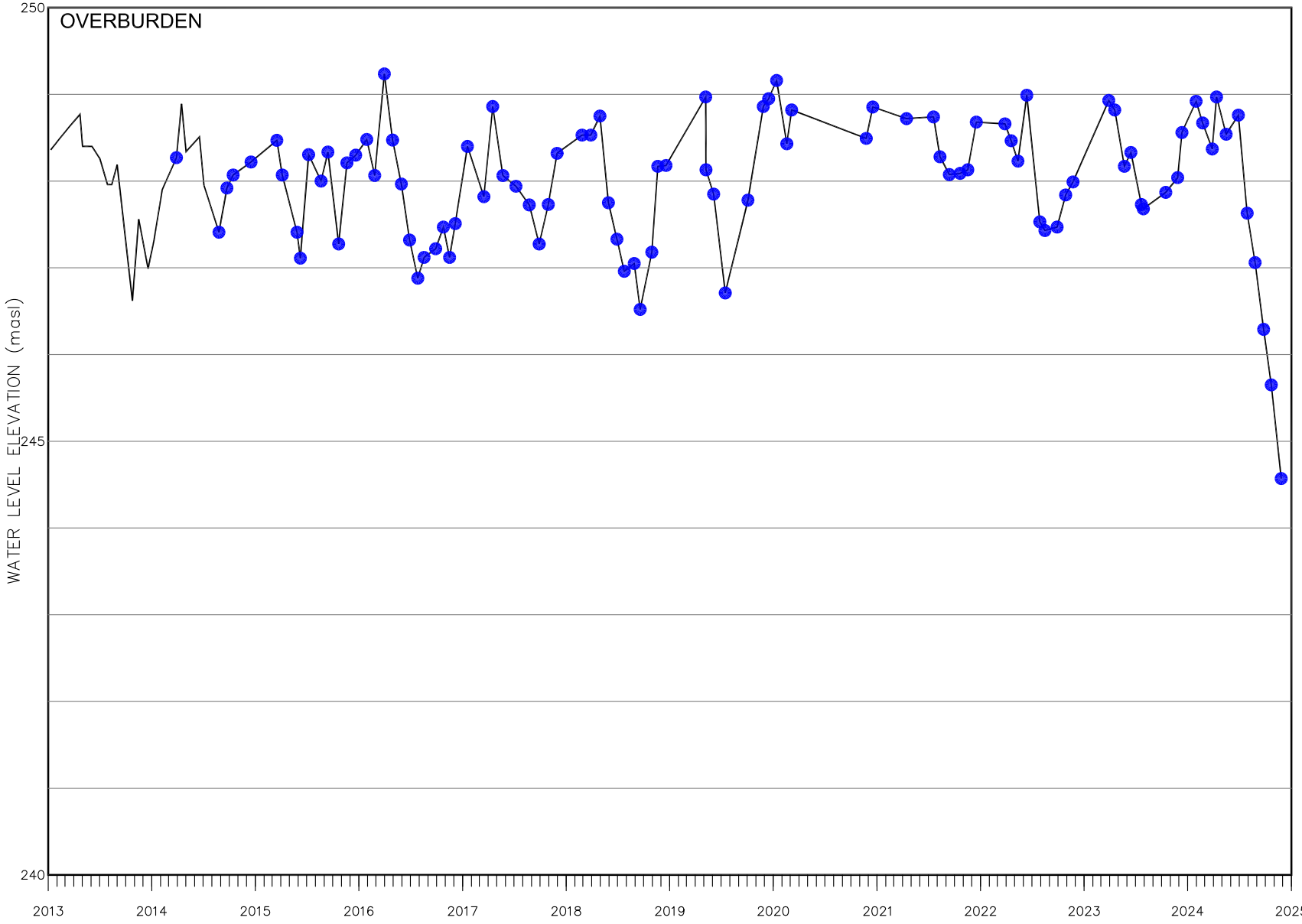


MP Elevation 254.10 masl
Grade 253.5 masl

DATE	ELEVATION
04-Oct-19	244.21
27-Nov-19	245.21
16-Dec-19	245.23
13-Jan-20	245.32
18-Feb-20	245.39
06-Mar-20	245.41
06-Apr-20	245.45
13-May-20	245.38
02-Jun-20	245.44
31-Jul-20	244.75
20-Aug-20	245.07
30-Sep-20	245.32
30-Oct-20	245.39
24-Nov-20	245.35
17-Dec-20	245.35
15-Apr-21	245.35
06-May-21	245.30
19-Jul-21	245.00
11-Aug-21	245.12
13-Sep-21	244.78
21-Oct-21	244.88
17-Nov-21	244.71
17-Dec-21	244.80
28-Jan-22	244.71
15-Feb-22	244.72
28-Mar-22	244.84
19-Apr-22	244.99
13-May-22	244.95
13-Jun-22	244.33
29-Jul-22	243.95
16-Aug-22	243.86
28-Sep-22	243.68
28-Oct-22	243.66
23-Nov-22	243.51
21-Dec-22	243.86
31-Jan-23	244.22
28-Feb-23	244.18
29-Mar-23	244.35
19-Apr-23	244.15
23-May-23	244.21
15-Jun-23	243.84
22-Jul-23	243.77
29-Jul-23	244.04
31-Aug-23	243.93
16-Oct-23	243.65
27-Nov-23	243.55
12-Dec-23	244.52
31-Jan-24	243.48
23-Feb-24	244.05
28-Mar-24	243.92
12-Apr-24	244.47
16-May-24	244.60
28-Jun-24	244.26
29-Jul-24	244.05
26-Aug-24	243.72
25-Sep-24	243.60
22-Oct-24	244.74
26-Nov-24	243.33
19-Dec-24	243.49

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W020

DW1

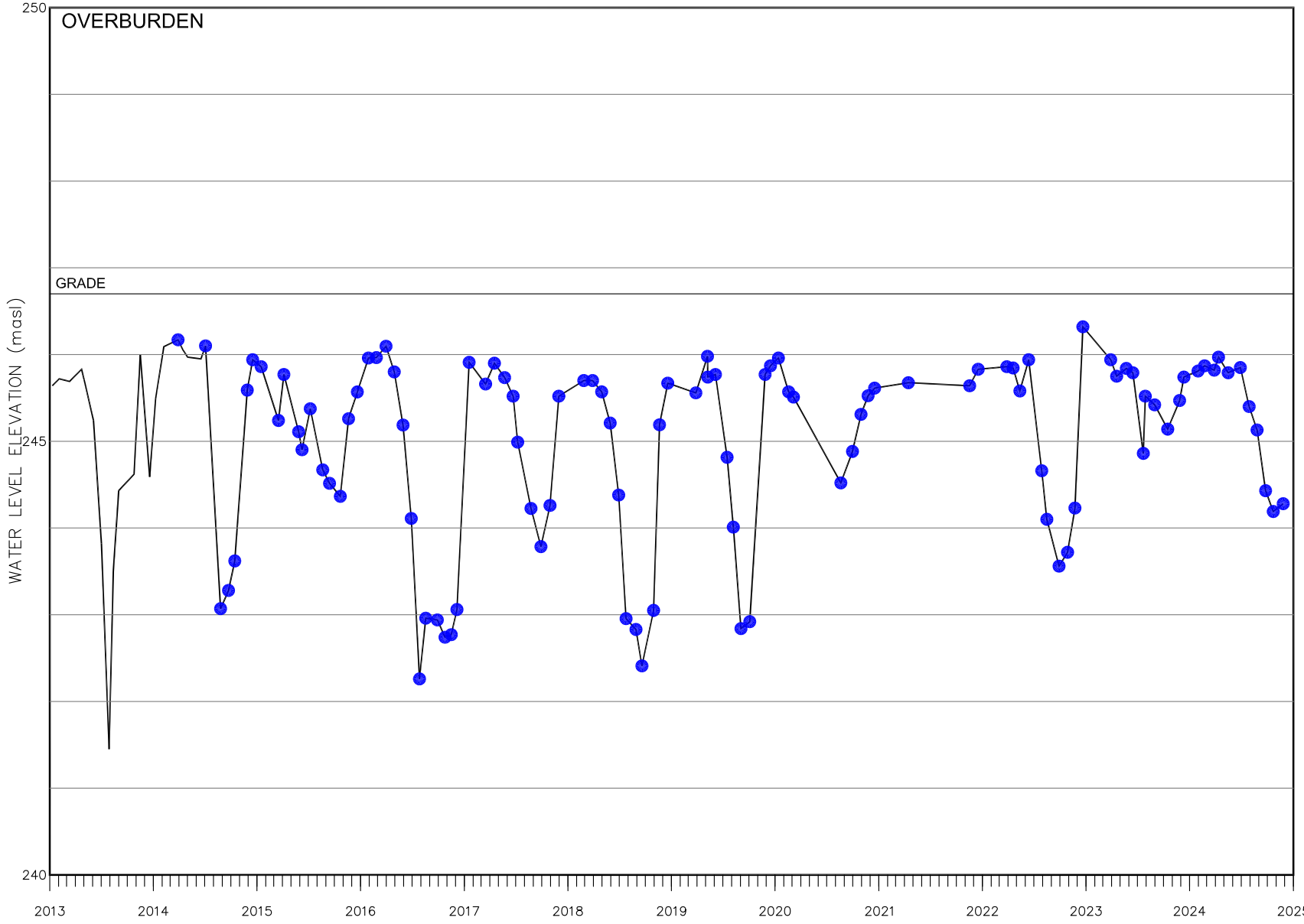


MP Elevation 249.83 masl
Grade 249.4 masl

DATE	ELEVATION
26-Feb-18	248.53
29-Mar-18	248.53
30-Apr-18	248.75
30-May-18	247.75
29-Jun-18	247.33
25-Jul-18	246.96
29-Aug-18	247.05
19-Sep-18	246.52
30-Oct-18	247.18
20-Nov-18	248.17
19-Dec-18	248.18
08-May-19	248.97
09-May-19	248.13
05-Jun-19	247.85
16-Jul-19	246.71
04-Oct-19	247.78
27-Nov-19	248.86
16-Dec-19	248.95
13-Jan-20	249.16
18-Feb-20	248.43
06-Mar-20	248.82
24-Nov-20	248.49
17-Dec-20	248.85
15-Apr-21	248.72
19-Jul-21	248.74
11-Aug-21	248.28
13-Sep-21	248.07
21-Oct-21	248.09
17-Nov-21	248.13
17-Dec-21	248.68
28-Mar-22	248.66
19-Apr-22	248.46
13-May-22	248.23
13-Jun-22	248.99
29-Jul-22	247.53
16-Aug-22	247.43
28-Sep-22	247.47
28-Oct-22	247.84
23-Nov-22	247.99
29-Mar-23	248.93
19-Apr-23	248.82
23-May-23	248.17
15-Jun-23	248.33
22-Jul-23	247.73
29-Jul-23	247.68
16-Oct-23	247.87
27-Nov-23	248.04
12-Dec-23	248.56
31-Jan-24	248.92
23-Feb-24	248.67
28-Mar-24	248.37
12-Apr-24	248.97
16-May-24	248.54
28-Jun-24	248.76
29-Jul-24	247.63
26-Aug-24	247.06
25-Sep-24	246.29
22-Oct-24	245.65
26-Nov-24	244.57

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W021

DW2

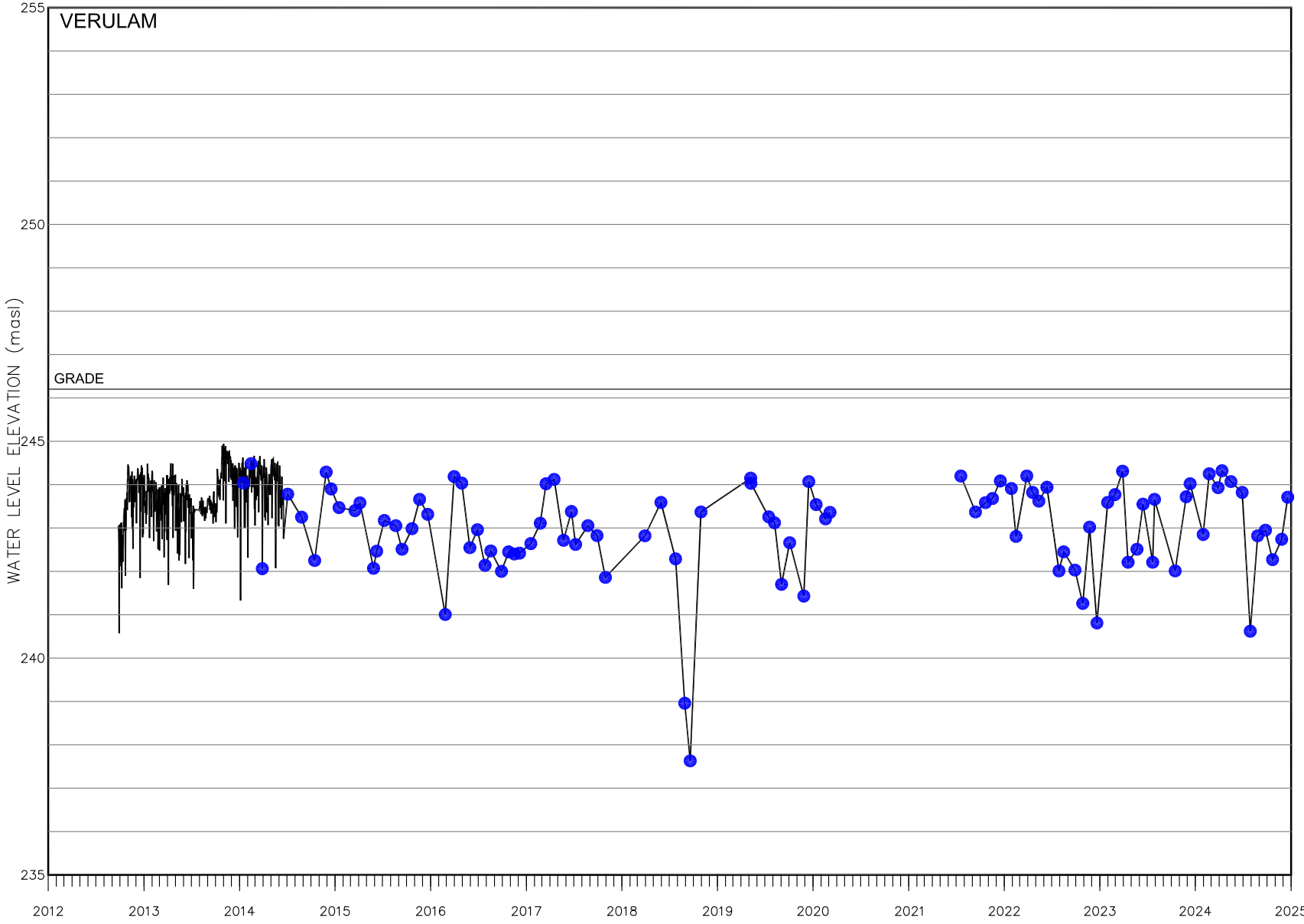


MP Elevation 247.50 masl
Grade 246.7 masl

DATE	ELEVATION
29-Jun-18	244.38
25-Jul-18	242.96
29-Aug-18	242.83
19-Sep-18	242.41
30-Oct-18	243.05
20-Nov-18	245.19
19-Dec-18	245.67
28-Mar-19	245.56
08-May-19	245.98
09-May-19	245.74
05-Jun-19	245.77
16-Jul-19	244.82
07-Aug-19	244.01
03-Sep-19	242.84
04-Oct-19	242.92
27-Nov-19	245.77
16-Dec-19	245.87
13-Jan-20	245.96
18-Feb-20	245.57
06-Mar-20	245.51
20-Aug-20	244.52
30-Sep-20	244.88
30-Oct-20	245.31
24-Nov-20	245.52
17-Dec-20	245.61
15-Apr-21	245.68
17-Nov-21	245.64
17-Dec-21	245.83
28-Mar-22	245.86
19-Apr-22	245.85
13-May-22	245.58
13-Jun-22	245.94
29-Jul-22	244.66
16-Aug-22	244.10
28-Sep-22	243.56
28-Oct-22	243.72
23-Nov-22	244.23
21-Dec-22	246.32
29-Mar-23	245.94
19-Apr-23	245.75
23-May-23	245.84
15-Jun-23	245.79
22-Jul-23	244.86
29-Jul-23	245.52
31-Aug-23	245.42
16-Oct-23	245.14
27-Nov-23	245.47
12-Dec-23	245.74
31-Jan-24	245.81
23-Feb-24	245.87
28-Mar-24	245.82
12-Apr-24	245.97
16-May-24	245.79
28-Jun-24	245.85
29-Jul-24	245.40
26-Aug-24	245.13
25-Sep-24	244.43
22-Oct-24	244.19
26-Nov-24	244.28

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W022

DW3



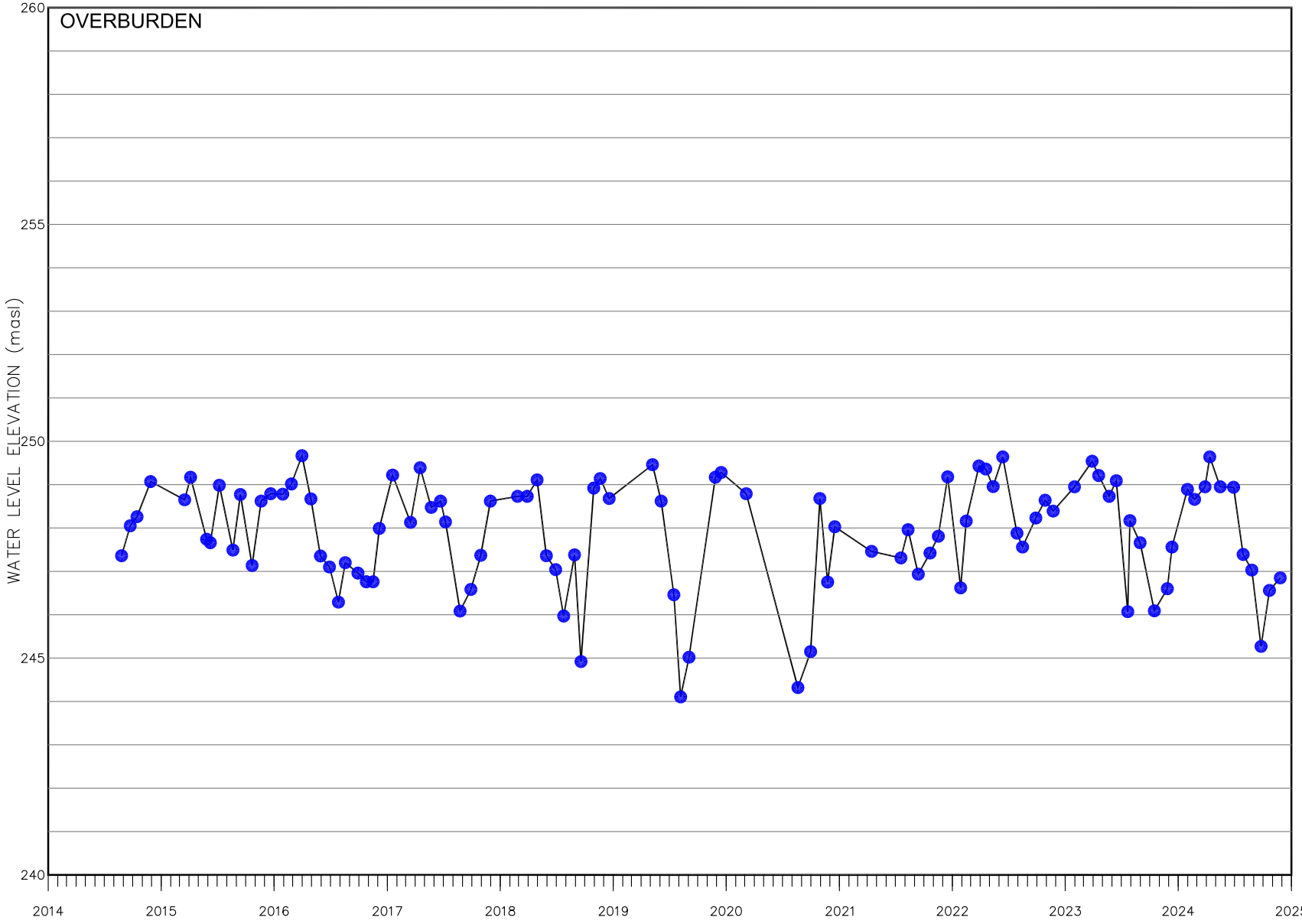
MP Elevation 246.52 masl
Grade 246.2 masl

DATE	ELEVATION
28-Sep-17	242.82
30-Oct-17	241.86
30-Mar-18	242.82
30-May-18	243.59
25-Jul-18	242.29
29-Aug-18	238.96
19-Sep-18	237.63
30-Oct-18	243.37
08-May-19	244.15
09-May-19	244.03
16-Jul-19	243.26
07-Aug-19	243.12
03-Sep-19	241.70
04-Oct-19	242.66
27-Nov-19	241.43
16-Dec-19	244.07
13-Jan-20	243.54
18-Feb-20	243.21
06-Mar-20	243.36
19-Jul-21	244.20
13-Sep-21	243.37
21-Oct-21	243.59
17-Nov-21	243.68
17-Dec-21	244.09
28-Jan-22	243.91
15-Feb-22	242.80
28-Mar-22	244.20
19-Apr-22	243.82
13-May-22	243.62
13-Jun-22	243.94
29-Jul-22	242.01
16-Aug-22	242.45
28-Sep-22	242.03
28-Oct-22	241.26
23-Nov-22	243.02
21-Dec-22	240.81
31-Jan-23	243.59
28-Feb-23	243.77
29-Mar-23	244.31
19-Apr-23	242.21
23-May-23	242.51
15-Jun-23	243.55
22-Jul-23	242.21
29-Jul-23	243.66
16-Oct-23	242.01
27-Nov-23	243.72
12-Dec-23	244.02
31-Jan-24	242.85
23-Feb-24	244.25
28-Mar-24	243.93
12-Apr-24	244.32
16-May-24	244.07
28-Jun-24	243.82
29-Jul-24	240.62
26-Aug-24	242.82
25-Sep-24	242.95
22-Oct-24	242.27
26-Nov-24	242.74
19-Dec-24	243.71

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W023

DW4

MP Elevation 250.19 masl

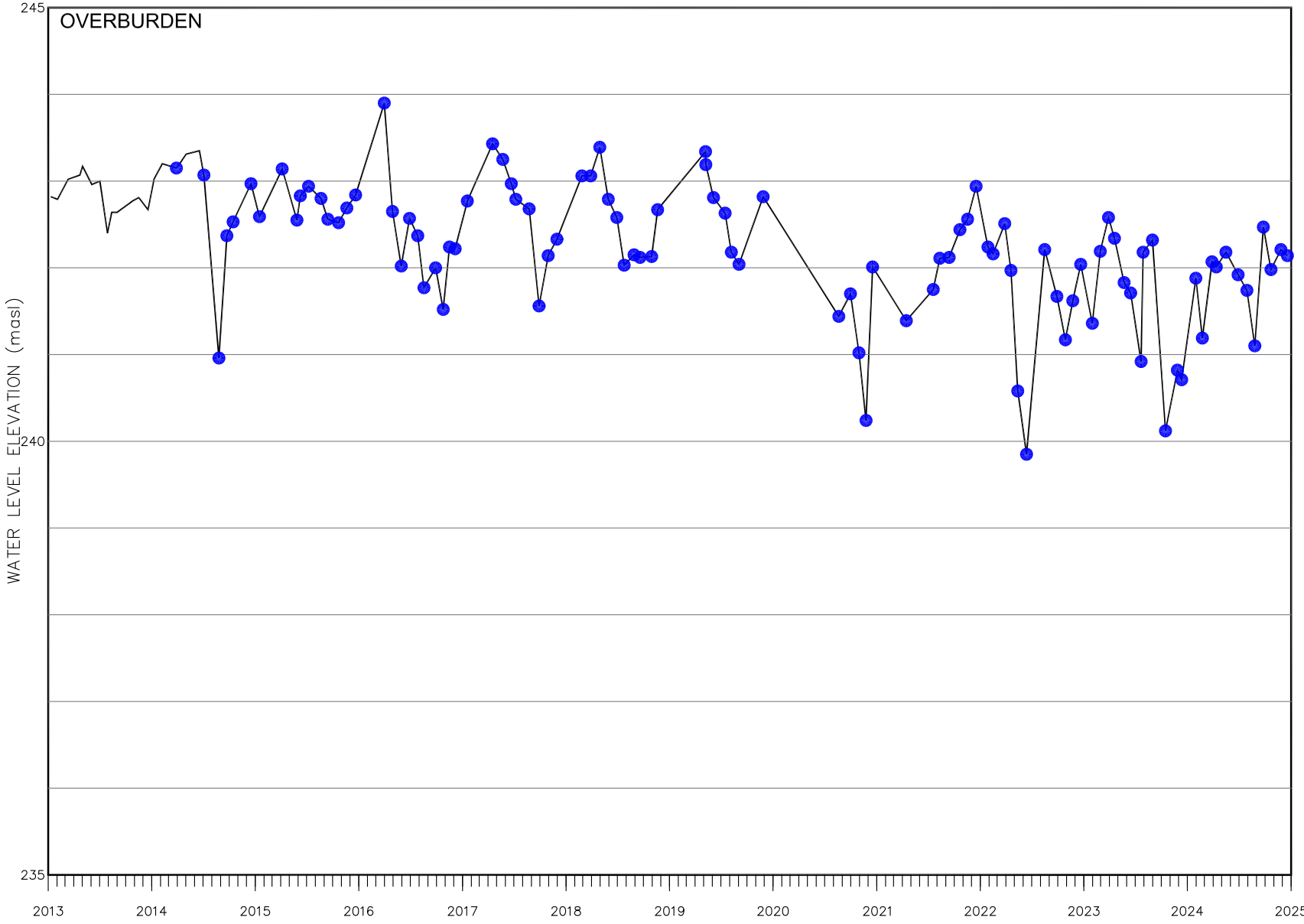


DATE	ELEVATION
25-Jul-18	245.97
29-Aug-18	247.38
19-Sep-18	244.92
30-Oct-18	248.92
20-Nov-18	249.14
19-Dec-18	248.68
08-May-19	249.46
05-Jun-19	248.62
16-Jul-19	246.46
07-Aug-19	244.10
03-Sep-19	245.02
27-Nov-19	249.17
16-Dec-19	249.28
06-Mar-20	248.79
20-Aug-20	244.32
30-Sep-20	245.15
30-Oct-20	248.68
24-Nov-20	246.75
17-Dec-20	248.03
15-Apr-21	247.46
19-Jul-21	247.31
11-Aug-21	247.96
13-Sep-21	246.93
21-Oct-21	247.42
17-Nov-21	247.81
17-Dec-21	249.18
28-Jan-22	246.62
15-Feb-22	248.16
28-Mar-22	249.43
19-Apr-22	249.36
13-May-22	248.96
13-Jun-22	249.64
29-Jul-22	247.88
16-Aug-22	247.56
28-Sep-22	248.23
28-Oct-22	248.64
23-Nov-22	248.39
31-Jan-23	248.95
29-Mar-23	249.54
19-Apr-23	249.21
23-May-23	248.73
15-Jun-23	249.09
22-Jul-23	246.07
29-Jul-23	248.17
31-Aug-23	247.66
16-Oct-23	246.09
27-Nov-23	246.60
12-Dec-23	247.56
31-Jan-24	248.89
23-Feb-24	248.66
28-Mar-24	248.95
12-Apr-24	249.64
16-May-24	248.95
28-Jun-24	248.94
29-Jul-24	247.39
26-Aug-24	247.03
25-Sep-24	245.27
22-Oct-24	246.56
26-Nov-24	246.85

