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SHELL CANADA LIMITED

Quest Carbon Capture and Storage Project

2023 ANNUAL STATUS REPORT

Prepared By:
Shell Canada Limited
Calgary, Alberta

March 31, 2024

The 2023 Annual Status Report addresses the AER application approval referenced in the Carbon Dioxide Disposal Approval No. 11837C the "Approval", issued on May 12th, 2015 to Shell Canada Limited [1]. This report addresses Conditions 10 and 17 of the Approval.

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LIST OF ACRONYMNS USED

AOR .....Area of Review
BCS .....Basal Cambrian Sands
BHP .....Bottom Hole Pressure
CAP .....Community Advisory Panel
CBL-VDL-USIT.....Cement Bond Log
CCS.....Carbon Capture and Storage
DDS .....Digital Data Submission
DH .....Downhole
DHP.....Downhole Pressure
DTS .....Distributed Temperature Sensing
DMW.....Deep Monitoring Well
EMIT.....Electromagnetic Inspection Tool
ERD .....Electrical Resonating Diaphragm
GM.....Gas Migration
GW.....Groundwater
GWW .....Groundwater well
HMP .....Hydrosphere Monitoring Plan
HMU .....Hydrogen Manufacturing Unit
ICT.....Incident Command Team
InSAR.....Interferometric synthetic aperture radar
IW.....Injection Well
LELs .....Lower Explosive Limits
LMV.....Lower Master Valve
LSRTM.....Least Squares Reverse Time Migration
MFC .....Multi-Finger Caliper
MMV .....Measurement, monitoring and verification
MSM .....Microseismic Monitoring
M_w ..... Moment Magnitude
N_2 .....Nitrogen
NRMS .....Normalized Root Mean Square
PNx.....Schlumberger Pulsed Neutron Extreme
RST.....Reservoir saturation tool
SCVF .....Surface Casing Vent Flow
SEIS2D .....2D surface seismic
SEIS3D .....3D surface seismic

SLA .....Sequestration Lease Area
SMA .....Seismicity Monitoring Area
SME .....Subject Matter Expert
THP .....Tubing Head Pressure
TVDSS .....True Vertical Depth sub sea
2DVSP .....Vertical Seismic Profile with 2D shot pattern

1 SPECIFIC REQUIREMENTS

The following Table 1-1 lists the requirements for Annual Reporting as listed in the AER QUEST Project Approval No 11837C [1], and the corresponding Section in this report. It is noted that from January to November 2023, Quest operated under the 2020 MMV Plan and after November 25, 2023, the 2023 MMV Plan was implemented. This report references both plans as both were active at different times within the calendar year.

Table 1-1: Concordance Table

Requirement as listed in the Alberta Energy Regulator (AER) Quest Project Approval No 11837C	**Section**
10) The Approval Holder must provide annual status reports and presentations. The reports must be aligned with the most current MMV plan and submitted to ResourceCompliance@aer.ca. The report must be in metric units and include:	
a) a summary of scheme operations including, but not limited to,	2
i) any new project wells drilled in the reporting period,	2.2
ii) any workovers/treatments done on the injection and monitoring wells including the reasons for and results of the workovers/treatments,	2.4
iii) changes in injection equipment and operations,	2.4
iv) identification of problems, remedial action taken, and impacts on scheme performance.	2.4 4.6
b) complete pressure analysis including but not limited to stabilized shut-in formation pressures and a discussion on how the pressure compares with the formation pressure expected for the cumulative volume of CO_2 injection, along with an updated estimate of what the actual cumulative injection volume will be at the maximum shut-in formation pressure specified in clause 5(a),	3
c) discussion of the overall performance of the scheme, including: how the formation pressure is changing over time; updated geological maps; and updated CO_2 plume extent and pressure distribution models, if needed. The updated models should be based on all new data obtained since the last model run including the cumulative CO_2 injected to the end of the reporting period.	3 3.4
d) a summary of MMV Plan activities, performance and results in the reporting period, including, but not limited to:	4
i) a report on any event that exceeded the approved operating requirements or triggered MMV activities,	4.3 4.4
ii) comparison of measured performance to predictions,	3.3 4.5
iii) summary of operations and maintenance activities conducted,	2.4, 4.1& 4.2