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W024

DW6

MP Elevation 245.00 masl

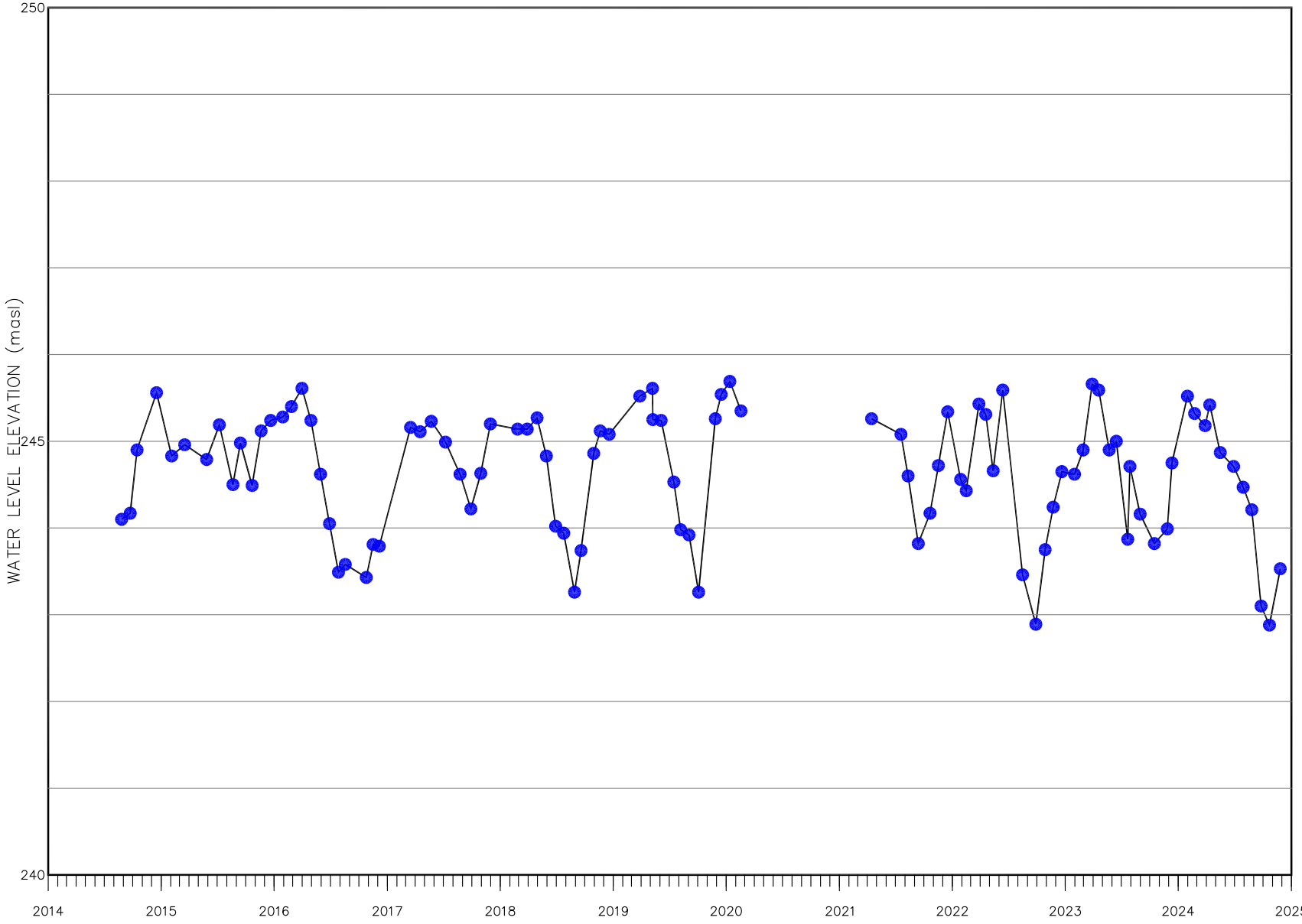


DATE	ELEVATION
25-Jul-18	242.03
29-Aug-18	242.15
19-Sep-18	242.12
30-Oct-18	242.13
20-Nov-18	242.67
08-May-19	243.34
09-May-19	243.19
05-Jun-19	242.81
16-Jul-19	242.63
07-Aug-19	242.18
03-Sep-19	242.04
27-Nov-19	242.82
20-Aug-20	241.44
30-Sep-20	241.70
30-Oct-20	241.02
24-Nov-20	240.24
17-Dec-20	242.01
15-Apr-21	241.39
19-Jul-21	241.75
11-Aug-21	242.11
13-Sep-21	242.12
21-Oct-21	242.44
17-Nov-21	242.56
17-Dec-21	242.94
28-Jan-22	242.24
15-Feb-22	242.16
28-Mar-22	242.51
19-Apr-22	241.97
13-May-22	240.58
13-Jun-22	239.85
16-Aug-22	242.21
28-Sep-22	241.67
28-Oct-22	241.17
23-Nov-22	241.62
21-Dec-22	242.04
31-Jan-23	241.36
28-Feb-23	242.19
29-Mar-23	242.58
19-Apr-23	242.34
23-May-23	241.83
15-Jun-23	241.71
22-Jul-23	240.92
29-Jul-23	242.18
31-Aug-23	242.32
16-Oct-23	240.12
27-Nov-23	240.82
12-Dec-23	240.71
31-Jan-24	241.88
23-Feb-24	241.19
28-Mar-24	242.07
12-Apr-24	242.01
16-May-24	242.18
28-Jun-24	241.92
29-Jul-24	241.74
26-Aug-24	241.10
25-Sep-24	242.47
22-Oct-24	241.98
26-Nov-24	242.21
19-Dec-24	242.14

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W025

DW7

MP Elevation 246.00 masl

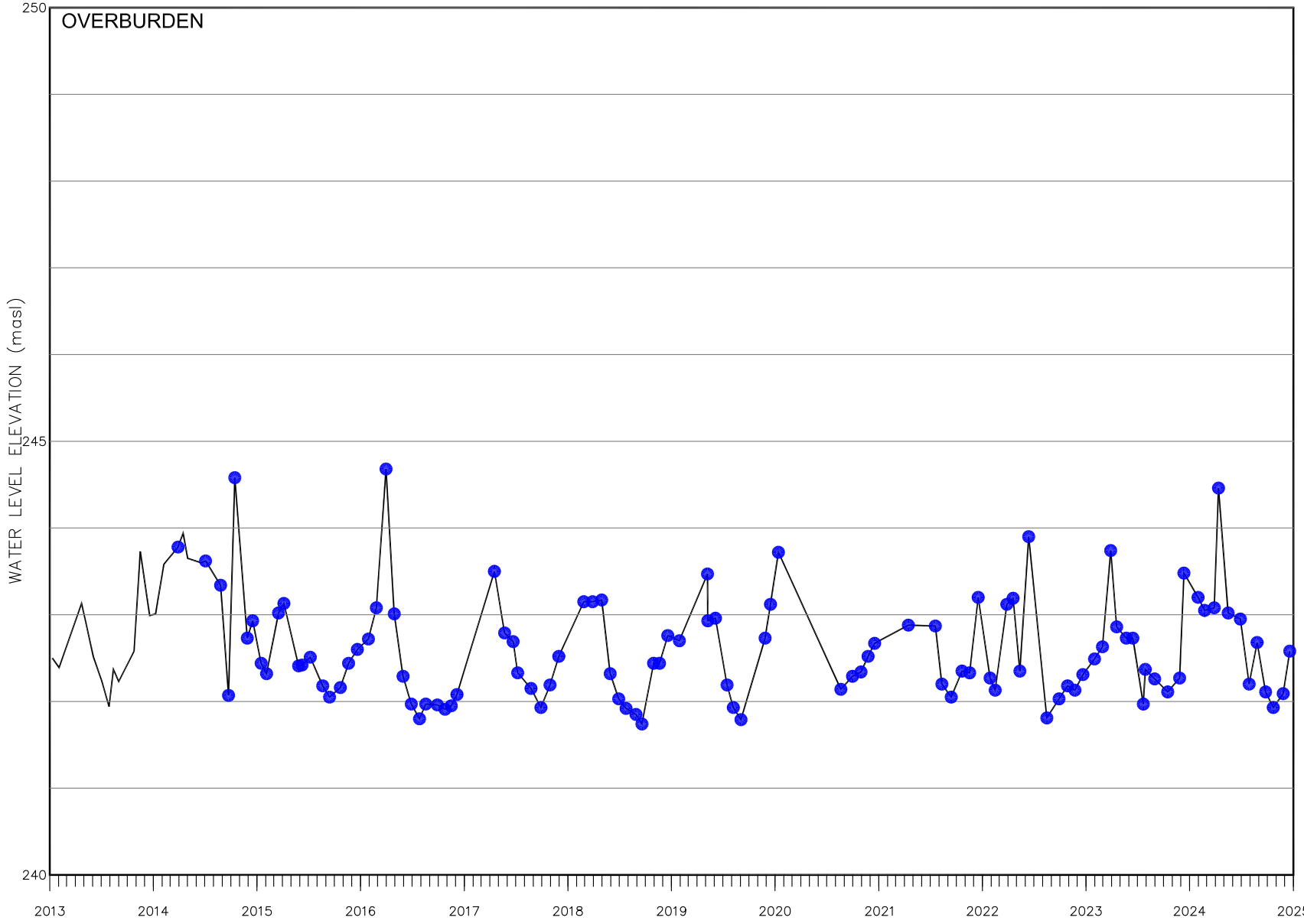


DATE	ELEVATION
25-Jul-18	243.94
29-Aug-18	243.26
19-Sep-18	243.74
30-Oct-18	244.86
20-Nov-18	245.12
19-Dec-18	245.08
28-Mar-19	245.52
08-May-19	245.61
09-May-19	245.25
05-Jun-19	245.24
16-Jul-19	244.53
07-Aug-19	243.98
03-Sep-19	243.92
04-Oct-19	243.26
27-Nov-19	245.26
16-Dec-19	245.54
13-Jan-20	245.69
18-Feb-20	245.35
15-Apr-21	245.26
19-Jul-21	245.08
11-Aug-21	244.60
13-Sep-21	243.82
21-Oct-21	244.17
17-Nov-21	244.72
17-Dec-21	245.34
28-Jan-22	244.56
15-Feb-22	244.43
28-Mar-22	245.43
19-Apr-22	245.31
13-May-22	244.66
13-Jun-22	245.59
16-Aug-22	243.46
28-Sep-22	242.89
28-Oct-22	243.75
23-Nov-22	244.24
21-Dec-22	244.65
31-Jan-23	244.62
28-Feb-23	244.90
29-Mar-23	245.66
19-Apr-23	245.59
23-May-23	244.90
15-Jun-23	245.00
22-Jul-23	243.87
29-Jul-23	244.71
31-Aug-23	244.16
16-Oct-23	243.82
27-Nov-23	243.99
12-Dec-23	244.75
31-Jan-24	245.52
23-Feb-24	245.32
28-Mar-24	245.18
12-Apr-24	245.42
16-May-24	244.87
28-Jun-24	244.71
29-Jul-24	244.47
26-Aug-24	244.21
25-Sep-24	243.10
22-Oct-24	242.88
26-Nov-24	243.53

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W026

DW8

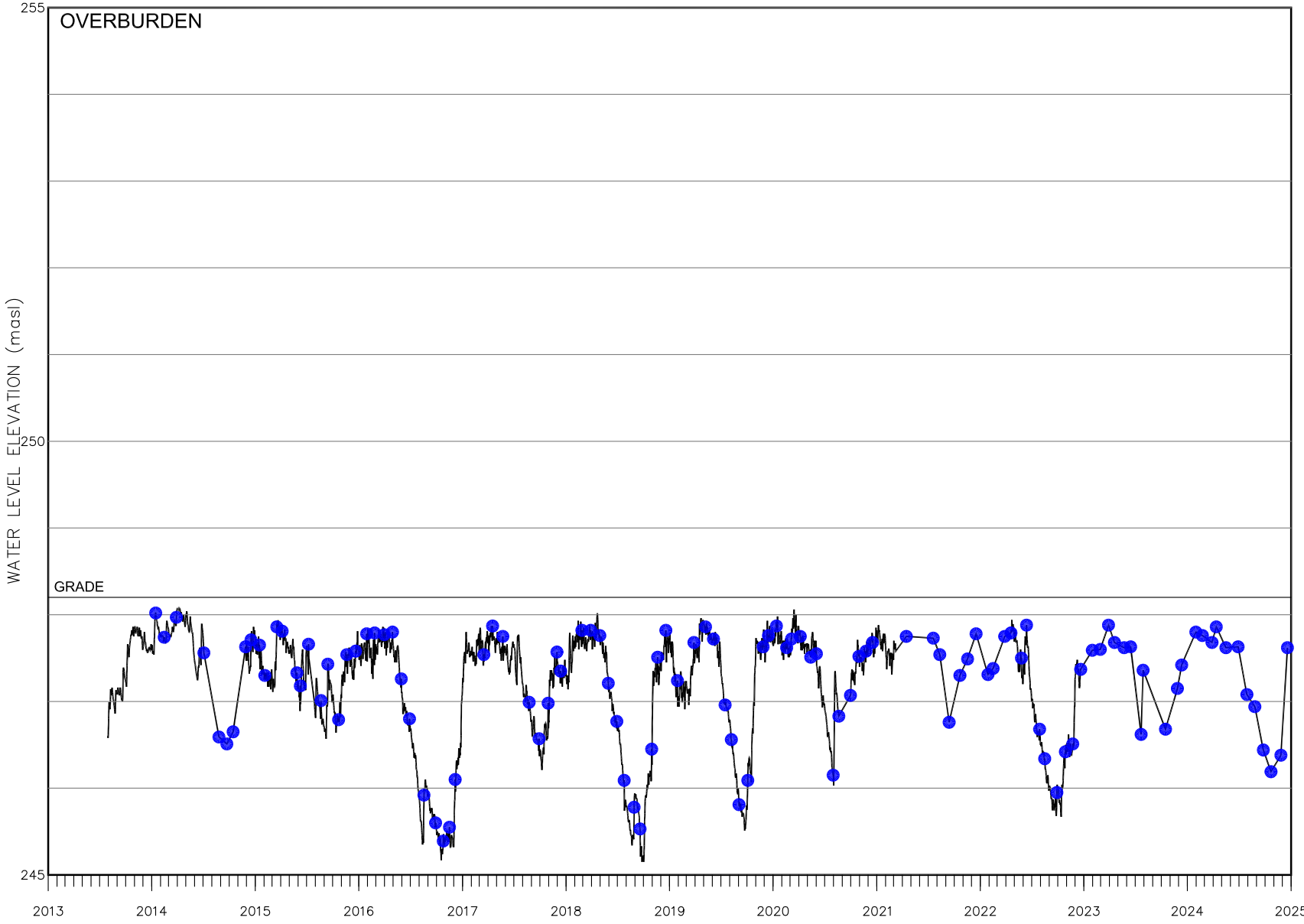
MP Elevation 246.00 masl



DATE	ELEVATION
20-Nov-18	242.44
19-Dec-18	242.76
29-Jan-19	242.70
08-May-19	243.47
09-May-19	242.93
05-Jun-19	242.96
16-Jul-19	242.19
07-Aug-19	241.93
03-Sep-19	241.79
27-Nov-19	242.73
16-Dec-19	243.12
13-Jan-20	243.72
20-Aug-20	242.14
30-Sep-20	242.29
30-Oct-20	242.34
24-Nov-20	242.52
17-Dec-20	242.67
15-Apr-21	242.88
19-Jul-21	242.87
11-Aug-21	242.20
13-Sep-21	242.05
21-Oct-21	242.35
17-Nov-21	242.33
17-Dec-21	243.20
28-Jan-22	242.27
15-Feb-22	242.13
28-Mar-22	243.12
19-Apr-22	243.19
13-May-22	242.35
13-Jun-22	243.90
16-Aug-22	241.81
28-Sep-22	242.03
28-Oct-22	242.18
23-Nov-22	242.13
21-Dec-22	242.31
31-Jan-23	242.49
28-Feb-23	242.63
29-Mar-23	243.74
19-Apr-23	242.86
23-May-23	242.73
15-Jun-23	242.73
22-Jul-23	241.97
29-Jul-23	242.37
31-Aug-23	242.26
16-Oct-23	242.11
27-Nov-23	242.27
12-Dec-23	243.48
31-Jan-24	243.20
23-Feb-24	243.05
28-Mar-24	243.08
12-Apr-24	244.46
16-May-24	243.02
28-Jun-24	242.95
29-Jul-24	242.20
26-Aug-24	242.68
25-Sep-24	242.11
22-Oct-24	241.93
26-Nov-24	242.09
19-Dec-24	242.58

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W027

BORED



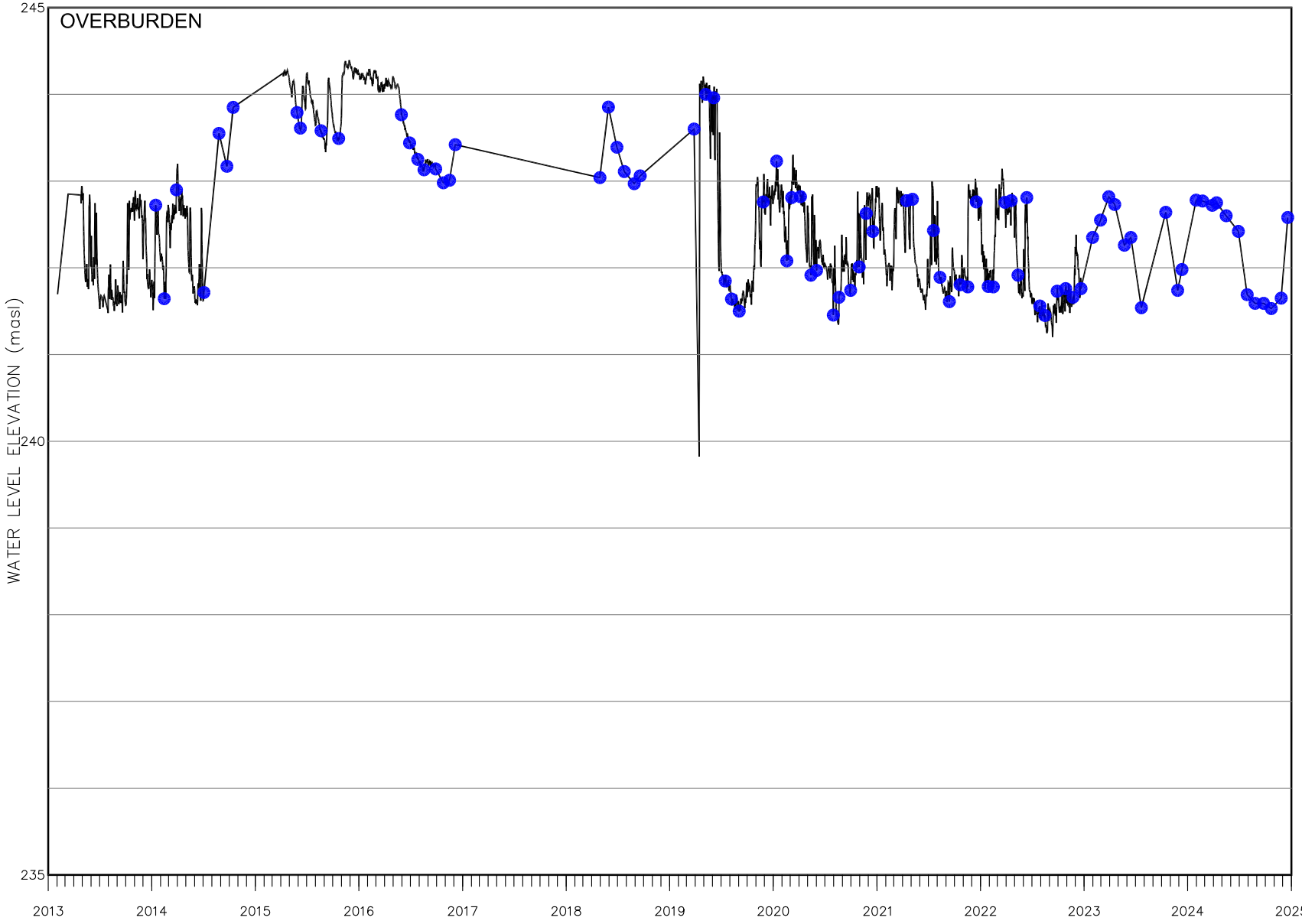
MP Elevation 248.86 masl
Grade 248.2 masl

DATE	ELEVATION
16-Nov-22	246.42
17-Nov-22	246.40
18-Nov-22	246.38
19-Nov-22	246.38
20-Nov-22	246.42
21-Nov-22	246.42
22-Nov-22	246.46
23-Nov-22	246.51
24-Nov-22	246.48
25-Nov-22	246.46
26-Nov-22	246.52
27-Nov-22	246.49
28-Nov-22	246.76
29-Nov-22	246.95
30-Nov-22	246.94
01-Dec-22	247.25
02-Dec-22	247.30
03-Dec-22	247.32
04-Dec-22	247.43
05-Dec-22	247.38
06-Dec-22	247.39
07-Dec-22	247.42
08-Dec-22	247.47
09-Dec-22	247.48
10-Dec-22	247.43
11-Dec-22	247.33
12-Dec-22	247.37
13-Dec-22	247.37
14-Dec-22	247.34
15-Dec-22	247.23
16-Dec-22	247.16
17-Dec-22	247.16
18-Dec-22	247.20
19-Dec-22	247.31
20-Dec-22	247.38
21-Dec-22	247.37
31-Jan-23	247.59
28-Feb-23	247.60
29-Mar-23	247.88
19-Apr-23	247.68
23-May-23	247.62
15-Jun-23	247.63
22-Jul-23	246.62
29-Jul-23	247.36
16-Oct-23	246.68
27-Nov-23	247.15
12-Dec-23	247.42
31-Jan-24	247.80
23-Feb-24	247.76
28-Mar-24	247.68
12-Apr-24	247.86
16-May-24	247.62
28-Jun-24	247.63
29-Jul-24	247.08
26-Aug-24	246.94
25-Sep-24	246.44
22-Oct-24	246.19
26-Nov-24	246.38
19-Dec-24	247.62