Requirement as listed in the Alberta Energy Regulator (AER) Quest Project Approval No 11837C	Section
iv) details of any performance or Measurement, Monitoring, and Verification (MMV) Plan issues that require attention,	4.6
v) pressure surveys, corrosion protection, fluid analyses, logs and any other data collected that would help in determining the success of the scheme, and	2.4
vi) discussion of the need for changes to the MMV plan.	5.1 & 5.2
e) a table for all wells listed in clause 3(1)(a), showing the following injection data for each month of the reporting period:	3.1
i) mole fraction of the CO_2 and impurities in the injection stream,	3.1
ii) volume of the CO_2 injected at standard conditions,	3.1
iii) formation volume factor of the injected CO_2 stream (not applicable since CO_2 is in dense phase),	N/A
iv) cumulative volume of the injected CO_2 at standard conditions following the commencement of the scheme,	3.1
v) volume of the CO_2 injected at reservoir conditions,	3.1
vi) hours on injection,	3.1
vii) maximum daily injection rate at standard conditions,	3.1
viii) average daily injection rate at standard conditions,	3.1
ix) maximum wellhead injection pressure (MWHIP) and corresponding wellhead injection temperature,	3.1
x) average wellhead injection pressure, corresponding average wellhead injection temperature,	3.1
xi) maximum bottom hole injection pressure (MBHIP) at the top of injection interval and the corresponding bottom hole injection temperature, and	3.1
xii) average bottom hole injection pressure at the top of injection interval and the corresponding average bottom hole injection temperature.	3.1
f) a table showing the volumes of injected CO_2 on a monthly and cumulative basis,	3.1
g) Hall Plots of constant average reservoir pressure where unexplained anomalous injection rate and pressure data could indicate fracturing.	3.2, 4.3.1
h) a plot showing the following daily average data at standard conditions versus time since the commencement of CO_2 injection:	3.1
i) daily CO_2 injection rate,	3.1
ii) wellhead and bottom hole injection pressure, and	3.1
iii) estimated or measured average reservoir pressure in the Basal Cambrian Sandstone (BCS) formation.	4.3.1
i) the potential need for installing additional monitoring towards the periphery of the pressure build up area later in the project life,	5.3

Requirement as listed in the Alberta Energy Regulator (AER) Quest Project Approval No 11837C	Section
j) evaluate the need for additional deep monitoring wells adjacent to the four legacy wells in the approval area. Based on the information provided the ERCB may require the Approval Holder to drill one or more such deep monitoring wells, and	5.3
k) discussion of stakeholder engagement activities in the reporting period.	6
17) The Approval Holder must provide ongoing annual reports beginning March 31, 2016 through to March 31, 2040. The report must include all the requirements listed in clause 10. The Approval Holder must provide a report and presentation of general performance of prior calendar year, identification of operations problems, and discussion of the need for MMV changes. Include updates, conclusions and review of:	
a) need for additional deep monitoring wells adjacent to the four legacy wells in the approval area,	5.3
b) results from well testing including data from annual hydraulic isolation logging,	4.4.5
c) need for further hydraulic isolation logging beyond the first five years of injection,	5.2
d) projected timing for additional 3D surface seismic surveys,	5
e) required frequency of time-lapse seismic surveys,	4.5.2
f) update of CO_2 plume and pressure front models including the results of the prescribed BCS Formation reservoir pressure fall-off test two years after the start-up of each injection well,	3.4
g) need for ongoing BCS Formation fall-off shut-in reservoir pressure tests in all injection wells,	3.4.2
h) updated geology, and	3.4
i) potential need for additional monitoring wells towards the periphery of the pressure build up area.	5.3

N/A means that the specific requirement is not applicable at this time.

2 CONSTRUCTION AND SCHEME OPERATIONS UPDATE

2.1 Capture and Pipeline Construction

Capture and pipeline construction was completed in 2015 [4], and on 29th September 2015, the commercial operations certificate for Quest was issued.