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W028

CKL-1

MP Elevation 244.00 masl

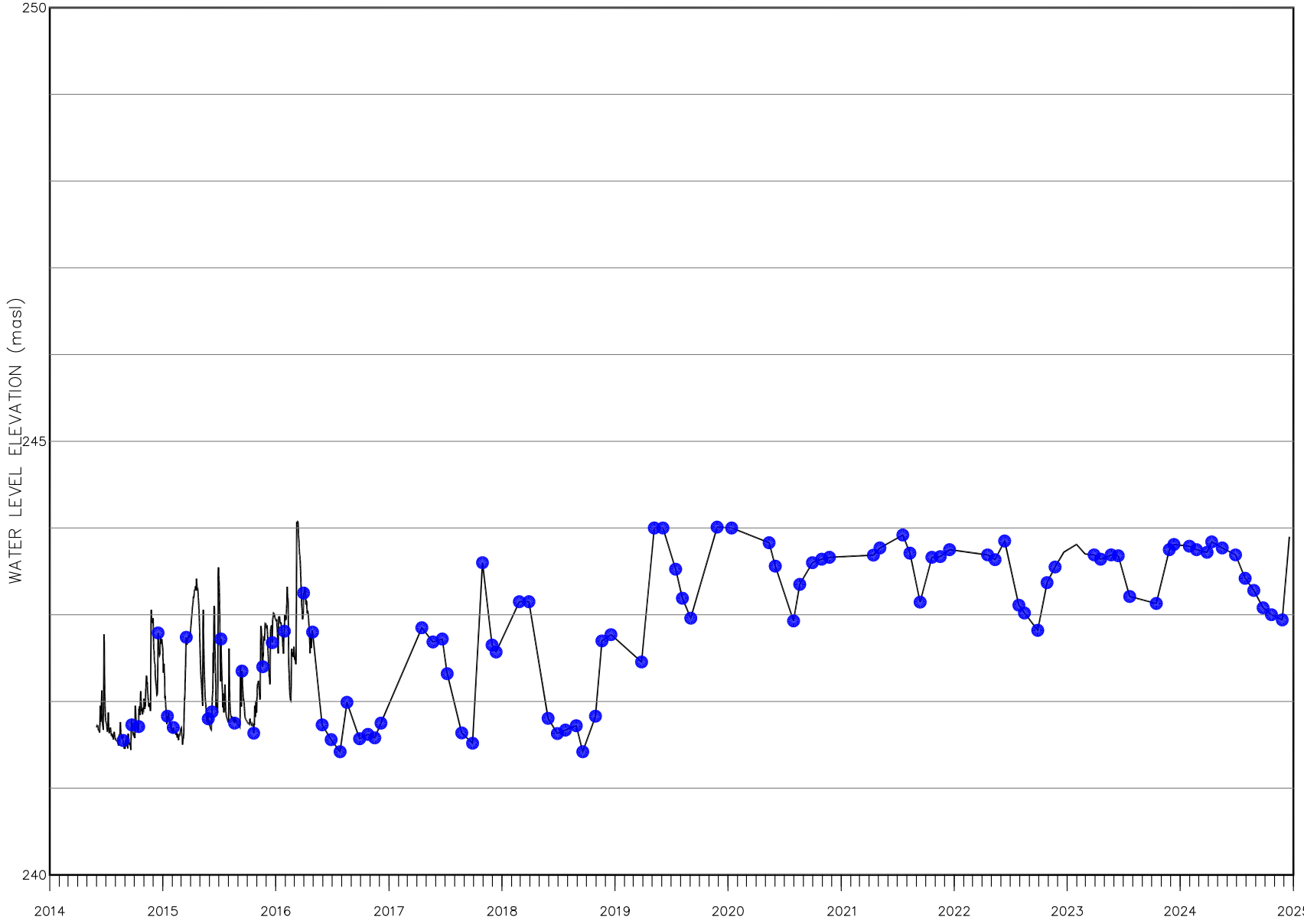


DATE	ELEVATION
15-Nov-22	241.74
16-Nov-22	241.60
17-Nov-22	241.56
18-Nov-22	241.55
19-Nov-22	241.57
20-Nov-22	241.57
21-Nov-22	241.61
22-Nov-22	241.65
23-Nov-22	241.66
24-Nov-22	241.67
25-Nov-22	241.58
26-Nov-22	241.69
27-Nov-22	241.60
28-Nov-22	241.87
29-Nov-22	242.03
30-Nov-22	241.92
01-Dec-22	242.24
02-Dec-22	242.22
03-Dec-22	242.16
04-Dec-22	242.38
05-Dec-22	242.22
06-Dec-22	242.17
07-Dec-22	242.13
08-Dec-22	242.16
09-Dec-22	242.15
10-Dec-22	242.10
11-Dec-22	241.98
12-Dec-22	241.99
13-Dec-22	241.98
14-Dec-22	241.92
15-Dec-22	241.79
16-Dec-22	241.68
17-Dec-22	241.65
18-Dec-22	241.69
19-Dec-22	241.79
20-Dec-22	241.88
21-Dec-22	241.76
31-Jan-23	242.35
28-Feb-23	242.55
29-Mar-23	242.82
19-Apr-23	242.73
23-May-23	242.26
15-Jun-23	242.35
22-Jul-23	241.54
16-Oct-23	242.64
27-Nov-23	241.74
12-Dec-23	241.98
31-Jan-24	242.78
23-Feb-24	242.77
28-Mar-24	242.72
12-Apr-24	242.75
16-May-24	242.60
28-Jun-24	242.42
29-Jul-24	241.69
26-Aug-24	241.59
25-Sep-24	241.59
22-Oct-24	241.53
26-Nov-24	241.65
19-Dec-24	242.58

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W029

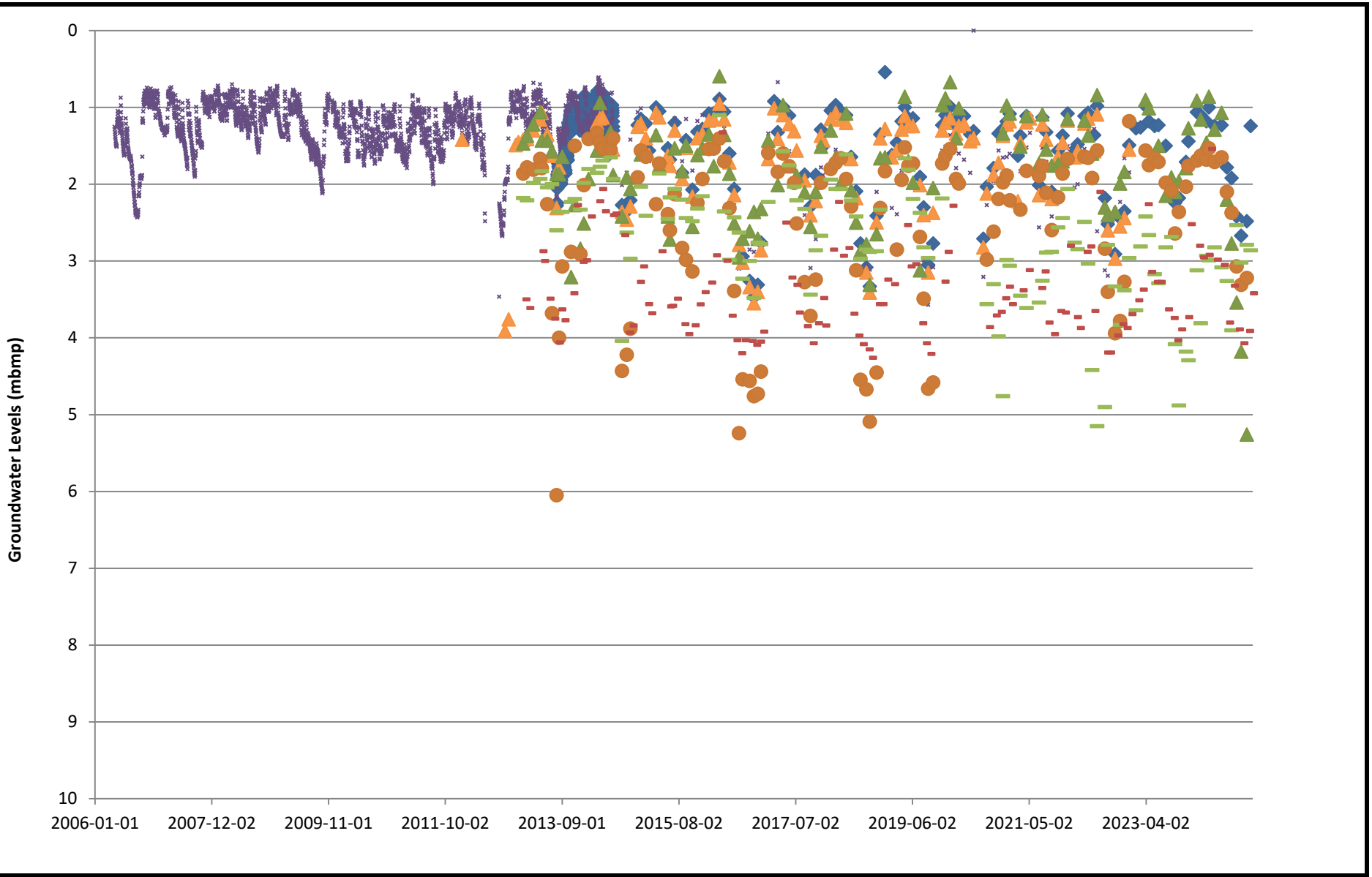
CKL-2

MP Elevation 244.00 masl

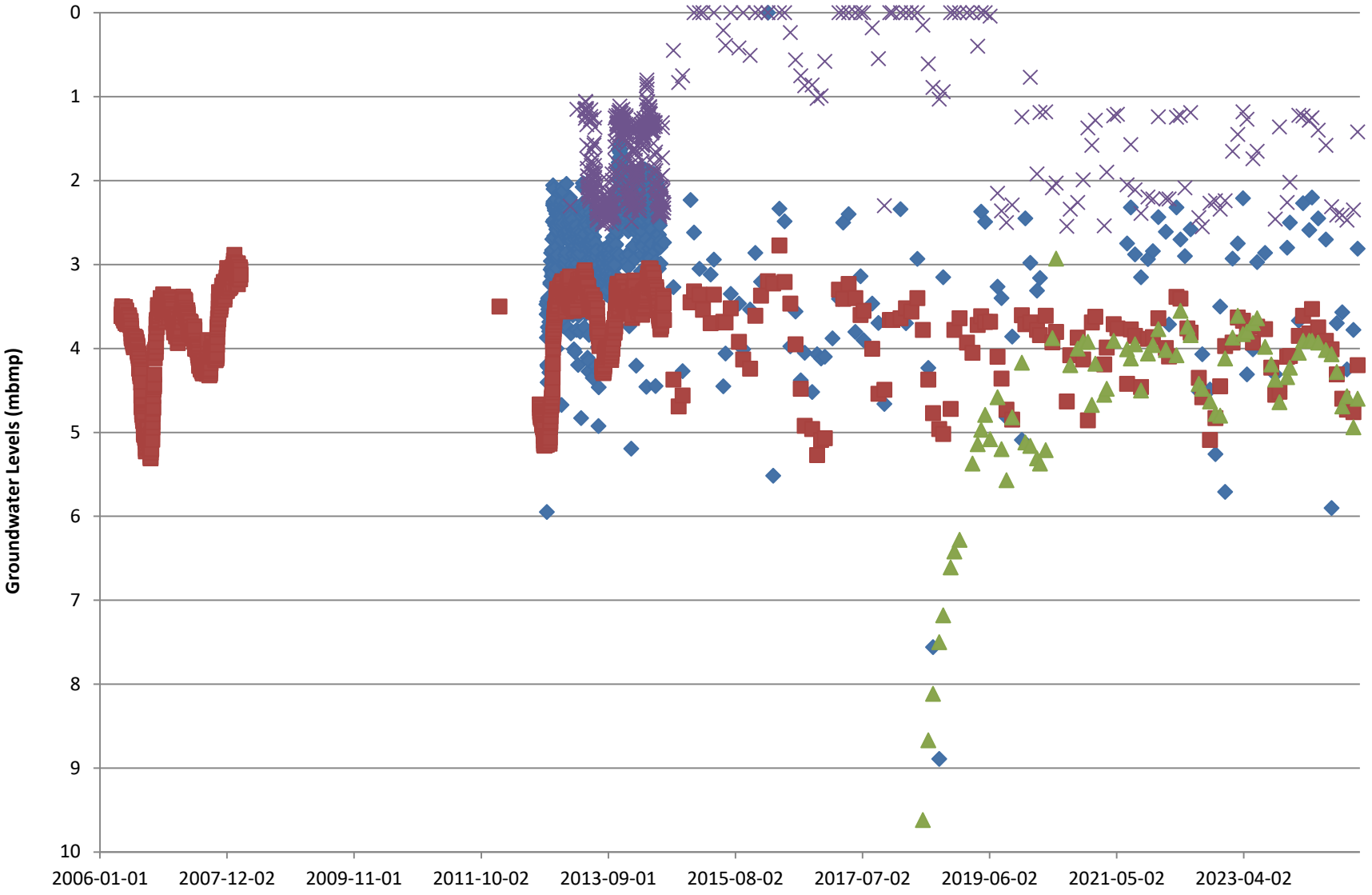


DATE	ELEVATION
19-Sep-18	241.42
30-Oct-18	241.83
20-Nov-18	242.70
19-Dec-18	242.77
28-Mar-19	242.46
08-May-19	244.00
05-Jun-19	244.00
16-Jul-19	243.52
07-Aug-19	243.19
03-Sep-19	242.96
27-Nov-19	244.01
13-Jan-20	244.00
06-Apr-20	FLW
13-May-20	243.83
02-Jun-20	243.56
31-Jul-20	242.93
20-Aug-20	243.35
30-Sep-20	243.60
30-Oct-20	243.64
24-Nov-20	243.66
15-Apr-21	243.69
06-May-21	243.77
19-Jul-21	243.92
11-Aug-21	243.71
13-Sep-21	243.15
21-Oct-21	243.66
17-Nov-21	243.67
17-Dec-21	243.75
19-Apr-22	243.69
13-May-22	243.63
13-Jun-22	243.85
29-Jul-22	243.11
16-Aug-22	243.02
28-Sep-22	242.82
28-Oct-22	243.37
23-Nov-22	243.55
21-Dec-22	243.72
31-Jan-23	243.81
28-Feb-23	243.70
29-Mar-23	243.69
19-Apr-23	243.64
23-May-23	243.69
15-Jun-23	243.68
22-Jul-23	243.21
16-Oct-23	243.13
27-Nov-23	243.75
12-Dec-23	243.81
31-Jan-24	243.79
23-Feb-24	243.75
28-Mar-24	243.72
12-Apr-24	243.84
16-May-24	243.77
28-Jun-24	243.69
29-Jul-24	243.42
26-Aug-24	243.28
25-Sep-24	243.08
22-Oct-24	243.00
26-Nov-24	242.94
19-Dec-24	243.90

GIP AGGREGATES INC. STAN McCARTHY QUARRY	Job No. CA0023633 Date: 22 Jan 25	wsp	24W030

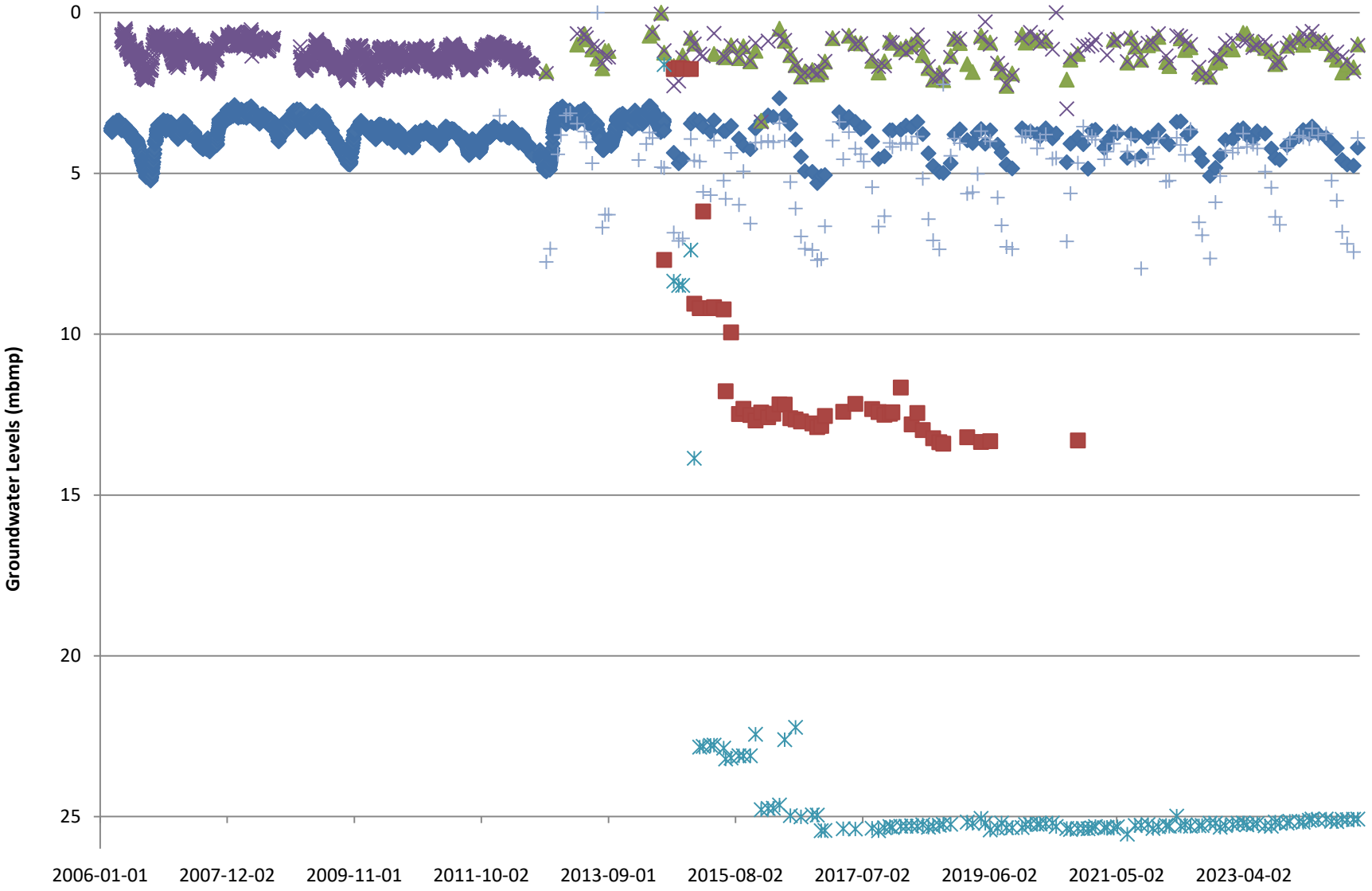


wsp	SCALE: NTS	**McCarthy Quarry** **Overburden Monitoring Wells** **GroundwaterLevel**	
	DATE: 30-Jan-25		
	CAD: CSI		
FILE No.	TEST:	Green Infrastructure Partners Inc. 2024 Annual Monitoring Report	FIGURE No **B-1**
PROJECT No. CA0023633.8620	REVIEW: SM		



DW3 OW4-1 Amx-R CLK-1

wsp	SCALE: NTS	McCarthy Quarry Verulam Monitoring Wells Groundwater Level	
	DATE: 30-Jan-25		
	CAD: CSI		
FILE No.	TEST:	Green Infrastructure Partners Inc. 2024 Annual Monitoring Report	FIGURE No B-2
PROJECT No. CA0023633.8620	REVIEW: SM		



OW4-2 OW5-2 OW5-3

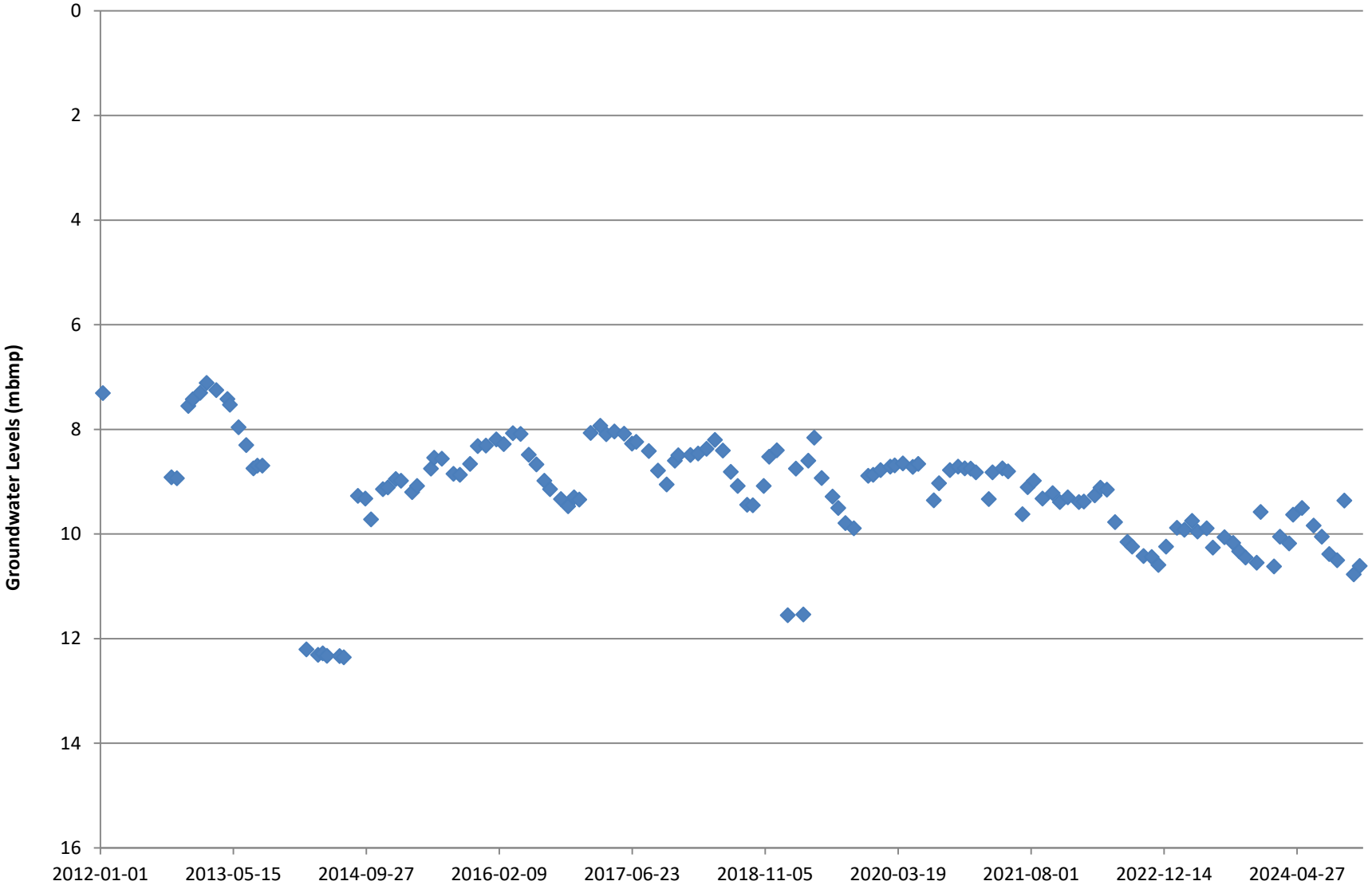
TW1-1 OW9-I OW9-II

SCALE:	NTS
DATE:	30-Jan-25
CAD:	CSI
FILE No.	
TEST:	
PROJECT No.	CA0023633.8620
REVIEW:	SM

McCarthy Quarry
Bobcaygeon Monitoring Wells
Groundwater Level

Green Infrastructure Partners Inc.
2024 Annual Monitoring Report

FIGURE No
B-3



TW1-2

	SCALE: NTS	McCarthy Quarry Precambrian Monitoring Wells Groundwater Level	
	DATE: 30-Jan-25		
	CAD: CSI		
FILE No.	TEST:	Green Infrastructure Partners Inc. 2024 Annual Monitoring Report	FIGURE No B-4
PROJECT No. CA0023633.8620	REVIEW: SM		

APPENDIX C

Certificates of Analysis

Your Project #: CA0023633.8620
Your C.O.C. #: 990795-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/05/24
Report #: R8161873
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4E9490
Received: 2024/05/17, 11:59

Sample Matrix: Water
Samples Received: 16

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	16	N/A	2024/05/23	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	16	N/A	2024/05/24	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	15	N/A	2024/05/23	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2024/05/24	CAM SOP-00463	SM 24 4500-Cl E m
Colour	5	N/A	2024/05/21	CAM SOP-00412	SM 24 2120C m
Colour	11	N/A	2024/05/22	CAM SOP-00412	SM 24 2120C m
Conductivity	16	N/A	2024/05/23	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1)	16	N/A	2024/05/22	CAM SOP-00446	SM 24 5310 B m
Fluoride	16	2024/05/18	2024/05/23	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	16	N/A	2024/05/24	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	7	N/A	2024/05/23	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	9	N/A	2024/05/24	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	2	N/A	2024/05/22	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	14	N/A	2024/05/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	4	N/A	2024/05/22	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (2)	12	N/A	2024/05/24	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (3)	16	2024/05/18	2024/05/23	CAM SOP-00413	SM 24th - 4500H+ B
Orthophosphate	1	N/A	2024/05/21	CAM SOP-00461	SM 24 4500-P E
Orthophosphate	15	N/A	2024/05/23	CAM SOP-00461	SM 24 4500-P E
Sulphate by Automated Turbidimetry	15	N/A	2024/05/23	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2024/05/24	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids (TDS calc)	16	N/A	2024/05/24		Auto Calc

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are

Your Project #: CA0023633.8620
Your C.O.C. #: 990795-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/05/24
Report #: R8161873
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4E9490
Received: 2024/05/17, 11:59

reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(3) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ankita Bhalla, Project Manager
Email: Ankita.Bhalla@bureauveritas.com
Phone# (905) 817-5700
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ063			ZEZ064		
Sampling Date			2024/05/16 11:50			2024/05/16 11:50		
COC Number			990795-01-01			990795-01-01		
	UNITS	Criteria	AM1B	RDL	QC Batch	AMX-R	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	260	1.0	9401497	2.0	1.0	9401497
Calculated TDS	mg/L	-	320	1.0	9399786	8700	1.0	9399786
Hardness (CaCO3)	mg/L	-	290	1.0	9401003	2900	1.0	9401003
Inorganics								
Total Ammonia-N	mg/L	-	0.064	0.050	9407486	5.2	0.050	9407486
Colour	TCU	-	<2	2	9402644	36	2	9402644
Conductivity	umho/cm	-	550	1.0	9402437	15000	1.0	9402444
Fluoride (F-)	mg/L	-	0.19	0.10	9402431	0.60	0.10	9402445
Dissolved Organic Carbon	mg/L	-	0.74	0.40	9402788	1.4	0.40	9402788
Orthophosphate (P)	mg/L	-	<0.010	0.010	9402477	<0.010	0.010	9402477
pH	pH	6.5:8.5	8.03		9402438	**5.52**		9402448
Dissolved Sulphate (SO4)	mg/L	-	35	1.0	9402476	<1.0	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-	260	1.0	9402436	2.0	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-	<1.0	1.0	9402475	5600	50	9402475
Nitrite (N)	mg/L	-	<0.010	0.010	9402430	0.052	0.010	9402430
Nitrate (N)	mg/L	-	<0.10	0.10	9402430	<0.10	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9402430	<0.10	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ065			ZEZ066		
Sampling Date			2024/05/16 11:50			2024/05/16 16:00		
COC Number			990795-01-01			990795-01-01		
	UNITS	Criteria	TW1-1	RDL	QC Batch	BORED	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	300	1.0	9401497	280	1.0	9401497
Calculated TDS	mg/L	-	790	1.0	9399786	340	1.0	9399786
Hardness (CaCO3)	mg/L	-	410	1.0	9401003	290	1.0	9401003
Inorganics								
Total Ammonia-N	mg/L	-	0.54	0.050	9404672	<0.050	0.050	9404672
Colour	TCU	-	3	2	9402644	<2	2	9402642
Conductivity	umho/cm	-	1500	1.0	9402444	580	1.0	9402444
Fluoride (F-)	mg/L	-	0.52	0.10	9402445	0.13	0.10	9402445
Dissolved Organic Carbon	mg/L	-	1.8	0.40	9402788	1.1	0.40	9402788
Orthophosphate (P)	mg/L	-	<0.010	0.010	9402477	<0.010	0.010	9402477
pH	pH	6.5:8.5	7.89		9402448	8.02		9402448
Dissolved Sulphate (SO4)	mg/L	-	31	1.0	9402476	29	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-	300	1.0	9402442	290	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-	270	2.0	9402475	<1.0	1.0	9402475
Nitrite (N)	mg/L	-	<0.010	0.010	9402468	<0.010	0.010	9402430
Nitrate (N)	mg/L	-	<0.10	0.10	9402468	0.18	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9402468	0.18	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ066			ZEZ067		ZEZ068		
Sampling Date			2024/05/16 16:00			2024/05/16 10:30		2024/05/16 11:00		
COC Number			990795-01-01			990795-01-01		990795-01-01		
	UNITS	Criteria	BORED Lab-Dup	RDL	QC Batch	OW4-1	QC Batch	OW4-2	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-				230	9401497	240	1.0	9401497
Calculated TDS	mg/L	-				750	9399786	840	1.0	9399786
Hardness (CaCO3)	mg/L	-				170	9401003	220	1.0	9401003
Inorganics										
Total Ammonia-N	mg/L	-				1.5	9404672	1.1	0.050	9404672
Colour	TCU	-				<2	9402642	<2	2	9402644
Conductivity	umho/cm	-				1400	9402444	1600	1.0	9402444
Fluoride (F-)	mg/L	-				0.97	9402445	0.98	0.10	9402445
Dissolved Organic Carbon	mg/L	-				1.2	9402789	1.0	0.40	9402788
Orthophosphate (P)	mg/L	-				<0.010	9402477	<0.010	0.010	9402477
pH	pH	6.5:8.5				8.12	9402448	8.00		9402448
Dissolved Sulphate (SO4)	mg/L	-				14	9402476	<1.0	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-				230	9402442	240	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-				290	9402475	350	3.0	9402475
Nitrite (N)	mg/L	-	<0.010	0.010	9402430	<0.010	9402430	<0.010	0.010	9402430
Nitrate (N)	mg/L	-	0.18	0.10	9402430	<0.10	9402430	<0.10	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-	0.18	0.10	9402430	<0.10	9402430	<0.10	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ069			ZEZ070		ZEZ071		
Sampling Date			2024/05/16 13:00			2024/05/16 13:30		2024/05/16 13:20		
COC Number			990795-01-01			990795-01-01		990795-01-01		
	UNITS	Criteria	OW5-1	RDL	QC Batch	OW5-2	QC Batch	OW5-3	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	330	1.0	9401497	120	9401497	110	1.0	9401497
Calculated TDS	mg/L	-	450	1.0	9399786	17000	9399786	20000	1.0	9399786
Hardness (CaCO3)	mg/L	-	320	1.0	9401003	6300	9401003	7400	1.0	9401003
Inorganics										
Total Ammonia-N	mg/L	-	0.11	0.050	9407486	9.4	9405828	9.5	0.050	9404672
Colour	TCU	-	<2	2	9402642	17	9402644	24	2	9402644
Conductivity	umho/cm	-	780	1.0	9402444	27000	9402444	29000	1.0	9402444
Fluoride (F-)	mg/L	-	0.43	0.10	9402445	0.44	9402445	0.44	0.10	9402445
Dissolved Organic Carbon	mg/L	-	1.4	0.40	9402789	0.42	9402788	0.75	0.40	9402788
Orthophosphate (P)	mg/L	-	<0.010	0.010	9402477	<0.010	9402477	<0.010	0.010	9402477
pH	pH	6.5:8.5	7.91		9402448	7.32	9402448	7.25		9402448
Dissolved Sulphate (SO4)	mg/L	-	57	1.0	9402476	<1.0	9402476	28	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-	330	1.0	9402442	120	9402442	110	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-	27	1.0	9402475	11000	9402475	12000	100	9402475
Nitrite (N)	mg/L	-	<0.010	0.010	9402430	<0.010	9402430	<0.010	0.010	9402430
Nitrate (N)	mg/L	-	0.29	0.10	9402430	<0.10	9402430	<0.10	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-	0.29	0.10	9402430	<0.10	9402430	<0.10	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ072			ZEZ073		
Sampling Date			2024/05/16 11:31			2024/05/16 14:45		
COC Number			990795-01-01			990795-01-01		
	UNITS	Criteria	OW6-2	RDL	QC Batch	OW7-1	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	160	1.0	9401497	290	1.0	9401497
Calculated TDS	mg/L	-	4000	1.0	9399786	4200	1.0	9399786
Hardness (CaCO3)	mg/L	-	1600	1.0	9401003	1100	1.0	9401498
Inorganics								
Total Ammonia-N	mg/L	-	0.52	0.050	9405828	2.4	0.050	9404672
Colour	TCU	-	<2	2	9402644	18	2	9402644
Conductivity	umho/cm	-	6400	1.0	9402444	7400	1.0	9402444
Fluoride (F-)	mg/L	-	0.92	0.10	9402445	1.8	0.10	9402445
Dissolved Organic Carbon	mg/L	-	0.82	0.40	9402788	0.80	0.40	9402788
Orthophosphate (P)	mg/L	-	<0.010	0.010	9402477	<0.010	0.010	9402477
pH	pH	6.5:8.5	7.71		9402448	7.78		9402448
Dissolved Sulphate (SO4)	mg/L	-	910	5.0	9402476	30	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-	160	1.0	9402442	290	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-	1600	20	9402475	2300	20	9402475
Nitrite (N)	mg/L	-	0.167	0.010	9402430	<0.010	0.010	9402430
Nitrate (N)	mg/L	-	1.06	0.10	9402430	<0.10	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-	1.23	0.10	9402430	<0.10	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
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Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ073			ZEZ074		
Sampling Date			2024/05/16 14:45			2024/05/16 14:50		
COC Number			990795-01-01			990795-01-01		
	UNITS	Criteria	OW7-1 Lab-Dup	RDL	QC Batch	OW7-2	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-				280	1.0	9401497
Calculated TDS	mg/L	-				4400	1.0	9399786
Hardness (CaCO3)	mg/L	-				1100	1.0	9401499
Inorganics								
Total Ammonia-N	mg/L	-	2.4	0.050	9404672	2.5	0.050	9404672
Colour	TCU	-				<2	2	9402642
Conductivity	umho/cm	-				7800	1.0	9402444
Fluoride (F-)	mg/L	-				1.8	0.10	9402445
Dissolved Organic Carbon	mg/L	-				0.77	0.40	9402788
Orthophosphate (P)	mg/L	-				<0.010	0.010	9402477
pH	pH	6.5:8.5				7.75		9402448
Dissolved Sulphate (SO4)	mg/L	-				15	1.0	9402476
Alkalinity (Total as CaCO3)	mg/L	-				280	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-				2500	20	9402475
Nitrite (N)	mg/L	-				<0.010	0.010	9402430
Nitrate (N)	mg/L	-				<0.10	0.10	9402430
Nitrate + Nitrite (N)	mg/L	-				<0.10	0.10	9402430

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
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Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ075		ZEZ076			ZEZ076		
Sampling Date			2024/05/16 16:45		2024/05/16 16:50			2024/05/16 16:50		
COC Number			990795-01-01		990795-01-01			990795-01-01		
	UNITS	Criteria	OW8-1	QC Batch	OW8-2	RDL	QC Batch	OW8-2 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	280	9401497	240	1.0	9401497			
Calculated TDS	mg/L	-	450	9399786	390	1.0	9399786			
Hardness (CaCO3)	mg/L	-	340	9401499	310	1.0	9401499			
Inorganics										
Total Ammonia-N	mg/L	-	0.32	9404672	<0.050	0.050	9404672			
Colour	TCU	-	4	9402642	3	2	9402644			
Conductivity	umho/cm	-	760	9402444	650	1.0	9402444	650	1.0	9402444
Fluoride (F-)	mg/L	-	0.46	9402445	0.44	0.10	9402445	0.43	0.10	9402445
Dissolved Organic Carbon	mg/L	-	1.6	9402788	1.9	0.40	9402789	1.8	0.40	9402789
Orthophosphate (P)	mg/L	-	<0.010	9402477	<0.010	0.010	9402465			
pH	pH	6.5:8.5	7.79	9402448	8.00		9402448	8.01		9402448
Dissolved Sulphate (SO4)	mg/L	-	70	9402476	63	1.0	9402464			
Alkalinity (Total as CaCO3)	mg/L	-	280	9402442	240	1.0	9402442	240	1.0	9402442
Dissolved Chloride (Cl-)	mg/L	-	38	9402475	27	1.0	9402463			
Nitrite (N)	mg/L	-	<0.010	9402468	<0.010	0.010	9402468			
Nitrate (N)	mg/L	-	<0.10	9402468	0.40	0.10	9402468			
Nitrate + Nitrite (N)	mg/L	-	<0.10	9402468	0.40	0.10	9402468			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4E9490
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			ZEZ077		ZEZ078			ZEZ078		
Sampling Date			2024/05/16		2024/05/16			2024/05/16		
COC Number			990795-01-01		990795-01-01			990795-01-01		
	UNITS	Criteria	DUP2	QC Batch	DUP4	RDL	QC Batch	DUP4 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	240	9401497	300	1.0	9401497			
Calculated TDS	mg/L	-	800	9399786	810	1.0	9399786			
Hardness (CaCO3)	mg/L	-	180	9401499	410	1.0	9401499			
Inorganics										
Total Ammonia-N	mg/L	-	1.4	9407486	0.54	0.050	9404672			
Colour	TCU	-	<2	9402644	4	2	9402644	3	2	9402644
Conductivity	umho/cm	-	1500	9402444	1500	1.0	9402444			
Fluoride (F-)	mg/L	-	0.95	9402445	0.48	0.10	9402445			
Dissolved Organic Carbon	mg/L	-	1.3	9402788	1.8	0.40	9402789			
Orthophosphate (P)	mg/L	-	<0.010	9402477	<0.010	0.010	9402477			
pH	pH	6.5:8.5	8.10	9402448	7.86		9402448			
Dissolved Sulphate (SO4)	mg/L	-	14	9402476	31	1.0	9402476			
Alkalinity (Total as CaCO3)	mg/L	-	250	9402442	300	1.0	9402442			
Dissolved Chloride (Cl-)	mg/L	-	310	9402475	280	2.0	9402475			
Nitrite (N)	mg/L	-	<0.010	9402468	0.014	0.010	9402430			
Nitrate (N)	mg/L	-	<0.10	9402468	<0.10	0.10	9402430			
Nitrate + Nitrite (N)	mg/L	-	<0.10	9402468	<0.10	0.10	9402430			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZEZ063	ZEZ063		ZEZ064		ZEZ065	ZEZ066		
Sampling Date		2024/05/16 11:50	2024/05/16 11:50		2024/05/16 11:50		2024/05/16 11:50	2024/05/16 16:00		
COC Number		990795-01-01	990795-01-01		990795-01-01		990795-01-01	990795-01-01		
	UNITS	AM1B	AM1B Lab-Dup	RDL	AMX-R	RDL	TW1-1	BORED	RDL	QC Batch
Metals										
Dissolved Calcium (Ca)	ug/L	60000	60000	200	550000	2000	92000	68000	200	9404318
Dissolved Magnesium (Mg)	ug/L	34000	34000	50	380000	50	44000	29000	50	9404318
Dissolved Phosphorus (P)	ug/L	<100	<100	100	<100	100	<100	<100	100	9404318
Dissolved Potassium (K)	ug/L	2300	2300	200	42000	200	8400	4200	200	9404318
Dissolved Sodium (Na)	ug/L	5200	5200	100	2100000	500	160000	16000	100	9404318

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		ZEZ067	ZEZ068	ZEZ069		ZEZ070	ZEZ071		
Sampling Date		2024/05/16 10:30	2024/05/16 11:00	2024/05/16 13:00		2024/05/16 13:30	2024/05/16 13:20		
COC Number		990795-01-01	990795-01-01	990795-01-01		990795-01-01	990795-01-01		
	UNITS	OW4-1	OW4-2	OW5-1	RDL	OW5-2	OW5-3	RDL	QC Batch
Metals									
Dissolved Calcium (Ca)	ug/L	32000	42000	65000	200	1200000	1500000	5000	9404318
Dissolved Magnesium (Mg)	ug/L	21000	29000	39000	50	780000	890000	250	9404318
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	100	<500	<500	500	9404318
Dissolved Potassium (K)	ug/L	9400	10000	6300	200	73000	78000	1000	9404318
Dissolved Sodium (Na)	ug/L	230000	240000	45000	100	3900000	4800000	1000	9404318

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZEZ072	ZEZ073	ZEZ074		ZEZ075	ZEZ076	ZEZ077		
Sampling Date		2024/05/16 11:31	2024/05/16 14:45	2024/05/16 14:50		2024/05/16 16:45	2024/05/16 16:50	2024/05/16		
COC Number		990795-01-01	990795-01-01	990795-01-01		990795-01-01	990795-01-01	990795-01-01		
	UNITS	OW6-2	OW7-1	OW7-2	RDL	OW8-1	OW8-2	DUP2	RDL	QC Batch
Metals										
Dissolved Calcium (Ca)	ug/L	320000	210000	230000	1000	100000	92000	35000	200	9404318
Dissolved Magnesium (Mg)	ug/L	200000	130000	140000	50	21000	19000	24000	50	9404318
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	100	<100	<100	<100	100	9404318
Dissolved Potassium (K)	ug/L	19000	19000	19000	200	3900	3900	10000	200	9404318
Dissolved Sodium (Na)	ug/L	880000	1300000	1300000	500	37000	34000	250000	100	9404318

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZEZ078		
Sampling Date		2024/05/16		
COC Number		990795-01-01		
	UNITS	DUP4	RDL	QC Batch
Metals				
Dissolved Calcium (Ca)	ug/L	89000	200	9404318
Dissolved Magnesium (Mg)	ug/L	46000	50	9404318
Dissolved Phosphorus (P)	ug/L	<100	100	9404318
Dissolved Potassium (K)	ug/L	8500	200	9404318
Dissolved Sodium (Na)	ug/L	170000	100	9404318

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: ZEZ063
Sample ID: AM1B
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402436	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402437	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402431	2024/05/18	2024/05/23	Surinder Rai
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9407486	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402438	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ063 Dup
Sample ID: AM1B
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti

Bureau Veritas ID: ZEZ064
Sample ID: AMX-R
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9407486	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

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TEST SUMMARY

Bureau Veritas ID: ZEZ065
Sample ID: TW1-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402468	N/A	2024/05/22	Vidhi Khatri
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ066
Sample ID: BORED
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ066 Dup
Sample ID: BORED
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda

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TEST SUMMARY

Bureau Veritas ID: ZEZ067
Sample ID: OW4-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ068
Sample ID: OW4-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ069
Sample ID: OW5-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu

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TEST SUMMARY

Bureau Veritas ID: ZEZ069
Sample ID: OW5-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9407486	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ070
Sample ID: OW5-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9405828	N/A	2024/05/22	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ071
Sample ID: OW5-3
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz

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TEST SUMMARY

Bureau Veritas ID: ZEZ071
Sample ID: OW5-3
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ072
Sample ID: OW6-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401003	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9405828	N/A	2024/05/22	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ073
Sample ID: OW7-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401498	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti

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TEST SUMMARY

Bureau Veritas ID: ZEZ073
Sample ID: OW7-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ073 Dup
Sample ID: OW7-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan

Bureau Veritas ID: ZEZ074
Sample ID: OW7-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ075
Sample ID: OW8-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil

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TEST SUMMARY

Bureau Veritas ID: ZEZ075
Sample ID: OW8-1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402468	N/A	2024/05/22	Vidhi Khatri
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ076
Sample ID: OW8-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402463	N/A	2024/05/24	Geetee Noorzaad
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402468	N/A	2024/05/22	Vidhi Khatri
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402465	N/A	2024/05/21	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402464	N/A	2024/05/24	Geetee Noorzaad
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ076 Dup
Sample ID: OW8-2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil

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TEST SUMMARY

Bureau Veritas ID: ZEZ077
Sample ID: DUP2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9407486	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402468	N/A	2024/05/22	Vidhi Khatri
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ078
Sample ID: DUP4
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402442	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402475	N/A	2024/05/23	Alina Dobreanu
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz
Conductivity	AT	9402444	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402445	2024/05/18	2024/05/23	Nachiketa Gohil
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/24	Prempal Bhatti
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402430	N/A	2024/05/24	Jinal Chavda
pH	AT	9402448	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402477	N/A	2024/05/23	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9402476	N/A	2024/05/23	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk

Bureau Veritas ID: ZEZ078 Dup
Sample ID: DUP4
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Colour	SPEC	9402644	N/A	2024/05/22	Gyulshen Idriz

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.7°C
Package 2	9.3°C

Sample ZEZ070 [OW5-2] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZEZ071 [OW5-3] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9402430	J1C	Matrix Spike [ZEZ066-01]	Nitrite (N)	2024/05/24		100	%	80 - 120
			Nitrate (N)	2024/05/24		91	%	80 - 120
9402430	J1C	Spiked Blank	Nitrite (N)	2024/05/24		100	%	80 - 120
			Nitrate (N)	2024/05/24		92	%	80 - 120
9402430	J1C	Method Blank	Nitrite (N)	2024/05/24	<0.010		mg/L	
			Nitrate (N)	2024/05/24	<0.10		mg/L	
9402430	J1C	RPD [ZEZ066-01]	Nitrite (N)	2024/05/24	NC		%	20
			Nitrate (N)	2024/05/24	2.0		%	20
9402431	SAU	Matrix Spike	Fluoride (F-)	2024/05/23		102	%	80 - 120
9402431	SAU	Spiked Blank	Fluoride (F-)	2024/05/23		101	%	80 - 120
9402431	SAU	Method Blank	Fluoride (F-)	2024/05/23	<0.10		mg/L	
9402431	SAU	RPD	Fluoride (F-)	2024/05/23	7.1		%	20
9402436	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/05/23		96	%	85 - 115
9402436	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/05/23	<1.0		mg/L	
9402436	NGI	RPD	Alkalinity (Total as CaCO3)	2024/05/23	0.81		%	20
9402437	NGI	Spiked Blank	Conductivity	2024/05/23		100	%	85 - 115
9402437	NGI	Method Blank	Conductivity	2024/05/23	<1.0		umho/cm	
9402437	NGI	RPD	Conductivity	2024/05/23	0.14		%	10
9402438	NGI	Spiked Blank	pH	2024/05/23		102	%	98 - 103
9402438	NGI	RPD	pH	2024/05/23	0.13		%	N/A
9402442	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/05/23		96	%	85 - 115
9402442	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/05/23	<1.0		mg/L	
9402442	NGI	RPD [ZEZ076-01]	Alkalinity (Total as CaCO3)	2024/05/23	0.64		%	20
9402444	NGI	Spiked Blank	Conductivity	2024/05/23		100	%	85 - 115
9402444	NGI	Method Blank	Conductivity	2024/05/23	<1.0		umho/cm	
9402444	NGI	RPD [ZEZ076-01]	Conductivity	2024/05/23	0.63		%	10
9402445	NGI	Matrix Spike [ZEZ076-01]	Fluoride (F-)	2024/05/23		100	%	80 - 120
9402445	NGI	Spiked Blank	Fluoride (F-)	2024/05/23		99	%	80 - 120
9402445	NGI	Method Blank	Fluoride (F-)	2024/05/23	<0.10		mg/L	
9402445	NGI	RPD [ZEZ076-01]	Fluoride (F-)	2024/05/23	2.4		%	20
9402448	NGI	Spiked Blank	pH	2024/05/23		102	%	98 - 103
9402448	NGI	RPD [ZEZ076-01]	pH	2024/05/23	0.076		%	N/A
9402463	GNO	Matrix Spike	Dissolved Chloride (Cl-)	2024/05/24		101	%	80 - 120
9402463	GNO	Spiked Blank	Dissolved Chloride (Cl-)	2024/05/24		102	%	80 - 120
9402463	GNO	Method Blank	Dissolved Chloride (Cl-)	2024/05/24	<1.0		mg/L	
9402463	GNO	RPD	Dissolved Chloride (Cl-)	2024/05/24	NC		%	20
9402464	GNO	Matrix Spike	Dissolved Sulphate (SO4)	2024/05/24		103	%	75 - 125
9402464	GNO	Spiked Blank	Dissolved Sulphate (SO4)	2024/05/24		98	%	80 - 120
9402464	GNO	Method Blank	Dissolved Sulphate (SO4)	2024/05/24	<1.0		mg/L	
9402464	GNO	RPD	Dissolved Sulphate (SO4)	2024/05/24	6.1		%	20
9402465	ADB	Matrix Spike	Orthophosphate (P)	2024/05/21		92	%	75 - 125
9402465	ADB	Spiked Blank	Orthophosphate (P)	2024/05/21		91	%	80 - 120
9402465	ADB	Method Blank	Orthophosphate (P)	2024/05/21	<0.010		mg/L	
9402465	ADB	RPD	Orthophosphate (P)	2024/05/21	NC		%	20
9402468	VKH	Matrix Spike	Nitrite (N)	2024/05/22		99	%	80 - 120
			Nitrate (N)	2024/05/22		95	%	80 - 120
9402468	VKH	Spiked Blank	Nitrite (N)	2024/05/22		102	%	80 - 120
			Nitrate (N)	2024/05/22		97	%	80 - 120
9402468	VKH	Method Blank	Nitrite (N)	2024/05/22	<0.010		mg/L	
			Nitrate (N)	2024/05/22	<0.10		mg/L	
9402468	VKH	RPD	Nitrite (N)	2024/05/22	NC		%	20
			Nitrate (N)	2024/05/22	0.19		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9402475	ADB	Matrix Spike	Dissolved Chloride (Cl-)	2024/05/23		NC	%	80 - 120
9402475	ADB	Spiked Blank	Dissolved Chloride (Cl-)	2024/05/23		105	%	80 - 120
9402475	ADB	Method Blank	Dissolved Chloride (Cl-)	2024/05/23	<1.0		mg/L	
9402475	ADB	RPD	Dissolved Chloride (Cl-)	2024/05/23	0.24		%	20
9402476	ADB	Matrix Spike	Dissolved Sulphate (SO4)	2024/05/23		NC	%	75 - 125
9402476	ADB	Spiked Blank	Dissolved Sulphate (SO4)	2024/05/23		97	%	80 - 120
9402476	ADB	Method Blank	Dissolved Sulphate (SO4)	2024/05/23	<1.0		mg/L	
9402476	ADB	RPD	Dissolved Sulphate (SO4)	2024/05/23	5.1		%	20
9402477	ADB	Matrix Spike	Orthophosphate (P)	2024/05/23		91	%	75 - 125
9402477	ADB	Spiked Blank	Orthophosphate (P)	2024/05/23		97	%	80 - 120
9402477	ADB	Method Blank	Orthophosphate (P)	2024/05/23	<1.0		mg/L	
9402477	ADB	RPD	Orthophosphate (P)	2024/05/23	NC		%	20
9402642	GID	Spiked Blank	Colour	2024/05/21		100	%	80 - 120
9402642	GID	Method Blank	Colour	2024/05/21	<2		TCU	
9402642	GID	RPD	Colour	2024/05/21	0.49		%	25
9402644	GID	Spiked Blank	Colour	2024/05/22		100	%	80 - 120
9402644	GID	Method Blank	Colour	2024/05/22	<2		TCU	
9402644	GID	RPD [ZEZ078-01]	Colour	2024/05/22	NC		%	25
9402788	GID	Matrix Spike	Dissolved Organic Carbon	2024/05/22		92	%	80 - 120
9402788	GID	Spiked Blank	Dissolved Organic Carbon	2024/05/22		98	%	80 - 120
9402788	GID	Method Blank	Dissolved Organic Carbon	2024/05/22	<0.40		mg/L	
9402788	GID	RPD	Dissolved Organic Carbon	2024/05/22	5.2		%	20
9402789	GID	Matrix Spike [ZEZ076-02]	Dissolved Organic Carbon	2024/05/22		94	%	80 - 120
9402789	GID	Spiked Blank	Dissolved Organic Carbon	2024/05/22		97	%	80 - 120
9402789	GID	Method Blank	Dissolved Organic Carbon	2024/05/22	<0.40		mg/L	
9402789	GID	RPD [ZEZ076-02]	Dissolved Organic Carbon	2024/05/22	8.0		%	20
9404318	PBA	Matrix Spike [ZEZ063-03]	Dissolved Calcium (Ca)	2024/05/23		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2024/05/23		NC	%	80 - 120
			Dissolved Phosphorus (P)	2024/05/23		108	%	80 - 120
			Dissolved Potassium (K)	2024/05/23		107	%	80 - 120
			Dissolved Sodium (Na)	2024/05/23		105	%	80 - 120
9404318	PBA	Spiked Blank	Dissolved Calcium (Ca)	2024/05/23		100	%	80 - 120
			Dissolved Magnesium (Mg)	2024/05/23		99	%	80 - 120
			Dissolved Phosphorus (P)	2024/05/23		102	%	80 - 120
			Dissolved Potassium (K)	2024/05/23		101	%	80 - 120
			Dissolved Sodium (Na)	2024/05/23		99	%	80 - 120
9404318	PBA	Method Blank	Dissolved Calcium (Ca)	2024/05/23	<200		ug/L	
			Dissolved Magnesium (Mg)	2024/05/23	<50		ug/L	
			Dissolved Phosphorus (P)	2024/05/23	<100		ug/L	
			Dissolved Potassium (K)	2024/05/23	<200		ug/L	
			Dissolved Sodium (Na)	2024/05/23	<100		ug/L	
9404318	PBA	RPD [ZEZ063-03]	Dissolved Calcium (Ca)	2024/05/23	0.82		%	20
			Dissolved Magnesium (Mg)	2024/05/23	0.38		%	20
			Dissolved Phosphorus (P)	2024/05/23	NC		%	20
			Dissolved Potassium (K)	2024/05/23	0.16		%	20
			Dissolved Sodium (Na)	2024/05/23	0.76		%	20
9404672	MJ1	Matrix Spike [ZEZ073-04]	Total Ammonia-N	2024/05/23		90	%	75 - 125
9404672	MJ1	Spiked Blank	Total Ammonia-N	2024/05/23		100	%	80 - 120
9404672	MJ1	Method Blank	Total Ammonia-N	2024/05/23	<0.050		mg/L	
9404672	MJ1	RPD [ZEZ073-04]	Total Ammonia-N	2024/05/23	0.23		%	20
9405828	MJ1	Matrix Spike	Total Ammonia-N	2024/05/22		91	%	75 - 125
9405828	MJ1	Spiked Blank	Total Ammonia-N	2024/05/22		99	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9405828	MJ1	Method Blank	Total Ammonia-N	2024/05/22	<0.050		mg/L	
9405828	MJ1	RPD	Total Ammonia-N	2024/05/22	1.1		%	20
9407486	MJ1	Matrix Spike	Total Ammonia-N	2024/05/23		95	%	75 - 125
9407486	MJ1	Spiked Blank	Total Ammonia-N	2024/05/23		100	%	80 - 120
9407486	MJ1	Method Blank	Total Ammonia-N	2024/05/23	<0.050		mg/L	
9407486	MJ1	RPD	Total Ammonia-N	2024/05/23	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Exceedance Summary Table – Prov. Water Quality Obj.