2.2 Project Wells

Shell completed drilling all the wells planned for the operations phase of the project in 2012 and 2013. Table 2-1 is a synopsis of all the completed drilling activity for the Quest Project. Currently, no more wells are expected to be drilled for the current project volumes unless required as per the conditions of AER approval 11837C [1].

Table 2-1: 2023 Quest Well Summary

UWI	Well type	Well name in this report	Spud date [d/m/y]	Rig release [d/m/y]	Total Depth [m MD]	TD Formation
103113205521W402	Appraisal (Abandoned in PCMB)	Redwater 11-32	10/11/2008	02/01/2009	2240.6	Precambrian
103030405720W400	Observation (in CKLK)	Redwater 3-4	23/01/2009	18/03/2009	2190.0	Precambrian
100081905920W400	Injection	IW 8-19	01/08/2010	08/09/2010	2132.0	Precambrian
102081905920W400	Deep Monitoring	DMW 8-19	30/09/2012	15/10/2012	1696.0	Ernestina Lake
102053505921W400	Injection	IW 5-35	21/10/2012	20/11/2012	2143.0	Precambrian
100053505921W400	Deep Monitoring	DMW 5-35	24/11/2012	06/12/2012	1710.0	Ernestina Lake
103071105920W400	Injection	IW 7-11	14/12/2012	20/01/2013	2105.0	Precambrian
102071105920W400	Deep Monitoring	DMW 7-11	23/01/2013	05/02/2013	1664.5	Ernestina Lake
1F1081905920W400	Groundwater	GW 1F1/8-19	08/12/2010	08/01/2011	201	Lea Park
110000911151UL00*	Groundwater	GW UL1/8-19	14/01/2011	17/01/2011	101.0	Foremost
110000911152UL00*	Groundwater	GW UL2/8-19	12/01/2011	13/01/2011	62.8	Foremost
110000911153UL00*	Groundwater	GW UL3/8-19	09/01/2011	10/01/2011	37.5	Foremost
110000911154UL00*	Groundwater	GW UL4/8-19	11/01/2011	11/01/2011	20.0	Oldman
1F1053505921W400	Groundwater	GW 1F1/5-35	08/02/2013	17/02/2013	200	Lea Park
UL1053505921W401*	Groundwater	GW UL1/5-35	17/02/2013	18/02/2013	23	Foremost
1F1071105920W400	Groundwater	GW 1F1/7-11	19/02/2013	26/02/2013	180	Lea Park
UL1071105920W400*	Groundwater	GW UL1/7-11	26/02/2013	27/02/2013	30.7	Foremost

Legend: * well name used in Shell but not official UWIs as these wells do not require a well license due to being less than 150m deep.

2.3 2023 Injection Well Integrity Summary

This section includes and summarizes the status of the Quest injection wells' integrity. Injection well integrity verifies the barriers in place to prevent CO_2 migration out of the injection wells, and is a key component of demonstrating containment.

Well integrity assurance is supported by, but not limited to, activities in Table 2-2. As of 2023, there is no indication of integrity issues in the CO_2 injection wells. All completed well integrity work related to logging activities for injection wells are detailed in Table 2-3. The 2020 MMV Plan Section 4.9.4 *Monitoring Injection Well Integrity* [10] and the 2023 MMV Plan Section 4.10.3.1 *Monitoring Injection Well Integrity* [11] references these activities.

Table 2-2: Well integrity activities (2020 MMV Plan [10], Table 4-3 / 2023 MMV Plan [11] Table 8)