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: CA0023633.8620
Site Location: McCarthy
Your C.O.C. #: 990794-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/05/24
Report #: R8161871
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4E9535
Received: 2024/05/17, 11:58

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	4	N/A	2024/05/23	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2024/05/24	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	4	N/A	2024/05/24	CAM SOP-00463	SM 24 4500-Cl E m
Colour	4	N/A	2024/05/21	CAM SOP-00412	SM 24 2120C m
Conductivity	4	N/A	2024/05/23	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1)	1	N/A	2024/05/21	CAM SOP-00446	SM 24 5310 B m
Dissolved Organic Carbon (DOC) (1)	3	N/A	2024/05/22	CAM SOP-00446	SM 24 5310 B m
Fluoride	4	2024/05/18	2024/05/23	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2024/05/24	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	4	N/A	2024/05/23	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	4	N/A	2024/05/24		
Anion and Cation Sum	4	N/A	2024/05/24		
Total Ammonia-N	3	N/A	2024/05/22	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	1	N/A	2024/05/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	1	N/A	2024/05/22	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (2)	1	N/A	2024/05/23	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (2)	2	N/A	2024/05/24	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (3)	4	2024/05/18	2024/05/23	CAM SOP-00413	SM 24th - 4500H+ B
Orthophosphate	4	N/A	2024/05/21	CAM SOP-00461	SM 24 4500-P E
Sat. pH and Langelier Index (@ 20C)	4	N/A	2024/05/24		Auto Calc
Sat. pH and Langelier Index (@ 4C)	4	N/A	2024/05/24		Auto Calc
Sulphate by Automated Turbidimetry	4	N/A	2024/05/24	CAM SOP-00464	SM 24 4500-SO42- E m
Tannins & Lignins	4	N/A	2024/05/21	CAM SOP-00410	SM 24 5550 B m
Total Dissolved Solids (TDS calc)	4	N/A	2024/05/24		Auto Calc
Turbidity	4	N/A	2024/05/18	CAM SOP-00417	SM 24 2130 B

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

Your Project #: CA0023633.8620
Site Location: McCarthy
Your C.O.C. #: 990794-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/05/24
Report #: R8161871
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4E9535
Received: 2024/05/17, 11:58

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(3) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ankita Bhalla, Project Manager
Email: Ankita.Bhalla@bureauveritas.com
Phone# (905) 817-5700

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			ZEZ286		ZEZ287		ZEZ288		
Sampling Date			2024/05/16 14:00		2024/05/16 14:10		2024/05/16 09:05		
COC Number			990794-01-01		990794-01-01		990794-01-01		
	UNITS	Criteria	DW1	QC Batch	DW2	QC Batch	DW3	RDL	QC Batch
Calculated Parameters									
Anion Sum	me/L	-	11.9	9399778	7.48	9399778	8.15	N/A	9399778
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	350	9401497	350	9401497	230	1.0	9401497
Calculated TDS	mg/L	-	650	9399786	400	9399786	450	1.0	9399786
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	2.1	9401497	2.4	9401497	3.0	1.0	9401497
Cation Sum	me/L	-	12.7	9399778	7.98	9399778	8.55	N/A	9399778
Hardness (CaCO3)	mg/L	-	510	9401499	370	9401499	190	1.0	9401499
Ion Balance (% Difference)	%	-	3.50	9399787	3.23	9399787	2.39	N/A	9399787
Langelier Index (@ 20C)	N/A	-	1.05	9399783	1.07	9399783	0.571		9399783
Langelier Index (@ 4C)	N/A	-	0.800	9399784	0.818	9399784	0.322		9399784
Saturation pH (@ 20C)	N/A	-	6.76	9399783	6.80	9399783	7.57		9399783
Saturation pH (@ 4C)	N/A	-	7.01	9399784	7.05	9399784	7.82		9399784
Inorganics									
Total Ammonia-N	mg/L	-	0.13	9405828	0.17	9404672	<0.050	0.050	9405828
Conductivity	umho/cm	-	1200	9402437	670	9402437	850	1.0	9402437
Dissolved Organic Carbon	mg/L	-	1.5	9402707	2.7	9402788	0.52	0.40	9402789
Orthophosphate (P)	mg/L	-	<0.010	9402465	<0.010	9402465	<0.010	0.010	9402465
pH	pH	6.5:8.5	7.81	9402438	7.86	9402438	8.14		9402438
Dissolved Sulphate (SO4)	mg/L	-	25	9402464	16	9402464	5.3	1.0	9402464
Alkalinity (Total as CaCO3)	mg/L	-	350	9402436	350	9402436	230	1.0	9402436
Dissolved Chloride (Cl-)	mg/L	-	160	9402463	4.8	9402463	120	1.0	9402463
Nitrite (N)	mg/L	-	<0.010	9402473	<0.010	9402435	<0.010	0.010	9402435
Nitrate (N)	mg/L	-	0.14	9402473	0.43	9402435	<0.10	0.10	9402435
Nitrate + Nitrite (N)	mg/L	-	0.14	9402473	0.43	9402435	<0.10	0.10	9402435
Metals									
Dissolved Aluminum (Al)	ug/L	-	<4.9	9404318	<4.9	9404318	<4.9	4.9	9404318
Dissolved Antimony (Sb)	ug/L	20	<0.50	9404318	<0.50	9404318	<0.50	0.50	9404318
Dissolved Arsenic (As)	ug/L	100	<1.0	9404318	<1.0	9404318	<1.0	1.0	9404318
Dissolved Barium (Ba)	ug/L	-	150	9404318	59	9404318	200	2.0	9404318

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999
N/A = Not Applicable

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			ZEZ286		ZEZ287		ZEZ288		
Sampling Date			2024/05/16 14:00		2024/05/16 14:10		2024/05/16 09:05		
COC Number			990794-01-01		990794-01-01		990794-01-01		
	UNITS	Criteria	DW1	QC Batch	DW2	QC Batch	DW3	RDL	QC Batch
Dissolved Beryllium (Be)	ug/L	11	<0.40	9404318	<0.40	9404318	<0.40	0.40	9404318
Dissolved Boron (B)	ug/L	200	35	9404318	25	9404318	**750**	10	9404318
Dissolved Cadmium (Cd)	ug/L	0.2	<0.090	9404318	<0.090	9404318	<0.090	0.090	9404318
Dissolved Calcium (Ca)	ug/L	-	160000	9404318	130000	9404318	33000	200	9404318
Dissolved Chromium (Cr)	ug/L	-	<5.0	9404318	<5.0	9404318	<5.0	5.0	9404318
Dissolved Cobalt (Co)	ug/L	0.9	<0.50	9404318	<0.50	9404318	<0.50	0.50	9404318
Dissolved Copper (Cu)	ug/L	5	**26**	9404318	1.9	9404318	<0.90	0.90	9404318
Dissolved Iron (Fe)	ug/L	300	<100	9404318	<100	9404318	<100	100	9404318
Dissolved Lead (Pb)	ug/L	5	<0.50	9404318	<0.50	9404318	<0.50	0.50	9404318
Dissolved Magnesium (Mg)	ug/L	-	28000	9404318	11000	9404318	26000	50	9404318
Dissolved Manganese (Mn)	ug/L	-	77	9404318	11	9404318	6.5	2.0	9404318
Dissolved Molybdenum (Mo)	ug/L	40	<0.50	9404318	<0.50	9404318	<0.50	0.50	9404318
Dissolved Nickel (Ni)	ug/L	25	<1.0	9404318	<1.0	9404318	<1.0	1.0	9404318
Dissolved Phosphorus (P)	ug/L	-	<100	9404318	<100	9404318	<100	100	9404318
Dissolved Potassium (K)	ug/L	-	1900	9404318	6700	9404318	7200	200	9404318
Dissolved Selenium (Se)	ug/L	100	<2.0	9404318	<2.0	9404318	<2.0	2.0	9404318
Dissolved Silicon (Si)	ug/L	-	7400	9404318	4300	9404318	6100	50	9404318
Dissolved Silver (Ag)	ug/L	0.1	<0.090	9404318	<0.090	9404318	<0.090	0.090	9404318
Dissolved Sodium (Na)	ug/L	-	58000	9404318	11000	9404318	110000	100	9404318
Dissolved Strontium (Sr)	ug/L	-	520	9404318	300	9404318	2200	1.0	9404318
Dissolved Thallium (Tl)	ug/L	0.3	<0.050	9404318	<0.050	9404318	<0.050	0.050	9404318
Dissolved Titanium (Ti)	ug/L	-	<5.0	9404318	<5.0	9404318	<5.0	5.0	9404318
Dissolved Uranium (U)	ug/L	5	1.1	9404318	0.30	9404318	<0.10	0.10	9404318
Dissolved Vanadium (V)	ug/L	6	<0.50	9404318	<0.50	9404318	<0.50	0.50	9404318
Dissolved Zinc (Zn)	ug/L	30	22	9404318	<5.0	9404318	6.4	5.0	9404318

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
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Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			ZEZ289		
Sampling Date			2024/05/16		
COC Number			990794-01-01		
	UNITS	Criteria	DUP1	RDL	QC Batch
Calculated Parameters					
Anion Sum	me/L	-	8.24	N/A	9399778
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	230	1.0	9401497
Calculated TDS	mg/L	-	450	1.0	9399786
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	2.7	1.0	9401497
Cation Sum	me/L	-	8.58	N/A	9399778
Hardness (CaCO3)	mg/L	-	190	1.0	9401499
Ion Balance (% Difference)	%	-	1.97	N/A	9399787
Langelier Index (@ 20C)	N/A	-	0.526		9399783
Langelier Index (@ 4C)	N/A	-	0.278		9399784
Saturation pH (@ 20C)	N/A	-	7.57		9399783
Saturation pH (@ 4C)	N/A	-	7.82		9399784
Inorganics					
Total Ammonia-N	mg/L	-	<0.050	0.050	9405828
Conductivity	umho/cm	-	850	1.0	9402437
Dissolved Organic Carbon	mg/L	-	0.50	0.40	9402788
Orthophosphate (P)	mg/L	-	<0.010	0.010	9402465
pH	pH	6.5:8.5	8.10		9402438
Dissolved Sulphate (SO4)	mg/L	-	5.2	1.0	9402464
Alkalinity (Total as CaCO3)	mg/L	-	230	1.0	9402436
Dissolved Chloride (Cl-)	mg/L	-	120	1.0	9402463
Nitrite (N)	mg/L	-	<0.010	0.010	9402473
Nitrate (N)	mg/L	-	<0.10	0.10	9402473
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9402473
Metals					
Dissolved Aluminum (Al)	ug/L	-	<4.9	4.9	9404318
Dissolved Antimony (Sb)	ug/L	20	<0.50	0.50	9404318
Dissolved Arsenic (As)	ug/L	100	<1.0	1.0	9404318
Dissolved Barium (Ba)	ug/L	-	200	2.0	9404318

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
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RDL = Reportable Detection Limit
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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			ZEZ289		
Sampling Date			2024/05/16		
COC Number			990794-01-01		
	UNITS	Criteria	DUP1	RDL	QC Batch
Dissolved Beryllium (Be)	ug/L	11	<0.40	0.40	9404318
Dissolved Boron (B)	ug/L	200	**750**	10	9404318
Dissolved Cadmium (Cd)	ug/L	0.2	<0.090	0.090	9404318
Dissolved Calcium (Ca)	ug/L	-	33000	200	9404318
Dissolved Chromium (Cr)	ug/L	-	<5.0	5.0	9404318
Dissolved Cobalt (Co)	ug/L	0.9	<0.50	0.50	9404318
Dissolved Copper (Cu)	ug/L	5	<0.90	0.90	9404318
Dissolved Iron (Fe)	ug/L	300	<100	100	9404318
Dissolved Lead (Pb)	ug/L	5	<0.50	0.50	9404318
Dissolved Magnesium (Mg)	ug/L	-	26000	50	9404318
Dissolved Manganese (Mn)	ug/L	-	6.6	2.0	9404318
Dissolved Molybdenum (Mo)	ug/L	40	<0.50	0.50	9404318
Dissolved Nickel (Ni)	ug/L	25	<1.0	1.0	9404318
Dissolved Phosphorus (P)	ug/L	-	<100	100	9404318
Dissolved Potassium (K)	ug/L	-	7100	200	9404318
Dissolved Selenium (Se)	ug/L	100	<2.0	2.0	9404318
Dissolved Silicon (Si)	ug/L	-	6100	50	9404318
Dissolved Silver (Ag)	ug/L	0.1	<0.090	0.090	9404318
Dissolved Sodium (Na)	ug/L	-	110000	100	9404318
Dissolved Strontium (Sr)	ug/L	-	2200	1.0	9404318
Dissolved Thallium (Tl)	ug/L	0.3	<0.050	0.050	9404318
Dissolved Titanium (Ti)	ug/L	-	<5.0	5.0	9404318
Dissolved Uranium (U)	ug/L	5	<0.10	0.10	9404318
Dissolved Vanadium (V)	ug/L	6	<0.50	0.50	9404318
Dissolved Zinc (Zn)	ug/L	30	5.6	5.0	9404318

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZEZ286		ZEZ287	ZEZ288	ZEZ289		
Sampling Date		2024/05/16 14:00		2024/05/16 14:10	2024/05/16 09:05	2024/05/16		
COC Number		990794-01-01		990794-01-01	990794-01-01	990794-01-01		
	UNITS	DW1	QC Batch	DW2	DW3	DUP1	RDL	QC Batch
Inorganics								
Colour	TCU	<2	9402642	2	<2	<2	2	9402642
Fluoride (F-)	mg/L	<0.10	9402431	<0.10	0.76	0.72	0.10	9402431
Tannins & Lignins	mg/L	<0.2	9403237	<0.2	<0.2	<0.2	0.2	9403237
Turbidity	NTU	0.5	9401084	0.2	0.4	0.3	0.1	9401958

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

TEST SUMMARY

Bureau Veritas ID: ZEZ286
Sample ID: DW1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402436	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402463	N/A	2024/05/24	Geetee Noorzaad
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402437	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402707	N/A	2024/05/21	Gyulshen Idriz
Fluoride	ISE	9402431	2024/05/18	2024/05/23	Surinder Rai
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Ion Balance (% Difference)	CALC	9399787	N/A	2024/05/24	Automated Statchk
Anion and Cation Sum	CALC	9399778	N/A	2024/05/24	Automated Statchk
Total Ammonia-N	LACH/NH4	9405828	N/A	2024/05/22	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402473	N/A	2024/05/22	Vidhi Khatri
pH	AT	9402438	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402465	N/A	2024/05/21	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9399783	N/A	2024/05/24	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9399784	N/A	2024/05/24	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9402464	N/A	2024/05/24	Geetee Noorzaad
Tannins & Lignins	SPEC	9403237	N/A	2024/05/21	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk
Turbidity	AT	9401084	N/A	2024/05/18	Kien Tran

Bureau Veritas ID: ZEZ287
Sample ID: DW2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402436	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402463	N/A	2024/05/24	Geetee Noorzaad
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402437	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402431	2024/05/18	2024/05/23	Surinder Rai
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Ion Balance (% Difference)	CALC	9399787	N/A	2024/05/24	Automated Statchk
Anion and Cation Sum	CALC	9399778	N/A	2024/05/24	Automated Statchk
Total Ammonia-N	LACH/NH4	9404672	N/A	2024/05/23	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402435	N/A	2024/05/24	Jinal Chavda
pH	AT	9402438	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402465	N/A	2024/05/21	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9399783	N/A	2024/05/24	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9399784	N/A	2024/05/24	Automated Statchk

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

TEST SUMMARY

Bureau Veritas ID: ZEZ287
Sample ID: DW2
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	SKAL	9402464	N/A	2024/05/24	Geetee Noorzaad
Tannins & Lignins	SPEC	9403237	N/A	2024/05/21	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk
Turbidity	AT	9401958	N/A	2024/05/18	Kien Tran

Bureau Veritas ID: ZEZ288
Sample ID: DW3
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402436	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402463	N/A	2024/05/24	Geetee Noorzaad
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402437	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402789	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402431	2024/05/18	2024/05/23	Surinder Rai
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Ion Balance (% Difference)	CALC	9399787	N/A	2024/05/24	Automated Statchk
Anion and Cation Sum	CALC	9399778	N/A	2024/05/24	Automated Statchk
Total Ammonia-N	LACH/NH4	9405828	N/A	2024/05/22	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402435	N/A	2024/05/24	Jinal Chavda
pH	AT	9402438	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402465	N/A	2024/05/21	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9399783	N/A	2024/05/24	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9399784	N/A	2024/05/24	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9402464	N/A	2024/05/24	Geetee Noorzaad
Tannins & Lignins	SPEC	9403237	N/A	2024/05/21	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk
Turbidity	AT	9401958	N/A	2024/05/18	Kien Tran

Bureau Veritas ID: ZEZ289
Sample ID: DUP1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9402436	N/A	2024/05/23	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9401497	N/A	2024/05/24	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9402463	N/A	2024/05/24	Geetee Noorzaad
Colour	SPEC	9402642	N/A	2024/05/21	Gyulshen Idriz
Conductivity	AT	9402437	N/A	2024/05/23	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9402788	N/A	2024/05/22	Gyulshen Idriz
Fluoride	ISE	9402431	2024/05/18	2024/05/23	Surinder Rai

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

TEST SUMMARY

Bureau Veritas ID: ZEZ289
Sample ID: DUP1
Matrix: Water

Collected: 2024/05/16
Shipped:
Received: 2024/05/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)		9401499	N/A	2024/05/24	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9404318	N/A	2024/05/23	Prempal Bhatti
Ion Balance (% Difference)	CALC	9399787	N/A	2024/05/24	Automated Statchk
Anion and Cation Sum	CALC	9399778	N/A	2024/05/24	Automated Statchk
Total Ammonia-N	LACH/NH4	9405828	N/A	2024/05/22	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9402473	N/A	2024/05/23	Vidhi Khatri
pH	AT	9402438	2024/05/18	2024/05/23	Nachiketa Gohil
Orthophosphate	KONE	9402465	N/A	2024/05/21	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9399783	N/A	2024/05/24	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9399784	N/A	2024/05/24	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9402464	N/A	2024/05/24	Geetee Noorzaad
Tannins & Lignins	SPEC	9403237	N/A	2024/05/21	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9399786	N/A	2024/05/24	Automated Statchk
Turbidity	AT	9401958	N/A	2024/05/18	Kien Tran

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	8.3°C

Results relate only to the items tested.