Monitoring technology	**Areal coverage**	**Surveillance Frequency**	**Section** (in this report)
Surface Casing Vent Flow (SCVF) testing	DMWs on injector wellsites and IWs	2021 (2-year frequency), then in 2024 (3-year frequency)*	4.4.7
Gas migration (GM) testing	IW 5-35 and IW 7-11	2021 (2-year frequency), then in 2024 (3-year frequency)*	4.4.7
Wellhead pressure-temperature monitoring	IWs	Continuous	4.3.3
Downhole (DH) pressure-temperature monitoring	IWs	Continuous	4.3.1
Production Casing x Tubing Annulus pressure monitoring	IWs	Continuous	4.3.3
Casing Inspection log /Casing Caliper Log	IWs	2020 MMV: At 5 years, then TBD 2023 MMV: At 15 years based on previous logs	4.4.4
Cement Bond Log	IWs	2020 MMV: At 5 years, then TBD 2023 MMV: As required	4.4.4
Packer Isolation Test	IWs	Annually as per D51 and approval 11837C clause 5f	4.4.6
Injection rate monitoring	IWs	Continuous	3.2
Temperature and Pulsed Neutron Logs	IWs	2020 MMV: As per AER Approval No. 11837C	4.4.5

		clause 5c and related logging extension 2023 MMV: As required	
Distributed temperature sensing	IWs	Quarterly	4.4.3

Notes:

*As per SCVF and GM amendment Approval [13].

2.4 2023 Well Workovers and Treatments

2.4.1 Injection Wells

No new wells have been drilled since the completion of the 2012-2013 drilling campaign. During 2023, the following activities were executed in the injector wells:

IW 8-19:

- Packer Isolation Test (Drillsol level at ~266m below well head which was consistent with measurement in 2022) and topped with N_2: passed.
- Small volume halite remediation completed. Intent to clear obstruction in ERD (Electrical Resonating Diaphragm) primary downhole pressure gauge with erroneous data readings.
- Continued with Installed Temporary Haliburton ERD reader as surface instrumentation due to erroneous readings recorded in the ERD Downhole Pressure gauge (see 4.3.1).
    - Second DH pressure and temperature gauge remains programmed into ERD Reader. This second gauge was installed 10m above the original gauge during the scope of the 2021 timelapse production casing and cement bond log inspection service rig workover.

IW 7-11:

- Packer Isolation Test (Drillsol level at ~270m below well head which was consistent with measurement in 2022) and topped with N_2: passed.
- Fiberoptic DTS cable repair.
- Continued with Installed Temporary Haliburton ERD (Electrical Resonating Diaphragm) reader as surface instrumentation due to erroneous readings recorded in the ERD Downhole Pressure gauge in 2022. Gauge has been reading correctly throughout 2023 (see 4.3.1).
    - Second DH pressure and temperature gauge remains programmed into ERD Reader. This second gauge was installed 10m above the original gauge during the scope of the 2021 timelapse production casing and cement bond log inspection service rig workover.

IW 5-35:

- Packer Isolation Test (Drillsol level at ~229m below well head which was consistent with measurement in 2022) and topped with N_2: passed.
- Halite remediation to address low injectivity performance.

All operational injection well integrity related logging activities are detailed in Table 2-3. There were no integrity related logging activities in 2023.

Table 2-3: Well integrity logging activities

	IW 8-19	IW 7-11	IW 5-35
2010	CBL-VDL-USIT	-	-
2012	-	-	CBL-VDL-USIT
2013	EMIT	CBL-VDL-USIT EMIT	CBL-VDL-USIT EMIT
2015	RST	RST	RST
2016	PNx Tubing Caliper	PNx Tubing Caliper	-
2017	PNx Tubing Caliper	PNx Tubing Caliper	-
2018		Downhole Video Log	
2019	-	-	PNx Tubing Caliper
2020	PNx and Temperature	PNx and Temperature	PNx and Temperature
2021	Casing HR Vertilog, Casing MFC, CBL-VDL, USIT (Casing and Cement bond)	Casing HR Vertilog, Casing MFC, CBL-VDL, UltraView (Casing and Cement bond)	PNx and Temperature
2022	Tubing Caliper	Tubing Caliper	Casing HR Vertilog, Casing MFC, CBL-VDL, UltraView (Casing and Cement bond)
2023	-	-	-

2.4.2 Deep Monitoring Wells

No new wells have been drilled since the completion of the 2012-2013 drilling campaign. During 2023, the following activities were executed in the Deep Monitoring wells:

DMW 8-19

- Attempted equalization of well bore pressure caused by higher pressure recordings on DH gauge post 2022 intervention with Geophone replacement.

DMW 7-11

- No activities completed in the well.