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9401084	KIT	Spiked Blank	Turbidity	2024/05/17		99	%	80 - 120
9401084	KIT	Method Blank	Turbidity	2024/05/17	<0.1		NTU	
9401084	KIT	RPD	Turbidity	2024/05/17	11		%	20
9401958	KIT	Spiked Blank	Turbidity	2024/05/18		100	%	80 - 120
9401958	KIT	Method Blank	Turbidity	2024/05/18	<0.1		NTU	
9401958	KIT	RPD	Turbidity	2024/05/18	15		%	20
9402431	SAU	Matrix Spike	Fluoride (F-)	2024/05/23		102	%	80 - 120
9402431	SAU	Spiked Blank	Fluoride (F-)	2024/05/23		101	%	80 - 120
9402431	SAU	Method Blank	Fluoride (F-)	2024/05/23	<0.10		mg/L	
9402431	SAU	RPD	Fluoride (F-)	2024/05/23	7.1		%	20
9402435	J1C	Matrix Spike	Nitrite (N)	2024/05/24		96	%	80 - 120
			Nitrate (N)	2024/05/24		83	%	80 - 120
9402435	J1C	Spiked Blank	Nitrite (N)	2024/05/24		100	%	80 - 120
			Nitrate (N)	2024/05/24		87	%	80 - 120
9402435	J1C	Method Blank	Nitrite (N)	2024/05/24	<0.010		mg/L	
			Nitrate (N)	2024/05/24	<0.10		mg/L	
9402435	J1C	RPD	Nitrite (N)	2024/05/24	NC		%	20
			Nitrate (N)	2024/05/24	NC		%	20
9402436	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/05/23		96	%	85 - 115
9402436	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/05/23	<1.0		mg/L	
9402436	NGI	RPD	Alkalinity (Total as CaCO3)	2024/05/23	0.81		%	20
9402437	NGI	Spiked Blank	Conductivity	2024/05/23		100	%	85 - 115
9402437	NGI	Method Blank	Conductivity	2024/05/23	<1.0		umho/cm	
9402437	NGI	RPD	Conductivity	2024/05/23	0.14		%	10
9402438	NGI	Spiked Blank	pH	2024/05/23		102	%	98 - 103
9402438	NGI	RPD	pH	2024/05/23	0.13		%	N/A
9402463	GNO	Matrix Spike	Dissolved Chloride (Cl-)	2024/05/24		101	%	80 - 120
9402463	GNO	Spiked Blank	Dissolved Chloride (Cl-)	2024/05/24		102	%	80 - 120
9402463	GNO	Method Blank	Dissolved Chloride (Cl-)	2024/05/24	<1.0		mg/L	
9402463	GNO	RPD	Dissolved Chloride (Cl-)	2024/05/24	NC		%	20
9402464	GNO	Matrix Spike	Dissolved Sulphate (SO4)	2024/05/24		103	%	75 - 125
9402464	GNO	Spiked Blank	Dissolved Sulphate (SO4)	2024/05/24		98	%	80 - 120
9402464	GNO	Method Blank	Dissolved Sulphate (SO4)	2024/05/24	<1.0		mg/L	
9402464	GNO	RPD	Dissolved Sulphate (SO4)	2024/05/24	6.1		%	20
9402465	ADB	Matrix Spike	Orthophosphate (P)	2024/05/21		92	%	75 - 125
9402465	ADB	Spiked Blank	Orthophosphate (P)	2024/05/21		91	%	80 - 120
9402465	ADB	Method Blank	Orthophosphate (P)	2024/05/21	<0.010		mg/L	
9402465	ADB	RPD	Orthophosphate (P)	2024/05/21	NC		%	20
9402473	VKH	Matrix Spike	Nitrite (N)	2024/05/22		96	%	80 - 120
			Nitrate (N)	2024/05/22		90	%	80 - 120
9402473	VKH	Spiked Blank	Nitrite (N)	2024/05/22		101	%	80 - 120
			Nitrate (N)	2024/05/22		98	%	80 - 120
9402473	VKH	Method Blank	Nitrite (N)	2024/05/22	<0.010		mg/L	
			Nitrate (N)	2024/05/22	<0.10		mg/L	
9402473	VKH	RPD	Nitrite (N)	2024/05/22	NC		%	20
			Nitrate (N)	2024/05/22	NC		%	20
9402642	GID	Spiked Blank	Colour	2024/05/21		100	%	80 - 120
9402642	GID	Method Blank	Colour	2024/05/21	<2		TCU	
9402642	GID	RPD	Colour	2024/05/21	0.49		%	25
9402707	GID	Matrix Spike	Dissolved Organic Carbon	2024/05/21		91	%	80 - 120
9402707	GID	Spiked Blank	Dissolved Organic Carbon	2024/05/21		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9402707	GID	Method Blank	Dissolved Organic Carbon	2024/05/21	<0.40		mg/L	
9402707	GID	RPD	Dissolved Organic Carbon	2024/05/21	0.70		%	20
9402788	GID	Matrix Spike	Dissolved Organic Carbon	2024/05/22		92	%	80 - 120
9402788	GID	Spiked Blank	Dissolved Organic Carbon	2024/05/22		98	%	80 - 120
9402788	GID	Method Blank	Dissolved Organic Carbon	2024/05/22	<0.40		mg/L	
9402788	GID	RPD	Dissolved Organic Carbon	2024/05/22	5.2		%	20
9402789	GID	Matrix Spike	Dissolved Organic Carbon	2024/05/22		94	%	80 - 120
9402789	GID	Spiked Blank	Dissolved Organic Carbon	2024/05/22		97	%	80 - 120
9402789	GID	Method Blank	Dissolved Organic Carbon	2024/05/22	<0.40		mg/L	
9402789	GID	RPD	Dissolved Organic Carbon	2024/05/22	8.0		%	20
9403237	VRO	Matrix Spike	Tannins & Lignins	2024/05/21		94	%	80 - 120
9403237	VRO	Spiked Blank	Tannins & Lignins	2024/05/21		96	%	80 - 120
9403237	VRO	Method Blank	Tannins & Lignins	2024/05/21	<0.2		mg/L	
9403237	VRO	RPD	Tannins & Lignins	2024/05/21	NC		%	20
9404318	PBA	Matrix Spike	Dissolved Aluminum (Al)	2024/05/23		99	%	80 - 120
			Dissolved Antimony (Sb)	2024/05/23		111	%	80 - 120
			Dissolved Arsenic (As)	2024/05/23		105	%	80 - 120
			Dissolved Barium (Ba)	2024/05/23		105	%	80 - 120
			Dissolved Beryllium (Be)	2024/05/23		102	%	80 - 120
			Dissolved Boron (B)	2024/05/23		100	%	80 - 120
			Dissolved Cadmium (Cd)	2024/05/23		106	%	80 - 120
			Dissolved Calcium (Ca)	2024/05/23		NC	%	80 - 120
			Dissolved Chromium (Cr)	2024/05/23		103	%	80 - 120
			Dissolved Cobalt (Co)	2024/05/23		102	%	80 - 120
			Dissolved Copper (Cu)	2024/05/23		106	%	80 - 120
			Dissolved Iron (Fe)	2024/05/23		107	%	80 - 120
			Dissolved Lead (Pb)	2024/05/23		101	%	80 - 120
			Dissolved Magnesium (Mg)	2024/05/23		NC	%	80 - 120
			Dissolved Manganese (Mn)	2024/05/23		104	%	80 - 120
			Dissolved Molybdenum (Mo)	2024/05/23		111	%	80 - 120
			Dissolved Nickel (Ni)	2024/05/23		101	%	80 - 120
			Dissolved Phosphorus (P)	2024/05/23		108	%	80 - 120
			Dissolved Potassium (K)	2024/05/23		107	%	80 - 120
			Dissolved Selenium (Se)	2024/05/23		102	%	80 - 120
			Dissolved Silicon (Si)	2024/05/23		101	%	80 - 120
			Dissolved Silver (Ag)	2024/05/23		98	%	80 - 120
			Dissolved Sodium (Na)	2024/05/23		105	%	80 - 120
			Dissolved Strontium (Sr)	2024/05/23		104	%	80 - 120
			Dissolved Thallium (Tl)	2024/05/23		102	%	80 - 120
			Dissolved Titanium (Ti)	2024/05/23		104	%	80 - 120
			Dissolved Uranium (U)	2024/05/23		100	%	80 - 120
			Dissolved Vanadium (V)	2024/05/23		104	%	80 - 120
			Dissolved Zinc (Zn)	2024/05/23		102	%	80 - 120
9404318	PBA	Spiked Blank	Dissolved Aluminum (Al)	2024/05/23		94	%	80 - 120
			Dissolved Antimony (Sb)	2024/05/23		102	%	80 - 120
			Dissolved Arsenic (As)	2024/05/23		98	%	80 - 120
			Dissolved Barium (Ba)	2024/05/23		98	%	80 - 120
			Dissolved Beryllium (Be)	2024/05/23		95	%	80 - 120
			Dissolved Boron (B)	2024/05/23		95	%	80 - 120
			Dissolved Cadmium (Cd)	2024/05/23		99	%	80 - 120
			Dissolved Calcium (Ca)	2024/05/23		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2024/05/23		97	%	80 - 120
			Dissolved Cobalt (Co)	2024/05/23		96	%	80 - 120
			Dissolved Copper (Cu)	2024/05/23		99	%	80 - 120
			Dissolved Iron (Fe)	2024/05/23		100	%	80 - 120
			Dissolved Lead (Pb)	2024/05/23		95	%	80 - 120
			Dissolved Magnesium (Mg)	2024/05/23		99	%	80 - 120
			Dissolved Manganese (Mn)	2024/05/23		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2024/05/23		102	%	80 - 120
			Dissolved Nickel (Ni)	2024/05/23		96	%	80 - 120
			Dissolved Phosphorus (P)	2024/05/23		102	%	80 - 120
			Dissolved Potassium (K)	2024/05/23		101	%	80 - 120
			Dissolved Selenium (Se)	2024/05/23		96	%	80 - 120
			Dissolved Silicon (Si)	2024/05/23		97	%	80 - 120
			Dissolved Silver (Ag)	2024/05/23		99	%	80 - 120
			Dissolved Sodium (Na)	2024/05/23		99	%	80 - 120
			Dissolved Strontium (Sr)	2024/05/23		99	%	80 - 120
			Dissolved Thallium (Tl)	2024/05/23		95	%	80 - 120
			Dissolved Titanium (Ti)	2024/05/23		97	%	80 - 120
			Dissolved Uranium (U)	2024/05/23		94	%	80 - 120
			Dissolved Vanadium (V)	2024/05/23		98	%	80 - 120
			Dissolved Zinc (Zn)	2024/05/23		97	%	80 - 120
9404318	PBA	Method Blank	Dissolved Aluminum (Al)	2024/05/23	<4.9		ug/L	
			Dissolved Antimony (Sb)	2024/05/23	<0.50		ug/L	
			Dissolved Arsenic (As)	2024/05/23	<1.0		ug/L	
			Dissolved Barium (Ba)	2024/05/23	<2.0		ug/L	
			Dissolved Beryllium (Be)	2024/05/23	<0.40		ug/L	
			Dissolved Boron (B)	2024/05/23	<10		ug/L	
			Dissolved Cadmium (Cd)	2024/05/23	<0.090		ug/L	
			Dissolved Calcium (Ca)	2024/05/23	<200		ug/L	
			Dissolved Chromium (Cr)	2024/05/23	<5.0		ug/L	
			Dissolved Cobalt (Co)	2024/05/23	<0.50		ug/L	
			Dissolved Copper (Cu)	2024/05/23	<0.90		ug/L	
			Dissolved Iron (Fe)	2024/05/23	<100		ug/L	
			Dissolved Lead (Pb)	2024/05/23	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2024/05/23	<50		ug/L	
			Dissolved Manganese (Mn)	2024/05/23	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2024/05/23	<0.50		ug/L	
			Dissolved Nickel (Ni)	2024/05/23	<1.0		ug/L	
			Dissolved Phosphorus (P)	2024/05/23	<100		ug/L	
			Dissolved Potassium (K)	2024/05/23	<200		ug/L	
			Dissolved Selenium (Se)	2024/05/23	<2.0		ug/L	
			Dissolved Silicon (Si)	2024/05/23	<50		ug/L	
			Dissolved Silver (Ag)	2024/05/23	<0.090		ug/L	
			Dissolved Sodium (Na)	2024/05/23	<100		ug/L	
			Dissolved Strontium (Sr)	2024/05/23	<1.0		ug/L	
			Dissolved Thallium (Tl)	2024/05/23	<0.050		ug/L	
			Dissolved Titanium (Ti)	2024/05/23	<5.0		ug/L	
			Dissolved Uranium (U)	2024/05/23	<0.10		ug/L	
			Dissolved Vanadium (V)	2024/05/23	<0.50		ug/L	
			Dissolved Zinc (Zn)	2024/05/23	<5.0		ug/L	
9404318	PBA	RPD	Dissolved Calcium (Ca)	2024/05/23	0.82		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Magnesium (Mg)	2024/05/23	0.38		%	20
			Dissolved Phosphorus (P)	2024/05/23	NC		%	20
			Dissolved Potassium (K)	2024/05/23	0.16		%	20
			Dissolved Sodium (Na)	2024/05/23	0.76		%	20
9404672	MJ1	Matrix Spike	Total Ammonia-N	2024/05/23		90	%	75 - 125
9404672	MJ1	Spiked Blank	Total Ammonia-N	2024/05/23		100	%	80 - 120
9404672	MJ1	Method Blank	Total Ammonia-N	2024/05/23	<0.050		mg/L	
9404672	MJ1	RPD	Total Ammonia-N	2024/05/23	0.23		%	20
9405828	MJ1	Matrix Spike	Total Ammonia-N	2024/05/22		91	%	75 - 125
9405828	MJ1	Spiked Blank	Total Ammonia-N	2024/05/22		99	%	80 - 120
9405828	MJ1	Method Blank	Total Ammonia-N	2024/05/22	<0.050		mg/L	
9405828	MJ1	RPD	Total Ammonia-N	2024/05/22	1.1		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C4E9535
Report Date: 2024/05/24

WSP Canada Inc.
Client Project #: CA0023633.8620
Site Location: McCarthy
Sampler Initials: CI

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Exceedance Summary Table – Prov. Water Quality Obj.

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
DW1	ZEZ286-02	Dissolved Copper (Cu)	5	26	0.90	ug/L
DW3	ZEZ288-02	Dissolved Boron (B)	200	750	10	ug/L
DUP1	ZEZ289-02	Dissolved Boron (B)	200	750	10	ug/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: CA0023633.8620
Your C.O.C. #: C#1017697-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/10/31
Report #: R8384613
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4X3419
Received: 2024/10/23, 12:00

Sample Matrix: Water
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	4	N/A	2024/10/27	CAM SOP-00448	SM 24 2320 B m
Alkalinity	11	N/A	2024/10/28	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2024/10/28	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	11	N/A	2024/10/29	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	15	N/A	2024/10/28	CAM SOP-00463	SM 24 4500-Cl E m
Colour	15	N/A	2024/10/28	CAM SOP-00412	SM 24 2120C m
Conductivity	11	N/A	2024/10/28	CAM SOP-00414	SM 24 2510 m
Conductivity	4	N/A	2024/10/29	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1)	7	N/A	2024/10/26	CAM SOP-00446	SM 24 5310 B m
Dissolved Organic Carbon (DOC) (1)	8	N/A	2024/10/28	CAM SOP-00446	SM 24 5310 B m
Fluoride	4	2024/10/24	2024/10/27	CAM SOP-00449	SM 24 4500-F C m
Fluoride	11	2024/10/25	2024/10/28	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	15	N/A	2024/10/30	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	8	N/A	2024/10/29	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	7	N/A	2024/10/30	CAM SOP-00447	EPA 6020B m
Total Ammonia-N	15	N/A	2024/10/28	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	15	N/A	2024/10/25	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (3)	4	2024/10/24	2024/10/27	CAM SOP-00413	SM 24th - 4500H+ B
pH (3)	11	2024/10/25	2024/10/28	CAM SOP-00413	SM 24th - 4500H+ B
Orthophosphate	15	N/A	2024/10/25	CAM SOP-00461	SM 24 4500-P E
Sulphate by Automated Turbidimetry	15	N/A	2024/10/28	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids (TDS calc)	15	N/A	2024/10/30		Auto Calc

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are

Your Project #: CA0023633.8620
Your C.O.C. #: C#1017697-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/10/31
Report #: R8384613
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4X3419
Received: 2024/10/23, 12:00

reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(3) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ankita Bhalla, Project Manager
Email: Ankita.Bhalla@bureauveritas.com
Phone# (905) 817-5700
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4X3419
Report Date: 2024/10/31

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ03			AGSQ04		
Sampling Date			2024/10/22 11:40			2024/10/22 11:30		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	AM 1B	RDL	QC Batch	AMX-R	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	240	1.0	9722234	4.0	1.0	9722234
Calculated TDS	mg/L	-	310	1.0	9721490	8700	1.0	9721490
Hardness (CaCO3)	mg/L	-	270	1.0	9721488	3000	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-	0.10	0.050	9726353	5.2	0.050	9726353
Colour	TCU	-	<2	2	9723545	<2	2	9723545
Conductivity	umho/cm	-	530	1.0	9723585	16000	1.0	9725122
Fluoride (F-)	mg/L	-	0.22	0.10	9723588	0.67	0.10	9725117
Dissolved Organic Carbon	mg/L	-	0.74	0.40	9726150	1.7	0.40	9727148
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	8.05		9723579	**5.53**		9725118
Dissolved Sulphate (SO4)	mg/L	-	41	1.0	9724528	<1.0	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	240	1.0	9723584	4.0	1.0	9725050
Dissolved Chloride (Cl-)	mg/L	-	1.6	1.0	9724516	5600	50	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9723648	0.035	0.010	9725022
Nitrate (N)	mg/L	-	<0.10	0.10	9723648	0.55	0.10	9725022
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9723648	0.59	0.10	9725022

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4X3419
Report Date: 2024/10/31

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ05			AGSQ05		
Sampling Date			2024/10/22 15:45			2024/10/22 15:45		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	TW1-1	RDL	QC Batch	TW1-1 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	300	1.0	9722234			
Calculated TDS	mg/L	-	770	1.0	9721490			
Hardness (CaCO3)	mg/L	-	410	1.0	9721488			
Inorganics								
Total Ammonia-N	mg/L	-	0.56	0.050	9726353	0.56	0.050	9726353
Colour	TCU	-	2	2	9727268	<2	2	9727268
Conductivity	umho/cm	-	1400	1.0	9725122			
Fluoride (F-)	mg/L	-	0.49	0.10	9725117			
Dissolved Organic Carbon	mg/L	-	1.8	0.40	9726150			
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526			
pH	pH	6.5:8.5	7.75		9725118			
Dissolved Sulphate (SO4)	mg/L	-	37	1.0	9724528			
Alkalinity (Total as CaCO3)	mg/L	-	300	1.0	9725050			
Dissolved Chloride (Cl-)	mg/L	-	250	2.0	9724516			
Nitrite (N)	mg/L	-	0.017	0.010	9725022			
Nitrate (N)	mg/L	-	<0.10	0.10	9725022			
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
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Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ06			AGSQ06		
Sampling Date			2024/10/22 11:00			2024/10/22 11:00		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	BORED	RDL	QC Batch	BORED Lab-Dup	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	270	1.0	9722234			
Calculated TDS	mg/L	-	350	1.0	9721490			
Hardness (CaCO3)	mg/L	-	290	1.0	9721488			
Inorganics								
Total Ammonia-N	mg/L	-	0.078	0.050	9726353			
Colour	TCU	-	<2	2	9723545	<2	2	9723545
Conductivity	umho/cm	-	570	1.0	9723585			
Fluoride (F-)	mg/L	-	0.12	0.10	9723588			
Dissolved Organic Carbon	mg/L	-	1.4	0.40	9726150			
Orthophosphate (P)	mg/L	-	0.016	0.010	9724526	0.015	0.010	9724526
pH	pH	6.5:8.5	8.26		9723579			
Dissolved Sulphate (SO4)	mg/L	-	31	1.0	9724528	34	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	280	1.0	9723584			
Dissolved Chloride (Cl-)	mg/L	-	2.1	1.0	9724516	2.3	1.0	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9723648			
Nitrate (N)	mg/L	-	0.34	0.10	9723648			
Nitrate + Nitrite (N)	mg/L	-	0.34	0.10	9723648			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
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WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ07			AGSQ08		
Sampling Date			2024/10/22 11:45			2024/10/22 11:43		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	OW4-1	RDL	QC Batch	OW4-2	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	210	1.0	9722234	250	1.0	9722234
Calculated TDS	mg/L	-	730	1.0	9721490	900	1.0	9721490
Hardness (CaCO3)	mg/L	-	170	1.0	9721488	250	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-	0.75	0.050	9726353	1.2	0.050	9726353
Colour	TCU	-	<2	2	9727268	<2	2	9727268
Conductivity	umho/cm	-	1400	1.0	9725122	1700	1.0	9725122
Fluoride (F-)	mg/L	-	0.99	0.10	9725117	0.93	0.10	9725117
Dissolved Organic Carbon	mg/L	-	1.5	0.40	9726150	1.2	0.40	9727148
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	7.93		9725118	7.87		9725118
Dissolved Sulphate (SO4)	mg/L	-	7.6	1.0	9724528	<1.0	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	210	1.0	9725050	250	1.0	9725050
Dissolved Chloride (Cl-)	mg/L	-	280	2.0	9724516	370	3.0	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9725022	<0.010	0.010	9725022
Nitrate (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Report Date: 2024/10/31

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ08			AGSQ09		
Sampling Date			2024/10/22 11:43			2024/10/22 13:15		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	OW4-2 Lab-Dup	RDL	QC Batch	OW5-1	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-				320	1.0	9722234
Calculated TDS	mg/L	-				430	1.0	9721490
Hardness (CaCO3)	mg/L	-				280	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-				0.56	0.050	9726353
Colour	TCU	-				<2	2	9723545
Conductivity	umho/cm	-	1700	1.0	9725122	720	1.0	9723585
Fluoride (F-)	mg/L	-	0.91	0.10	9725117	0.59	0.10	9723588
Dissolved Organic Carbon	mg/L	-				1.5	0.40	9726150
Orthophosphate (P)	mg/L	-				<0.010	0.010	9724526
pH	pH	6.5:8.5	7.89		9725118	8.08		9723579
Dissolved Sulphate (SO4)	mg/L	-				47	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	250	1.0	9725050	320	1.0	9723584
Dissolved Chloride (Cl-)	mg/L	-				20	1.0	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9725022	0.132	0.010	9723648
Nitrate (N)	mg/L	-	<0.10	0.10	9725022	0.55	0.10	9723648
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022	0.68	0.10	9723648

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
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RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ10		AGSQ11		
Sampling Date			2024/10/22 13:30		2024/10/22 13:15		
COC Number			C#1017697-01-01		C#1017697-01-01		
	UNITS	Criteria	OW5-2	QC Batch	OW5-3	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	110	9722234	100	1.0	9722234
Calculated TDS	mg/L	-	17000	9721490	15000	1.0	9721490
Hardness (CaCO3)	mg/L	-	6100	9721488	5800	1.0	9721488
Inorganics							
Total Ammonia-N	mg/L	-	9.1	9726353	8.4	0.050	9726353
Colour	TCU	-	32	9723545	13	2	9723545
Conductivity	umho/cm	-	27000	9725122	25000	1.0	9725122
Fluoride (F-)	mg/L	-	0.44	9725117	0.40	0.10	9725117
Dissolved Organic Carbon	mg/L	-	0.62	9727147	0.99	0.40	9727148
Orthophosphate (P)	mg/L	-	<0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	7.38	9725118	7.21		9725118
Dissolved Sulphate (SO4)	mg/L	-	<1.0	9724528	1.8	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	110	9725050	100	1.0	9725050
Dissolved Chloride (Cl-)	mg/L	-	11000	9724516	9700	100	9724516
Nitrite (N)	mg/L	-	<0.010	9725022	<0.010	0.010	9725022
Nitrate (N)	mg/L	-	<0.10	9725022	0.46	0.10	9725022
Nitrate + Nitrite (N)	mg/L	-	<0.10	9725022	0.46	0.10	9725022

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
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Bureau Veritas Job #: C4X3419
Report Date: 2024/10/31

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ12			AGSQ13		
Sampling Date			2024/10/22 11:20			2024/10/22 14:45		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	OW6-2	RDL	QC Batch	OW7-1	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	160	1.0	9722234	49	1.0	9722234
Calculated TDS	mg/L	-	4000	1.0	9721490	7100	1.0	9721490
Hardness (CaCO3)	mg/L	-	1700	1.0	9721488	3100	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-	1.7	0.050	9726353	4.5	0.050	9726353
Colour	TCU	-	<2	2	9727268	<2	2	9723545
Conductivity	umho/cm	-	6500	1.0	9725122	12000	1.0	9723585
Fluoride (F-)	mg/L	-	0.99	0.10	9725117	1.2	0.10	9723588
Dissolved Organic Carbon	mg/L	-	0.48	0.40	9726150	1.1	0.40	9727148
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	7.66		9725118	6.64		9723579
Dissolved Sulphate (SO4)	mg/L	-	1000	5.0	9724528	64	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	160	1.0	9725050	49	1.0	9723584
Dissolved Chloride (Cl-)	mg/L	-	1500	20	9724516	3900	40	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9725022	0.017	0.010	9723648
Nitrate (N)	mg/L	-	<0.10	0.10	9725022	0.31	0.10	9723648
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022	0.33	0.10	9723648

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
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RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ14			AGSQ15		
Sampling Date			2024/10/22 14:45			2024/10/22 16:00		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	OW7-2	RDL	QC Batch	OW8-1	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	170	1.0	9722234	270	1.0	9722234
Calculated TDS	mg/L	-	14000	1.0	9721490	1200	1.0	9721490
Hardness (CaCO3)	mg/L	-	6600	1.0	9721488	670	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-	4.1	0.050	9726353	0.76	0.050	9726353
Colour	TCU	-	16	2	9727268	<2	2	9723545
Conductivity	umho/cm	-	22000	1.0	9725122	2500	1.0	9725122
Fluoride (F-)	mg/L	-	0.91	0.10	9725117	0.60	0.10	9725117
Dissolved Organic Carbon	mg/L	-	1.0	0.40	9727148	1.5	0.40	9727149
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	7.30		9725118	7.54		9725118
Dissolved Sulphate (SO4)	mg/L	-	28	1.0	9724528	39	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	170	1.0	9725050	270	1.0	9725050
Dissolved Chloride (Cl-)	mg/L	-	8000	100	9724516	610	8.0	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9725022	<0.010	0.010	9725022
Nitrate (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4X3419
Report Date: 2024/10/31

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID			AGSQ16			AGSQ17		
Sampling Date			2024/10/22			2024/10/22		
COC Number			C#1017697-01-01			C#1017697-01-01		
	UNITS	Criteria	DUP 2	RDL	QC Batch	DUP 4	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	160	1.0	9722234	300	1.0	9722234
Calculated TDS	mg/L	-	4000	1.0	9721490	750	1.0	9721490
Hardness (CaCO3)	mg/L	-	1600	1.0	9721488	390	1.0	9721488
Inorganics								
Total Ammonia-N	mg/L	-	1.7	0.050	9726353	0.56	0.050	9726353
Colour	TCU	-	<2	2	9727268	<2	2	9723545
Conductivity	umho/cm	-	6500	1.0	9725122	1400	1.0	9725122
Fluoride (F-)	mg/L	-	0.99	0.10	9725117	0.50	0.10	9725117
Dissolved Organic Carbon	mg/L	-	0.50	0.40	9726150	1.8	0.40	9727148
Orthophosphate (P)	mg/L	-	<0.010	0.010	9724526	<0.010	0.010	9724526
pH	pH	6.5:8.5	7.66		9725118	7.79		9725118
Dissolved Sulphate (SO4)	mg/L	-	1000	5.0	9724528	37	1.0	9724528
Alkalinity (Total as CaCO3)	mg/L	-	160	1.0	9725050	300	1.0	9725050
Dissolved Chloride (Cl-)	mg/L	-	1500	20	9724516	250	2.0	9724516
Nitrite (N)	mg/L	-	<0.010	0.010	9725022	0.020	0.010	9725022
Nitrate (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022
Nitrate + Nitrite (N)	mg/L	-	<0.10	0.10	9725022	<0.10	0.10	9725022