DMW 5-35

- No activities completed in the well.

2.4.3 Observation Well

The Observation Well monitoring is outside of the MMV program. No new Observation Wells have been drilled. During 2023, the following activities were executed in the Observation Well:

Observation Well 3-4 – Cooking Lake

- SCVF Testing – Confirmed that the SCVF died out. Reported in DDS.

2.4.4 Groundwater Wells

The groundwater well drilling and completion campaign was completed in 2013. A full report can be found in the Second Annual Status Report [3]. No new project groundwater wells have been drilled since the 2012-2013 drilling campaign.

During 2023, there were no well work overs or treatments conducted on the Groundwater Wells.

3 INJECTION WELL PERFORMANCE

3.1 Injection Data Reporting

Table 3-1 shows the monthly injected Quest total volumes by injection well. Rate changes are primarily a result of Quest capture facility throughput and planned/unplanned operational outages. Table 3-2 lists the yearly total volumes by injection well.

Table 3-1: 2023 Quest CO_2 Injection Summary.*

Mass of Injected CO_2 [Thousand-Tonnes kT] in 2023					
Month	**05-35**	**08-19**	**07-11**	**Monthly Total**	**Cum Total for 2023**
January	36	24	36	96	96
February	31	27	32	91	187
March	37	22	36	95	283
April	32	21	5	57[1]	340
May	30	31	8	69[1]	409
June	28	34	10	72[1]	480
July	27	31	35	92	572
August	30	16	33	79	652
September	36	25	36	97	749
October	21	18	22	62[2]	810
November	32	24	32	88[2]	898
December	39	30	36	105	1003*

*Unverified volumes.
[1]Low injection volumes April through June as a result of Scotford planned/unplanned maintenance.
[2]Low injection volumes in October 2023 as a result of Quest Compressor Motor replacement.

Table 3-2: Total Quest CO2 Injection Summary*

TOTAL Mass of Injected CO_2 [kT]					
Year	**05-35**	**08-19**	**07-11**	**Total**	**Cum Total**
2015	0	210	161	371	371
2016	0	568	540	1108	1479
2017	0	589	549	1138	2617
2018	91	511	464	1066	3683
2019	340	352	436	1128	4811
2020	306	278	356	940	5751
2021	389	290	376	1055	6806
2022	293	377	300	971	7777
2023*	379	303	320	1003	8780

*Unverified Annual volumes.

Injection stream compositions and variations are shown in Table 3-3.

Table 3-3: 2023 Quest CO_2 Injection Summary: Injection Stream

MONTHLY DATA	Injection Stream Content [Volume %]*				
	CO_2	H_2	CH_4	CO	H_2O
January	99.385	0.478	0.066	0.015	0.004
February	99.431	0.458	0.065	0.010	0.004
March	99.549	0.457	0.061	0.010	0.004
April	99.540	0.480	0.060	0.010	0.005
May	99.570	0.460	0.060	0.010	0.005
June	99.672	0.466	0.061	0.012	0.005
July	99.806	0.477	0.065	0.018	0.004
August	99.386	0.486	0.057	0.018	0.004
September	99.467	0.465	0.060	0.018	0.004
October	99.545	0.476	0.062	0.016	0.004
November	99.421	0.502	0.060	0.015	0.003
December	99.439	0.486	0.058	0.015	0.003

**Note that the compositions are calculated on weighted average.*

Injection flow rates for the injection wells are shown in Figure 3-1, Figure 3-2 and Figure 3-3.

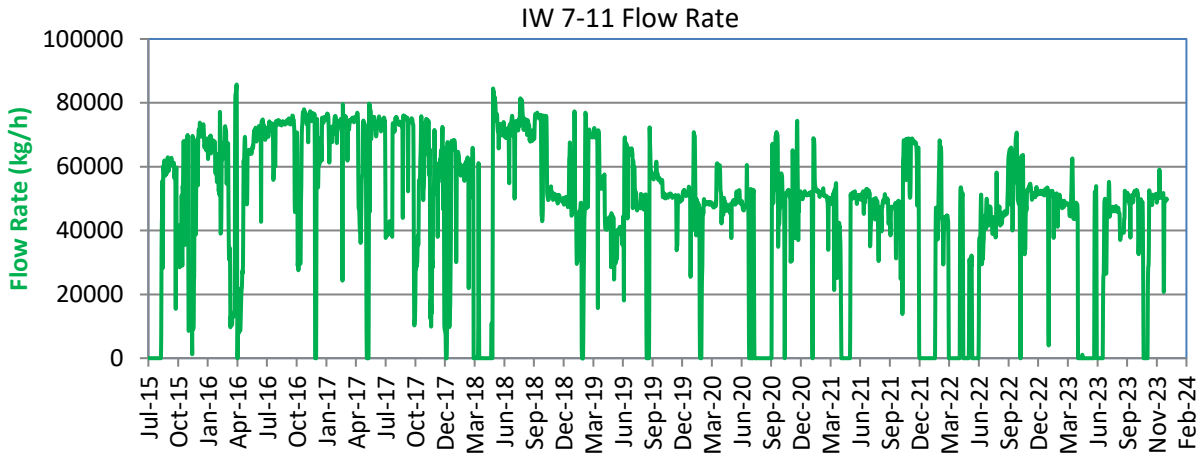


Figure 3-1: Injection Rate History for IW 7-11

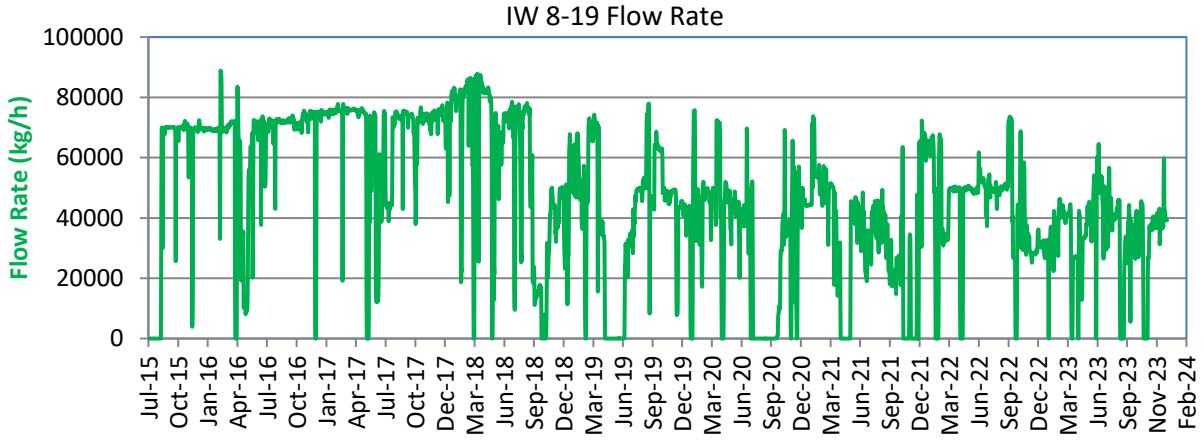


Figure 3-2: Injection Rate History for IW 8-19

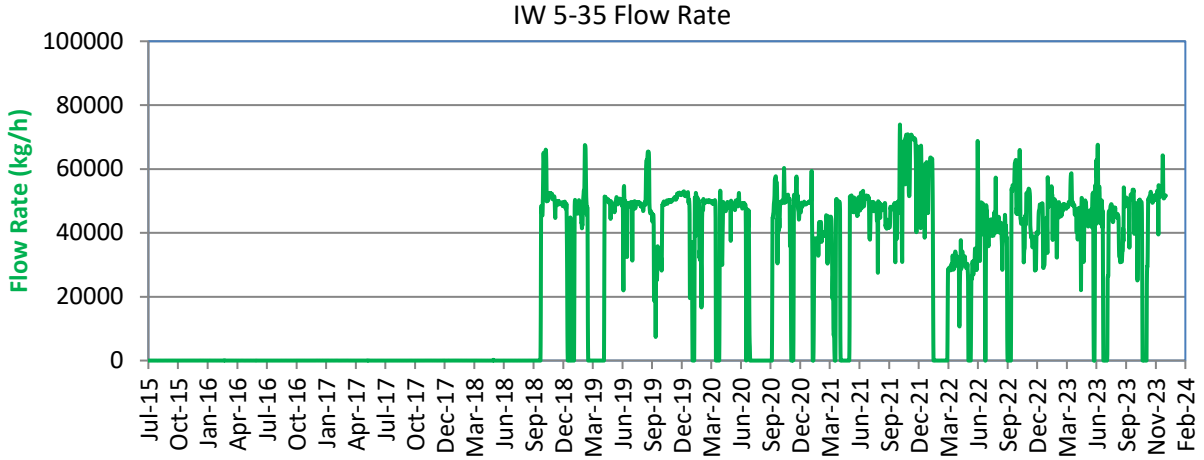


Figure 3-3: Injection Rate History for IW 5-35

2023 monthly data summaries for injected mass, rates, pressures and temperatures are reported in Table 3-4, Table 3-5, Table 3-6, and Table 3-7.

Table 3-4: 2023 Quest CO_2 Injection Summary: Injection data – Mass

MONTHLY DATA	INJECTION WELLS		
Mass of CO_2 Injected[1] [kT]	**IW 5-35**	**IW 8-19**	**IW 7-11**
January	36	24	36
February	31	27	32
March	37	22	36
April	32	21	5
May	30	31	8
June	28	34	10
July	27	31	35
August	30	16	33
September	36	25	36
October	21	18	22
November	32	24	32
December	39	30	36
Cumulative Mass of CO_2 Injected [1] [kT]			
As of Dec 31,2023	**1419**	**3175**	**3182**
January	1455	3199	3218
February	1486	3226	3251
March	1523	3248	3287
April	1555	3270	3291
May	1585	3300	3299
June	1613	3334	3309
July	1640	3365	3344
August	1670	3381	3376
September	1706	3406	3412
October	1727	3425	3434
November	1759	3449	3466
December	1798	3478	3502

[1]Volume of CO_2 is reported in standard units for CO_2, i.e., mass.

Table 3-5: 2023 Quest CO_2 Injection Summary: Injection data

MONTHLY DATA	INJECTION WELLS		
Total Monthly Hours on Injection [hours]	**IW 5-35**	**IW 8-19**	**IW 7-11**