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		AGSQ03		AGSQ04		AGSQ05	AGSQ06		
Sampling Date		2024/10/22 11:40		2024/10/22 11:30		2024/10/22 15:45	2024/10/22 11:00		
COC Number		C#1017697-01-01		C#1017697-01-01		C#1017697-01-01	C#1017697-01-01		
	UNITS	AM 1B	RDL	AMX-R	RDL	TW1-1	BORED	RDL	QC Batch
Metals									
Dissolved Calcium (Ca)	ug/L	55000	200	580000	2000	94000	67000	200	9723564
Dissolved Magnesium (Mg)	ug/L	34000	50	380000	250	43000	29000	50	9723564
Dissolved Phosphorus (P)	ug/L	<100	100	<500	500	<100	1300	100	9723564
Dissolved Potassium (K)	ug/L	2400	200	40000	1000	7600	6000	200	9723564
Dissolved Sodium (Na)	ug/L	6400	100	2100000	500	150000	24000	100	9723564

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		AGSQ07	AGSQ08	AGSQ09		AGSQ10		
Sampling Date		2024/10/22 11:45	2024/10/22 11:43	2024/10/22 13:15		2024/10/22 13:30		
COC Number		C#1017697-01-01	C#1017697-01-01	C#1017697-01-01		C#1017697-01-01		
	UNITS	OW4-1	OW4-2	OW5-1	RDL	OW5-2	RDL	QC Batch
Metals								
Dissolved Calcium (Ca)	ug/L	31000	46000	52000	200	1300000	5000	9723564
Dissolved Magnesium (Mg)	ug/L	22000	32000	36000	50	720000	250	9723564
Dissolved Phosphorus (P)	ug/L	<100	<100	<100	100	<500	500	9723564
Dissolved Potassium (K)	ug/L	8400	10000	7900	200	76000	1000	9723564
Dissolved Sodium (Na)	ug/L	240000	270000	60000	100	3900000	1000	9723564

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		AGSQ11		AGSQ12		AGSQ13		AGSQ14		
Sampling Date		2024/10/22 13:15		2024/10/22 11:20		2024/10/22 14:45		2024/10/22 14:45		
COC Number		C#1017697-01-01		C#1017697-01-01		C#1017697-01-01		C#1017697-01-01		
	UNITS	OW5-3	RDL	OW6-2	RDL	OW7-1	RDL	OW7-2	RDL	QC Batch
Metals										
Dissolved Calcium (Ca)	ug/L	1200000	4000	340000	1000	620000	2000	1400000	4000	9723564
Dissolved Magnesium (Mg)	ug/L	680000	250	200000	50	370000	50	760000	250	9723564
Dissolved Phosphorus (P)	ug/L	<500	500	<100	100	<100	100	<500	500	9723564
Dissolved Potassium (K)	ug/L	63000	1000	18000	200	35000	200	48000	1000	9723564
Dissolved Sodium (Na)	ug/L	3500000	1000	800000	500	1900000	500	3700000	1000	9723564

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		AGSQ14		AGSQ15		AGSQ16		AGSQ17		
Sampling Date		2024/10/22 14:45		2024/10/22 16:00		2024/10/22		2024/10/22		
COC Number		C#1017697-01-01		C#1017697-01-01		C#1017697-01-01		C#1017697-01-01		
	UNITS	OW7-2 Lab-Dup	RDL	OW8-1	RDL	DUP 2	RDL	DUP 4	RDL	QC Batch
Metals										
Dissolved Calcium (Ca)	ug/L	1400000	4000	190000	200	320000	1000	90000	200	9723564
Dissolved Magnesium (Mg)	ug/L	800000	250	49000	50	200000	50	41000	50	9723564
Dissolved Phosphorus (P)	ug/L	<500	500	<100	100	<100	100	<100	100	9723564
Dissolved Potassium (K)	ug/L	51000	1000	6900	200	19000	200	7400	200	9723564
Dissolved Sodium (Na)	ug/L	3800000	1000	170000	100	750000	500	140000	100	9723564

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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TEST SUMMARY

Bureau Veritas ID: AGSQ03 **Collected:** 2024/10/22
Sample ID: AM 1B **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723648	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ04 **Collected:** 2024/10/22
Sample ID: AMX-R **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ05 **Collected:** 2024/10/22
Sample ID: TW1-1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu

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TEST SUMMARY

Bureau Veritas ID: AGSQ05 **Collected:** 2024/10/22
Sample ID: TW1-1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ05 Dup **Collected:** 2024/10/22
Sample ID: TW1-1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan

Bureau Veritas ID: AGSQ06 **Collected:** 2024/10/22
Sample ID: BORED **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723648	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

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TEST SUMMARY

Bureau Veritas ID: AGSQ06 Dup
Sample ID: BORED
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu

Bureau Veritas ID: AGSQ07
Sample ID: OW4-1
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ08
Sample ID: OW4-2
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu

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TEST SUMMARY

Bureau Veritas ID: AGSQ08 **Collected:** 2024/10/22
Sample ID: OW4-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ08 Dup **Collected:** 2024/10/22
Sample ID: OW4-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil

Bureau Veritas ID: AGSQ09 **Collected:** 2024/10/22
Sample ID: OW5-1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723648	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ10 **Collected:** 2024/10/22
Sample ID: OW5-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727147	N/A	2024/10/28	Gyulshen Idriz

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TEST SUMMARY

Bureau Veritas ID: AGSQ10 **Collected:** 2024/10/22
Sample ID: OW5-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ11 **Collected:** 2024/10/22
Sample ID: OW5-3 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ12 **Collected:** 2024/10/22
Sample ID: OW6-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/30	Thuy Linh Nguyen

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TEST SUMMARY

Bureau Veritas ID: AGSQ12
Sample ID: OW6-2
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ13
Sample ID: OW7-1
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723648	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ14
Sample ID: OW7-2
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil

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TEST SUMMARY

Bureau Veritas ID: AGSQ14 **Collected:** 2024/10/22
Sample ID: OW7-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ14 Dup **Collected:** 2024/10/22
Sample ID: OW7-2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen

Bureau Veritas ID: AGSQ15 **Collected:** 2024/10/22
Sample ID: OW8-1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727149	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ16 **Collected:** 2024/10/22
Sample ID: DUP 2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9727268	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9726150	N/A	2024/10/26	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk

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TEST SUMMARY

Bureau Veritas ID: AGSQ16
Sample ID: DUP 2
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

Bureau Veritas ID: AGSQ17
Sample ID: DUP 4
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9725050	N/A	2024/10/28	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9722234	N/A	2024/10/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9724516	N/A	2024/10/28	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9725122	N/A	2024/10/28	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9727148	N/A	2024/10/28	Gyulshen Idriz
Fluoride	ISE	9725117	2024/10/25	2024/10/28	Nachiketa Gohil
Hardness (calculated as CaCO3)		9721488	N/A	2024/10/30	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723564	N/A	2024/10/29	Thuy Linh Nguyen
Total Ammonia-N	SKAL/NH4	9726353	N/A	2024/10/28	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9725022	N/A	2024/10/25	Chandra Nandlal
pH	AT	9725118	2024/10/25	2024/10/28	Nachiketa Gohil
Orthophosphate	SKAL	9724526	N/A	2024/10/25	Massarat Jan
Sulphate by Automated Turbidimetry	SKAL	9724528	N/A	2024/10/28	Alina Dobreanu
Total Dissolved Solids (TDS calc)	CALC	9721490	N/A	2024/10/30	Automated Statchk

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	8.7°C
Package 2	8.0°C

Sample AGSQ04 [AMX-R] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample AGSQ10 [OW5-2] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample AGSQ11 [OW5-3] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample AGSQ14 [OW7-2] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9723545	GID	Spiked Blank	Colour	2024/10/28		100	%	80 - 120
9723545	GID	Method Blank	Colour	2024/10/28	<2		TCU	
9723545	GID	RPD [AGSQ06-01]	Colour	2024/10/28	NC		%	25
9723564	TLG	Matrix Spike [AGSQ14-03]	Dissolved Calcium (Ca)	2024/10/29		NC (1)	%	80 - 120
			Dissolved Magnesium (Mg)	2024/10/29		NC (1)	%	80 - 120
			Dissolved Phosphorus (P)	2024/10/29		NC (1)	%	80 - 120
			Dissolved Potassium (K)	2024/10/29		NC (1)	%	80 - 120
			Dissolved Sodium (Na)	2024/10/29		NC (1)	%	80 - 120
9723564	TLG	Spiked Blank	Dissolved Calcium (Ca)	2024/10/29		96	%	80 - 120
			Dissolved Magnesium (Mg)	2024/10/29		92	%	80 - 120
			Dissolved Phosphorus (P)	2024/10/29		101	%	80 - 120
			Dissolved Potassium (K)	2024/10/29		93	%	80 - 120
			Dissolved Sodium (Na)	2024/10/29		91	%	80 - 120
9723564	TLG	Method Blank	Dissolved Calcium (Ca)	2024/10/29	<200		ug/L	
			Dissolved Magnesium (Mg)	2024/10/29	<50		ug/L	
			Dissolved Phosphorus (P)	2024/10/29	<100		ug/L	
			Dissolved Potassium (K)	2024/10/29	<200		ug/L	
			Dissolved Sodium (Na)	2024/10/29	<100		ug/L	
9723564	TLG	RPD [AGSQ14-03]	Dissolved Calcium (Ca)	2024/10/29	3.0		%	20
			Dissolved Magnesium (Mg)	2024/10/29	6.0		%	20
			Dissolved Phosphorus (P)	2024/10/29	NC		%	20
			Dissolved Potassium (K)	2024/10/29	5.1		%	20
			Dissolved Sodium (Na)	2024/10/29	3.0		%	20
9723579	NGI	Spiked Blank	pH	2024/10/26		102	%	98 - 103
9723579	NGI	RPD	pH	2024/10/27	0.39		%	N/A
9723584	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/10/27		95	%	85 - 115
9723584	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/10/27	<1.0		mg/L	
9723584	NGI	RPD	Alkalinity (Total as CaCO3)	2024/10/27	1.2		%	20
9723585	NGI	Spiked Blank	Conductivity	2024/10/29		99	%	85 - 115
9723585	NGI	Method Blank	Conductivity	2024/10/29	<1.0		umho/cm	
9723585	NGI	RPD	Conductivity	2024/10/29	0.37		%	10
9723588	NGI	Matrix Spike	Fluoride (F-)	2024/10/27		103	%	80 - 120
9723588	NGI	Spiked Blank	Fluoride (F-)	2024/10/26		108	%	80 - 120
9723588	NGI	Method Blank	Fluoride (F-)	2024/10/27	<0.10		mg/L	
9723588	NGI	RPD	Fluoride (F-)	2024/10/27	NC		%	20
9723648	C_N	Matrix Spike	Nitrite (N)	2024/10/25		111	%	80 - 120
			Nitrate (N)	2024/10/25		96	%	80 - 120
9723648	C_N	Spiked Blank	Nitrite (N)	2024/10/25		104	%	80 - 120
			Nitrate (N)	2024/10/25		95	%	80 - 120
9723648	C_N	Method Blank	Nitrite (N)	2024/10/25	<0.010		mg/L	
			Nitrate (N)	2024/10/25	<0.10		mg/L	
9723648	C_N	RPD	Nitrite (N)	2024/10/25	NC		%	20
			Nitrate (N)	2024/10/25	NC		%	20
9724516	ADB	Matrix Spike [AGSQ06-01]	Dissolved Chloride (Cl-)	2024/10/28		111	%	80 - 120
9724516	ADB	Spiked Blank	Dissolved Chloride (Cl-)	2024/10/28		97	%	80 - 120
9724516	ADB	Method Blank	Dissolved Chloride (Cl-)	2024/10/28	<1.0		mg/L	
9724516	ADB	RPD [AGSQ06-01]	Dissolved Chloride (Cl-)	2024/10/28	8.8		%	20
9724526	MJ1	Matrix Spike [AGSQ06-01]	Orthophosphate (P)	2024/10/25		98	%	75 - 125
9724526	MJ1	Spiked Blank	Orthophosphate (P)	2024/10/25		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9724526	MJ1	Method Blank	Orthophosphate (P)	2024/10/25	<0.010		mg/L	
9724526	MJ1	RPD [AGSQ06-01]	Orthophosphate (P)	2024/10/25	5.3		%	20
9724528	ADB	Matrix Spike [AGSQ06-01]	Dissolved Sulphate (SO4)	2024/10/28		NC	%	75 - 125
9724528	ADB	Spiked Blank	Dissolved Sulphate (SO4)	2024/10/28		94	%	80 - 120
9724528	ADB	Method Blank	Dissolved Sulphate (SO4)	2024/10/28	<1.0		mg/L	
9724528	ADB	RPD [AGSQ06-01]	Dissolved Sulphate (SO4)	2024/10/28	9.8		%	20
9725022	C_N	Matrix Spike [AGSQ08-01]	Nitrite (N)	2024/10/25		112	%	80 - 120
			Nitrate (N)	2024/10/25		93	%	80 - 120
9725022	C_N	Spiked Blank	Nitrite (N)	2024/10/25		104	%	80 - 120
			Nitrate (N)	2024/10/25		92	%	80 - 120
9725022	C_N	Method Blank	Nitrite (N)	2024/10/25	<0.010		mg/L	
			Nitrate (N)	2024/10/25	<0.10		mg/L	
9725022	C_N	RPD [AGSQ08-01]	Nitrite (N)	2024/10/25	NC		%	20
			Nitrate (N)	2024/10/25	NC		%	20
9725050	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/10/28		98	%	85 - 115
9725050	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/10/28	<1.0		mg/L	
9725050	NGI	RPD [AGSQ08-01]	Alkalinity (Total as CaCO3)	2024/10/28	0.27		%	20
9725117	NGI	Matrix Spike [AGSQ08-01]	Fluoride (F-)	2024/10/28		81	%	80 - 120
9725117	NGI	Spiked Blank	Fluoride (F-)	2024/10/28		98	%	80 - 120
9725117	NGI	Method Blank	Fluoride (F-)	2024/10/28	<0.10		mg/L	
9725117	NGI	RPD [AGSQ08-01]	Fluoride (F-)	2024/10/28	1.9		%	20
9725118	NGI	Spiked Blank	pH	2024/10/28		102	%	98 - 103
9725118	NGI	RPD [AGSQ08-01]	pH	2024/10/28	0.21		%	N/A
9725122	NGI	Spiked Blank	Conductivity	2024/10/28		100	%	85 - 115
9725122	NGI	Method Blank	Conductivity	2024/10/28	<1.0		umho/cm	
9725122	NGI	RPD [AGSQ08-01]	Conductivity	2024/10/28	0.59		%	10
9726150	GID	Matrix Spike	Dissolved Organic Carbon	2024/10/26		95	%	80 - 120
9726150	GID	Spiked Blank	Dissolved Organic Carbon	2024/10/26		98	%	80 - 120
9726150	GID	Method Blank	Dissolved Organic Carbon	2024/10/26	<0.40		mg/L	
9726150	GID	RPD	Dissolved Organic Carbon	2024/10/26	0.20		%	20
9726353	MUM	Matrix Spike [AGSQ05-04]	Total Ammonia-N	2024/10/28		95	%	75 - 125
9726353	MUM	Spiked Blank	Total Ammonia-N	2024/10/28		97	%	80 - 120
9726353	MUM	Method Blank	Total Ammonia-N	2024/10/28	<0.050		mg/L	
9726353	MUM	RPD [AGSQ05-04]	Total Ammonia-N	2024/10/28	0.27		%	20
9727147	GID	Matrix Spike	Dissolved Organic Carbon	2024/10/28		95	%	80 - 120
9727147	GID	Spiked Blank	Dissolved Organic Carbon	2024/10/28		96	%	80 - 120
9727147	GID	Method Blank	Dissolved Organic Carbon	2024/10/28	<0.40		mg/L	
9727147	GID	RPD	Dissolved Organic Carbon	2024/10/28	2.8		%	20
9727148	GID	Matrix Spike	Dissolved Organic Carbon	2024/10/28		92	%	80 - 120
9727148	GID	Spiked Blank	Dissolved Organic Carbon	2024/10/28		97	%	80 - 120
9727148	GID	Method Blank	Dissolved Organic Carbon	2024/10/28	<0.40		mg/L	
9727148	GID	RPD	Dissolved Organic Carbon	2024/10/28	7.0		%	20
9727149	GID	Matrix Spike	Dissolved Organic Carbon	2024/10/28		97	%	80 - 120
9727149	GID	Spiked Blank	Dissolved Organic Carbon	2024/10/28		98	%	80 - 120
9727149	GID	Method Blank	Dissolved Organic Carbon	2024/10/28	<0.40		mg/L	
9727149	GID	RPD	Dissolved Organic Carbon	2024/10/28	12		%	20
9727268	GID	Spiked Blank	Colour	2024/10/28		99	%	80 - 120
9727268	GID	Method Blank	Colour	2024/10/28	<2		TCU	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9727268	GID	RPD [AGSQ05-01]	Colour	2024/10/28	11		%	25

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike not calculated. Original sample and matrix spike sample were analyzed at a dilution, due to high target analytes, or sample matrix interference.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Exceedance Summary Table – Prov. Water Quality Obj.

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: CA0023633.8620
Your C.O.C. #: C#1017696-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/10/29
Report #: R8382282
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4X3517
Received: 2024/10/23, 12:00

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	4	N/A	2024/10/27	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2024/10/28	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	4	N/A	2024/10/25	CAM SOP-00463	SM 24 4500-Cl E m
Colour	4	N/A	2024/10/28	CAM SOP-00412	SM 24 2120C m
Conductivity	4	N/A	2024/10/29	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (1)	4	N/A	2024/10/24	CAM SOP-00446	SM 24 5310 B m
Fluoride	4	2024/10/24	2024/10/27	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2024/10/28	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	4	N/A	2024/10/26	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	4	N/A	2024/10/29		
Anion and Cation Sum	4	N/A	2024/10/28		
Total Ammonia-N	4	N/A	2024/10/29	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	4	N/A	2024/10/25	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (3)	4	2024/10/24	2024/10/27	CAM SOP-00413	SM 24th - 4500H+ B
Orthophosphate	4	N/A	2024/10/25	CAM SOP-00461	SM 24 4500-P E
Sat. pH and Langelier Index (@ 20C)	4	N/A	2024/10/29		Auto Calc
Sat. pH and Langelier Index (@ 4C)	4	N/A	2024/10/29		Auto Calc
Sulphate by Automated Turbidimetry	4	N/A	2024/10/28	CAM SOP-00464	SM 24 4500-SO42- E m
Tannins & Lignins	4	N/A	2024/10/24	CAM SOP-00410	SM 24 5550 B m
Total Dissolved Solids (TDS calc)	4	N/A	2024/10/29		Auto Calc
Turbidity	4	N/A	2024/10/24	CAM SOP-00417	SM 24 2130 B

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement

Your Project #: CA0023633.8620
Your C.O.C. #: C#1017696-01-01

Attention: Colin Imrie

WSP Canada Inc.
121 Commerce Park Drive
Unit L
Barrie, ON
CANADA L4N 8X1

Report Date: 2024/10/29
Report #: R8382282
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4X3517
Received: 2024/10/23, 12:00

Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(3) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ankita Bhalla, Project Manager
Email: Ankita.Bhalla@bureauveritas.com
Phone# (905) 817-5700

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Bureau Veritas Job #: C4X3517
Report Date: 2024/10/29

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			AGSV52			AGSV52		
Sampling Date			2024/10/22 13:45			2024/10/22 13:45		
COC Number			C#1017696-01-01			C#1017696-01-01		
	UNITS	Criteria	DW1	RDL	QC Batch	DW1 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Anion Sum	me/L	-	13.6	N/A	9719775			
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	350	1.0	9719147			
Calculated TDS	mg/L	-	740	1.0	9719780			
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	2.0	1.0	9719147			
Cation Sum	me/L	-	14.1	N/A	9719775			
Hardness (CaCO3)	mg/L	-	570	1.0	9720555			
Ion Balance (% Difference)	%	-	1.85	N/A	9719151			
Langelier Index (@ 20C)	N/A	-	1.03		9719777			
Langelier Index (@ 4C)	N/A	-	0.779		9719778			
Saturation pH (@ 20C)	N/A	-	6.75		9719777			
Saturation pH (@ 4C)	N/A	-	6.99		9719778			
Inorganics								
Total Ammonia-N	mg/L	-	<0.050	0.050	9725839			
Conductivity	umho/cm	-	1400	1.0	9723585	1400	1.0	9723585
Dissolved Organic Carbon	mg/L	-	1.3	0.40	9722510			
Orthophosphate (P)	mg/L	-	<0.010	0.010	9723733			
pH	pH	6.5:8.5	7.77		9723579	7.80		9723579
Dissolved Sulphate (SO4)	mg/L	-	35	1.0	9723732			
Alkalinity (Total as CaCO3)	mg/L	-	350	1.0	9723584	350	1.0	9723584
Dissolved Chloride (Cl-)	mg/L	-	210	2.0	9723731			
Nitrite (N)	mg/L	-	<0.010	0.010	9723658			
Nitrate (N)	mg/L	-	0.25	0.10	9723658			
Nitrate + Nitrite (N)	mg/L	-	0.25	0.10	9723658			
Metals								
Dissolved Aluminum (Al)	ug/L	-	<4.9	4.9	9723540			
Dissolved Antimony (Sb)	ug/L	20	<0.50	0.50	9723540			
Dissolved Arsenic (As)	ug/L	100	<1.0	1.0	9723540			
Dissolved Barium (Ba)	ug/L	-	180	2.0	9723540			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999
N/A = Not Applicable

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RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			AGSV52			AGSV52		
Sampling Date			2024/10/22 13:45			2024/10/22 13:45		
COC Number			C#1017696-01-01			C#1017696-01-01		
	UNITS	Criteria	DW1	RDL	QC Batch	DW1 Lab-Dup	RDL	QC Batch
Dissolved Beryllium (Be)	ug/L	11	<0.40	0.40	9723540			
Dissolved Boron (B)	ug/L	200	54	10	9723540			
Dissolved Cadmium (Cd)	ug/L	0.2	<0.090	0.090	9723540			
Dissolved Calcium (Ca)	ug/L	-	160000	200	9723540			
Dissolved Chromium (Cr)	ug/L	-	<5.0	5.0	9723540			
Dissolved Cobalt (Co)	ug/L	0.9	<0.50	0.50	9723540			
Dissolved Copper (Cu)	ug/L	5	**38**	0.90	9723540			
Dissolved Iron (Fe)	ug/L	300	<100	100	9723540			
Dissolved Lead (Pb)	ug/L	5	<0.50	0.50	9723540			
Dissolved Magnesium (Mg)	ug/L	-	39000	50	9723540			
Dissolved Manganese (Mn)	ug/L	-	7.9	2.0	9723540			
Dissolved Molybdenum (Mo)	ug/L	40	<0.50	0.50	9723540			
Dissolved Nickel (Ni)	ug/L	25	<1.0	1.0	9723540			
Dissolved Phosphorus (P)	ug/L	-	<100	100	9723540			
Dissolved Potassium (K)	ug/L	-	2600	200	9723540			
Dissolved Selenium (Se)	ug/L	100	<2.0	2.0	9723540			
Dissolved Silicon (Si)	ug/L	-	9700	50	9723540			
Dissolved Silver (Ag)	ug/L	0.1	<0.090	0.090	9723540			
Dissolved Sodium (Na)	ug/L	-	60000	100	9723540			
Dissolved Strontium (Sr)	ug/L	-	620	1.0	9723540			
Dissolved Thallium (Tl)	ug/L	0.3	<0.050	0.050	9723540			
Dissolved Titanium (Ti)	ug/L	-	<5.0	5.0	9723540			
Dissolved Uranium (U)	ug/L	5	1.4	0.10	9723540			
Dissolved Vanadium (V)	ug/L	6	<0.50	0.50	9723540			
Dissolved Zinc (Zn)	ug/L	30	16	5.0	9723540			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			AGSV53	AGSV54	AGSV55		
Sampling Date			2024/10/22 14:00	2024/10/22 10:20	2024/10/22		
COC Number			C#1017696-01-01	C#1017696-01-01	C#1017696-01-01		
	UNITS	Criteria	DW2	DW3	DUP1	RDL	QC Batch
Calculated Parameters							
Anion Sum	me/L	-	6.90	8.08	8.17	N/A	9719775
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	-	310	230	230	1.0	9719147
Calculated TDS	mg/L	-	410	440	450	1.0	9719780
Carb. Alkalinity (calc. as CaCO3)	mg/L	-	3.1	3.2	3.8	1.0	9719147
Cation Sum	me/L	-	8.87	8.25	8.44	N/A	9719775
Hardness (CaCO3)	mg/L	-	350	170	170	1.0	9720555
Ion Balance (% Difference)	%	-	12.5	1.00	1.59	N/A	9719151
Langelier Index (@ 20C)	N/A	-	1.13	0.573	0.653		9719777
Langelier Index (@ 4C)	N/A	-	0.879	0.325	0.405		9719778
Saturation pH (@ 20C)	N/A	-	6.90	7.60	7.59		9719777
Saturation pH (@ 4C)	N/A	-	7.15	7.85	7.84		9719778
Inorganics							
Total Ammonia-N	mg/L	-	<0.050	0.39	0.40	0.050	9725839
Conductivity	umho/cm	-	650	840	840	1.0	9723585
Dissolved Organic Carbon	mg/L	-	2.1	0.78	0.79	0.40	9722510
Orthophosphate (P)	mg/L	-	0.022	<0.010	<0.010	0.010	9723733
pH	pH	6.5:8.5	8.03	8.18	8.24		9723579
Dissolved Sulphate (SO4)	mg/L	-	14	1.8	1.8	1.0	9723732
Alkalinity (Total as CaCO3)	mg/L	-	310	230	240	1.0	9723584
Dissolved Chloride (Cl-)	mg/L	-	12	120	120	1.0	9723731
Nitrite (N)	mg/L	-	<0.010	<0.010	<0.010	0.010	9723658
Nitrate (N)	mg/L	-	0.16	<0.10	<0.10	0.10	9723658
Nitrate + Nitrite (N)	mg/L	-	0.16	<0.10	<0.10	0.10	9723658
Metals							
Dissolved Aluminum (Al)	ug/L	-	<4.9	<4.9	<4.9	4.9	9723540
Dissolved Antimony (Sb)	ug/L	20	<0.50	<0.50	<0.50	0.50	9723540
Dissolved Arsenic (As)	ug/L	100	<1.0	<1.0	<1.0	1.0	9723540
Dissolved Barium (Ba)	ug/L	-	52	190	190	2.0	9723540
Dissolved Beryllium (Be)	ug/L	11	<0.40	<0.40	<0.40	0.40	9723540

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999
N/A = Not Applicable

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Bureau Veritas Job #: C4X3517
Report Date: 2024/10/29

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID			AGSV53	AGSV54	AGSV55		
Sampling Date			2024/10/22 14:00	2024/10/22 10:20	2024/10/22		
COC Number			C#1017696-01-01	C#1017696-01-01	C#1017696-01-01		
	UNITS	Criteria	DW2	DW3	DUP1	RDL	QC Batch
Dissolved Boron (B)	ug/L	200	35	**820**	**810**	10	9723540
Dissolved Cadmium (Cd)	ug/L	0.2	<0.090	<0.090	<0.090	0.090	9723540
Dissolved Calcium (Ca)	ug/L	-	110000	31000	31000	200	9723540
Dissolved Chromium (Cr)	ug/L	-	<5.0	<5.0	<5.0	5.0	9723540
Dissolved Cobalt (Co)	ug/L	0.9	<0.50	<0.50	<0.50	0.50	9723540
Dissolved Copper (Cu)	ug/L	5	**5.4**	0.90	1.1	0.90	9723540
Dissolved Iron (Fe)	ug/L	300	<100	<100	<100	100	9723540
Dissolved Lead (Pb)	ug/L	5	**5.1**	<0.50	<0.50	0.50	9723540
Dissolved Magnesium (Mg)	ug/L	-	17000	22000	23000	50	9723540
Dissolved Manganese (Mn)	ug/L	-	7.5	5.0	5.2	2.0	9723540
Dissolved Molybdenum (Mo)	ug/L	40	<0.50	<0.50	<0.50	0.50	9723540
Dissolved Nickel (Ni)	ug/L	25	<1.0	<1.0	<1.0	1.0	9723540
Dissolved Phosphorus (P)	ug/L	-	5100	<100	<100	100	9723540
Dissolved Potassium (K)	ug/L	-	6800	7100	7200	200	9723540
Dissolved Selenium (Se)	ug/L	100	<2.0	<2.0	<2.0	2.0	9723540
Dissolved Silicon (Si)	ug/L	-	7200	5200	5300	50	9723540
Dissolved Silver (Ag)	ug/L	0.1	<0.090	<0.090	<0.090	0.090	9723540
Dissolved Sodium (Na)	ug/L	-	40000	110000	110000	100	9723540
Dissolved Strontium (Sr)	ug/L	-	330	2100	2200	1.0	9723540
Dissolved Thallium (Tl)	ug/L	0.3	<0.050	<0.050	<0.050	0.050	9723540
Dissolved Titanium (Ti)	ug/L	-	<5.0	<5.0	<5.0	5.0	9723540
Dissolved Uranium (U)	ug/L	5	0.23	<0.10	<0.10	0.10	9723540
Dissolved Vanadium (V)	ug/L	6	<0.50	<0.50	<0.50	0.50	9723540
Dissolved Zinc (Zn)	ug/L	30	16	**220**	**230**	5.0	9723540

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Provincial Water Quality Objectives
Ref. to MOEE Water Management document dated Feb.1999

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Bureau Veritas Job #: C4X3517
Report Date: 2024/10/29

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AGSV52			AGSV52			AGSV53		
Sampling Date		2024/10/22 13:45			2024/10/22 13:45			2024/10/22 14:00		
COC Number		C#1017696-01-01			C#1017696-01-01			C#1017696-01-01		
	UNITS	DW1	RDL	QC Batch	DW1 Lab-Dup	RDL	QC Batch	DW2	RDL	QC Batch
Inorganics										
Colour	TCU	<2	2	9723545				<2	2	9723545
Fluoride (F-)	mg/L	0.13	0.10	9723588	0.10	0.10	9723588	<0.10	0.10	9723588
Tannins & Lignins	mg/L	<0.2	0.2	9721676	<0.2	0.2	9721676	<0.2	0.2	9721676
Turbidity	NTU	0.3	0.1	9723482				1.6	0.1	9723482

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		AGSV54	AGSV55			AGSV55		
Sampling Date		2024/10/22 10:20	2024/10/22			2024/10/22		
COC Number		C#1017696-01-01	C#1017696-01-01			C#1017696-01-01		
	UNITS	DW3	DUP1	RDL	QC Batch	DUP1 Lab-Dup	RDL	QC Batch
Inorganics								
Colour	TCU	<2	<2	2	9723545			
Fluoride (F-)	mg/L	0.81	0.84	0.10	9723588			
Tannins & Lignins	mg/L	<0.2	<0.2	0.2	9721676			
Turbidity	NTU	<0.1	0.3	0.1	9723482	0.2	0.1	9723482

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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TEST SUMMARY

Bureau Veritas ID: AGSV52 **Collected:** 2024/10/22
Sample ID: DW1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9719147	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9723731	N/A	2024/10/25	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9722510	N/A	2024/10/24	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9720555	N/A	2024/10/28	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723540	N/A	2024/10/26	Thuy Linh Nguyen
Ion Balance (% Difference)	CALC	9719151	N/A	2024/10/29	Automated Statchk
Anion and Cation Sum	CALC	9719775	N/A	2024/10/28	Automated Statchk
Total Ammonia-N	SKAL/NH4	9725839	N/A	2024/10/29	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723658	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9723733	N/A	2024/10/25	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9719777	N/A	2024/10/29	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9719778	N/A	2024/10/29	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9723732	N/A	2024/10/28	Massarat Jan
Tannins & Lignins	SPEC	9721676	N/A	2024/10/24	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9719780	N/A	2024/10/29	Automated Statchk
Turbidity	AT	9723482	N/A	2024/10/24	Kien Tran

Bureau Veritas ID: AGSV52 Dup **Collected:** 2024/10/22
Sample ID: DW1 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Tannins & Lignins	SPEC	9721676	N/A	2024/10/24	Viorica Rotaru

Bureau Veritas ID: AGSV53 **Collected:** 2024/10/22
Sample ID: DW2 **Shipped:**
Matrix: Water **Received:** 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9719147	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9723731	N/A	2024/10/25	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9722510	N/A	2024/10/24	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil

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Bureau Veritas Job #: C4X3517
Report Date: 2024/10/29

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

TEST SUMMARY

Bureau Veritas ID: AGSV53
Sample ID: DW2
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)		9720555	N/A	2024/10/28	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723540	N/A	2024/10/26	Thuy Linh Nguyen
Ion Balance (% Difference)	CALC	9719151	N/A	2024/10/29	Automated Statchk
Anion and Cation Sum	CALC	9719775	N/A	2024/10/28	Automated Statchk
Total Ammonia-N	SKAL/NH4	9725839	N/A	2024/10/29	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723658	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9723733	N/A	2024/10/25	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9719777	N/A	2024/10/29	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9719778	N/A	2024/10/29	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9723732	N/A	2024/10/28	Massarat Jan
Tannins & Lignins	SPEC	9721676	N/A	2024/10/24	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9719780	N/A	2024/10/29	Automated Statchk
Turbidity	AT	9723482	N/A	2024/10/24	Kien Tran

Bureau Veritas ID: AGSV54
Sample ID: DW3
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9719147	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9723731	N/A	2024/10/25	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9722510	N/A	2024/10/24	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9720555	N/A	2024/10/28	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723540	N/A	2024/10/26	Thuy Linh Nguyen
Ion Balance (% Difference)	CALC	9719151	N/A	2024/10/29	Automated Statchk
Anion and Cation Sum	CALC	9719775	N/A	2024/10/28	Automated Statchk
Total Ammonia-N	SKAL/NH4	9725839	N/A	2024/10/29	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723658	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9723733	N/A	2024/10/25	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9719777	N/A	2024/10/29	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9719778	N/A	2024/10/29	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9723732	N/A	2024/10/28	Massarat Jan
Tannins & Lignins	SPEC	9721676	N/A	2024/10/24	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9719780	N/A	2024/10/29	Automated Statchk
Turbidity	AT	9723482	N/A	2024/10/24	Kien Tran

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Bureau Veritas Job #: C4X3517
Report Date: 2024/10/29

WSP Canada Inc.
Client Project #: CA0023633.8620
Sampler Initials: CI

TEST SUMMARY

Bureau Veritas ID: AGSV55
Sample ID: DUP1
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9723584	N/A	2024/10/27	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9719147	N/A	2024/10/28	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9723731	N/A	2024/10/25	Alina Dobreanu
Colour	SPEC	9723545	N/A	2024/10/28	Gyulshen Idriz
Conductivity	AT	9723585	N/A	2024/10/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9722510	N/A	2024/10/24	Gyulshen Idriz
Fluoride	ISE	9723588	2024/10/24	2024/10/27	Nachiketa Gohil
Hardness (calculated as CaCO3)		9720555	N/A	2024/10/28	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	9723540	N/A	2024/10/26	Thuy Linh Nguyen
Ion Balance (% Difference)	CALC	9719151	N/A	2024/10/29	Automated Statchk
Anion and Cation Sum	CALC	9719775	N/A	2024/10/28	Automated Statchk
Total Ammonia-N	SKAL/NH4	9725839	N/A	2024/10/29	Muskan
Nitrate & Nitrite as Nitrogen in Water	LACH	9723658	N/A	2024/10/25	Chandra Nandlal
pH	AT	9723579	2024/10/24	2024/10/27	Nachiketa Gohil
Orthophosphate	SKAL	9723733	N/A	2024/10/25	Alina Dobreanu
Sat. pH and Langelier Index (@ 20C)	CALC	9719777	N/A	2024/10/29	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	9719778	N/A	2024/10/29	Automated Statchk
Sulphate by Automated Turbidimetry	SKAL	9723732	N/A	2024/10/28	Massarat Jan
Tannins & Lignins	SPEC	9721676	N/A	2024/10/24	Viorica Rotaru
Total Dissolved Solids (TDS calc)	CALC	9719780	N/A	2024/10/29	Automated Statchk
Turbidity	AT	9723482	N/A	2024/10/24	Kien Tran

Bureau Veritas ID: AGSV55 Dup
Sample ID: DUP1
Matrix: Water

Collected: 2024/10/22
Shipped:
Received: 2024/10/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	9723482	N/A	2024/10/24	Kien Tran

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.0°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9721676	VRO	Matrix Spike [AGSV52-03]	Tannins & Lignins	2024/10/24		96	%	80 - 120
9721676	VRO	Spiked Blank	Tannins & Lignins	2024/10/24		100	%	80 - 120
9721676	VRO	Method Blank	Tannins & Lignins	2024/10/24	<0.2		mg/L	
9721676	VRO	RPD [AGSV52-03]	Tannins & Lignins	2024/10/24	NC		%	20
9722510	GID	Matrix Spike	Dissolved Organic Carbon	2024/10/24		93	%	80 - 120
9722510	GID	Spiked Blank	Dissolved Organic Carbon	2024/10/24		96	%	80 - 120
9722510	GID	Method Blank	Dissolved Organic Carbon	2024/10/24	<0.40		mg/L	
9722510	GID	RPD	Dissolved Organic Carbon	2024/10/24	3.1		%	20
9723482	KIT	Spiked Blank	Turbidity	2024/10/24		102	%	80 - 120
9723482	KIT	Method Blank	Turbidity	2024/10/24	<0.1		NTU	
9723482	KIT	RPD [AGSV55-01]	Turbidity	2024/10/24	NC		%	20
9723540	TLG	Matrix Spike	Dissolved Aluminum (Al)	2024/10/26		100	%	80 - 120
			Dissolved Antimony (Sb)	2024/10/26		101	%	80 - 120
			Dissolved Arsenic (As)	2024/10/26		97	%	80 - 120
			Dissolved Barium (Ba)	2024/10/26		92	%	80 - 120
			Dissolved Beryllium (Be)	2024/10/26		92	%	80 - 120
			Dissolved Boron (B)	2024/10/26		87	%	80 - 120
			Dissolved Cadmium (Cd)	2024/10/26		93	%	80 - 120
			Dissolved Calcium (Ca)	2024/10/26		NC	%	80 - 120
			Dissolved Chromium (Cr)	2024/10/26		99	%	80 - 120
			Dissolved Cobalt (Co)	2024/10/26		94	%	80 - 120
			Dissolved Copper (Cu)	2024/10/26		98	%	80 - 120
			Dissolved Iron (Fe)	2024/10/26		96	%	80 - 120
			Dissolved Lead (Pb)	2024/10/26		90	%	80 - 120
			Dissolved Magnesium (Mg)	2024/10/26		NC	%	80 - 120
			Dissolved Manganese (Mn)	2024/10/26		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2024/10/26		104	%	80 - 120
			Dissolved Nickel (Ni)	2024/10/26		90	%	80 - 120
			Dissolved Phosphorus (P)	2024/10/26		102	%	80 - 120
			Dissolved Potassium (K)	2024/10/26		NC	%	80 - 120
			Dissolved Selenium (Se)	2024/10/26		93	%	80 - 120
			Dissolved Silicon (Si)	2024/10/26		101	%	80 - 120
			Dissolved Silver (Ag)	2024/10/26		90	%	80 - 120
			Dissolved Sodium (Na)	2024/10/26		NC	%	80 - 120
			Dissolved Strontium (Sr)	2024/10/26		NC	%	80 - 120
			Dissolved Thallium (Tl)	2024/10/26		91	%	80 - 120
			Dissolved Titanium (Ti)	2024/10/26		99	%	80 - 120
			Dissolved Uranium (U)	2024/10/26		96	%	80 - 120
			Dissolved Vanadium (V)	2024/10/26		100	%	80 - 120
			Dissolved Zinc (Zn)	2024/10/26		88	%	80 - 120
9723540	TLG	Spiked Blank	Dissolved Aluminum (Al)	2024/10/26		99	%	80 - 120
			Dissolved Antimony (Sb)	2024/10/26		99	%	80 - 120
			Dissolved Arsenic (As)	2024/10/26		97	%	80 - 120
			Dissolved Barium (Ba)	2024/10/26		97	%	80 - 120
			Dissolved Beryllium (Be)	2024/10/26		96	%	80 - 120
			Dissolved Boron (B)	2024/10/26		92	%	80 - 120
			Dissolved Cadmium (Cd)	2024/10/26		95	%	80 - 120
			Dissolved Calcium (Ca)	2024/10/26		101	%	80 - 120
			Dissolved Chromium (Cr)	2024/10/26		99	%	80 - 120
			Dissolved Cobalt (Co)	2024/10/26		97	%	80 - 120
			Dissolved Copper (Cu)	2024/10/26		97	%	80 - 120
			Dissolved Iron (Fe)	2024/10/26		99	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lead (Pb)	2024/10/26		96	%	80 - 120
			Dissolved Magnesium (Mg)	2024/10/26		97	%	80 - 120
			Dissolved Manganese (Mn)	2024/10/26		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2024/10/26		98	%	80 - 120
			Dissolved Nickel (Ni)	2024/10/26		96	%	80 - 120
			Dissolved Phosphorus (P)	2024/10/26		102	%	80 - 120
			Dissolved Potassium (K)	2024/10/26		99	%	80 - 120
			Dissolved Selenium (Se)	2024/10/26		95	%	80 - 120
			Dissolved Silicon (Si)	2024/10/26		98	%	80 - 120
			Dissolved Silver (Ag)	2024/10/26		93	%	80 - 120
			Dissolved Sodium (Na)	2024/10/26		99	%	80 - 120
			Dissolved Strontium (Sr)	2024/10/26		99	%	80 - 120
			Dissolved Thallium (Tl)	2024/10/26		96	%	80 - 120
			Dissolved Titanium (Ti)	2024/10/26		98	%	80 - 120
			Dissolved Uranium (U)	2024/10/26		97	%	80 - 120
			Dissolved Vanadium (V)	2024/10/26		98	%	80 - 120
			Dissolved Zinc (Zn)	2024/10/26		96	%	80 - 120
9723540	TLG	Method Blank	Dissolved Aluminum (Al)	2024/10/26	<4.9		ug/L	
			Dissolved Antimony (Sb)	2024/10/26	<0.50		ug/L	
			Dissolved Arsenic (As)	2024/10/26	<1.0		ug/L	
			Dissolved Barium (Ba)	2024/10/26	<2.0		ug/L	
			Dissolved Beryllium (Be)	2024/10/26	<0.40		ug/L	
			Dissolved Boron (B)	2024/10/26	<10		ug/L	
			Dissolved Cadmium (Cd)	2024/10/26	<0.090		ug/L	
			Dissolved Calcium (Ca)	2024/10/26	<200		ug/L	
			Dissolved Chromium (Cr)	2024/10/26	<5.0		ug/L	
			Dissolved Cobalt (Co)	2024/10/26	<0.50		ug/L	
			Dissolved Copper (Cu)	2024/10/26	<0.90		ug/L	
			Dissolved Iron (Fe)	2024/10/26	<100		ug/L	
			Dissolved Lead (Pb)	2024/10/26	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2024/10/26	<50		ug/L	
			Dissolved Manganese (Mn)	2024/10/26	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2024/10/26	<0.50		ug/L	
			Dissolved Nickel (Ni)	2024/10/26	<1.0		ug/L	
			Dissolved Phosphorus (P)	2024/10/26	<100		ug/L	
			Dissolved Potassium (K)	2024/10/26	<200		ug/L	
			Dissolved Selenium (Se)	2024/10/26	<2.0		ug/L	
			Dissolved Silicon (Si)	2024/10/26	<50		ug/L	
			Dissolved Silver (Ag)	2024/10/26	<0.090		ug/L	
			Dissolved Sodium (Na)	2024/10/26	<100		ug/L	
			Dissolved Strontium (Sr)	2024/10/26	<1.0		ug/L	
			Dissolved Thallium (Tl)	2024/10/26	<0.050		ug/L	
			Dissolved Titanium (Ti)	2024/10/26	<5.0		ug/L	
			Dissolved Uranium (U)	2024/10/26	<0.10		ug/L	
			Dissolved Vanadium (V)	2024/10/26	<0.50		ug/L	
			Dissolved Zinc (Zn)	2024/10/26	<5.0		ug/L	
9723540	TLG	RPD	Dissolved Antimony (Sb)	2024/10/28	NC		%	20
			Dissolved Arsenic (As)	2024/10/28	NC		%	20
			Dissolved Barium (Ba)	2024/10/28	4.2		%	20
			Dissolved Beryllium (Be)	2024/10/28	NC		%	20
			Dissolved Boron (B)	2024/10/28	1.6		%	20
			Dissolved Cadmium (Cd)	2024/10/28	5.9		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2024/10/28	NC		%	20
			Dissolved Cobalt (Co)	2024/10/28	0.55		%	20
			Dissolved Copper (Cu)	2024/10/28	NC		%	20
			Dissolved Lead (Pb)	2024/10/28	NC		%	20
			Dissolved Molybdenum (Mo)	2024/10/28	3.3		%	20
			Dissolved Nickel (Ni)	2024/10/28	0.40		%	20
			Dissolved Selenium (Se)	2024/10/28	NC		%	20
			Dissolved Silver (Ag)	2024/10/28	NC		%	20
			Dissolved Sodium (Na)	2024/10/28	0.21		%	20
			Dissolved Thallium (Tl)	2024/10/28	6.4		%	20
			Dissolved Uranium (U)	2024/10/28	3.1		%	20
			Dissolved Vanadium (V)	2024/10/28	3.6		%	20
			Dissolved Zinc (Zn)	2024/10/28	NC		%	20
9723545	GID	Spiked Blank	Colour	2024/10/28		100	%	80 - 120
9723545	GID	Method Blank	Colour	2024/10/28	<2		TCU	
9723545	GID	RPD	Colour	2024/10/28	NC		%	25
9723579	NGI	Spiked Blank	pH	2024/10/26		102	%	98 - 103
9723579	NGI	RPD [AGSV52-01]	pH	2024/10/27	0.39		%	N/A
9723584	NGI	Spiked Blank	Alkalinity (Total as CaCO3)	2024/10/27		95	%	85 - 115
9723584	NGI	Method Blank	Alkalinity (Total as CaCO3)	2024/10/27	<1.0		mg/L	
9723584	NGI	RPD [AGSV52-01]	Alkalinity (Total as CaCO3)	2024/10/27	1.2		%	20
9723585	NGI	Spiked Blank	Conductivity	2024/10/29		99	%	85 - 115
9723585	NGI	Method Blank	Conductivity	2024/10/29	<1.0		umho/cm	
9723585	NGI	RPD [AGSV52-01]	Conductivity	2024/10/29	0.37		%	10
9723588	NGI	Matrix Spike [AGSV52-01]	Fluoride (F-)	2024/10/27		103	%	80 - 120
9723588	NGI	Spiked Blank	Fluoride (F-)	2024/10/26		108	%	80 - 120
9723588	NGI	Method Blank	Fluoride (F-)	2024/10/27	<0.10		mg/L	
9723588	NGI	RPD [AGSV52-01]	Fluoride (F-)	2024/10/27	NC		%	20
9723658	C_N	Matrix Spike	Nitrite (N)	2024/10/25		110	%	80 - 120
			Nitrate (N)	2024/10/25		99	%	80 - 120
9723658	C_N	Spiked Blank	Nitrite (N)	2024/10/25		105	%	80 - 120
			Nitrate (N)	2024/10/25		95	%	80 - 120
9723658	C_N	Method Blank	Nitrite (N)	2024/10/25	<0.010		mg/L	
			Nitrate (N)	2024/10/25	<0.10		mg/L	
9723658	C_N	RPD	Nitrite (N)	2024/10/25	NC		%	20
			Nitrate (N)	2024/10/25	NC		%	20
9723731	ADB	Matrix Spike	Dissolved Chloride (Cl-)	2024/10/25		NC	%	80 - 120
9723731	ADB	Spiked Blank	Dissolved Chloride (Cl-)	2024/10/25		104	%	80 - 120
9723731	ADB	Method Blank	Dissolved Chloride (Cl-)	2024/10/25	<1.0		mg/L	
9723731	ADB	RPD	Dissolved Chloride (Cl-)	2024/10/25	2.1		%	20
9723732	MJ1	Matrix Spike	Dissolved Sulphate (SO4)	2024/10/29		NC	%	75 - 125
9723732	MJ1	Spiked Blank	Dissolved Sulphate (SO4)	2024/10/29		102	%	80 - 120
9723732	MJ1	Method Blank	Dissolved Sulphate (SO4)	2024/10/29	<1.0		mg/L	
9723732	MJ1	RPD	Dissolved Sulphate (SO4)	2024/10/29	0.85		%	20
9723733	ADB	Matrix Spike	Orthophosphate (P)	2024/10/25		92	%	75 - 125
9723733	ADB	Spiked Blank	Orthophosphate (P)	2024/10/25		98	%	80 - 120
9723733	ADB	Method Blank	Orthophosphate (P)	2024/10/25	<0.010		mg/L	
9723733	ADB	RPD	Orthophosphate (P)	2024/10/25	NC		%	20
9725839	MUM	Matrix Spike	Total Ammonia-N	2024/10/29		92	%	75 - 125
9725839	MUM	Spiked Blank	Total Ammonia-N	2024/10/29		98	%	80 - 120
9725839	MUM	Method Blank	Total Ammonia-N	2024/10/29	<0.050		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9725839	MUM	RPD	Total Ammonia-N	2024/10/29	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Exceedance Summary Table – Prov. Water Quality Obj.

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
DW1	AGSV52-02	Dissolved Copper (Cu)	5	38	0.90	ug/L
DW2	AGSV53-02	Dissolved Copper (Cu)	5	5.4	0.90	ug/L
DW2	AGSV53-02	Dissolved Lead (Pb)	5	5.1	0.50	ug/L
DW3	AGSV54-02	Dissolved Boron (B)	200	820	10	ug/L
DW3	AGSV54-02	Dissolved Zinc (Zn)	30	220	5.0	ug/L
DUP1	AGSV55-02	Dissolved Boron (B)	200	810	10	ug/L
DUP1	AGSV55-02	Dissolved Zinc (Zn)	30	230	5.0	ug/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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