January	737	694	709
February	669	672	672
March	744	648	744
April	706	638	96
May	642	697	153
June	539	720	258
July	603	744	744
August	744	444	744
September	720	696	720
October	477	474	476
November	668	668	668
December	741	742	718
Maximum Daily Injection Rate[1] [T/h]			
January	57	42	53
February	50	46	51
March	59	45	63
April	51	42	48
May	55	54	54
June	68	65	50
July	49	57	55
August	54	46	52
September	54	44	53
October	50	46	53
November	53	41	53
December	64	60	59
Average Daily Injection Rate [T/h]			
January	49	32	49
February	46	41	48
March	50	30	48
April	44	29	6
May	41	41	11
June	39	47	13
July	36	41	47
August	41	22	44
September	49	35	50
October	29	25	29
November	45	34	44
December	52	40	49

[1]Maximum of the daily averages.

Table 3-6: 2023 Quest CO_2 Injection Summary: Well Head Pressures and Temperatures

MONTHLY DATA	IW 5-35		IW 8-19		IW 7-11	
Maximum WHIP and WHIT[1]	**WHIP [kPa-g]**	**WHIT [°C]**	**WHIP [kPa-g]**	**WHIT [°C]**	**WHIP [kPa-g]**	**WHIT [°C]**
January	7385	5	5445	8	6635	13
February	6322	4	5958	8	6495	12
March	7585	4	5668	7	7582	12
April	6327	4	5185	6	5929	15
May	6955	21	6910	18	6600	24
June	8183	27	8753	14	6396	26
July	6119	21	7578	15	7119	18
August	6767	11	6711	23	7064	18
September	6876	12	6456	16	7454	19
October	6363	11	6450	15	7442	19
November	6167	7	5433	10	6611	14
December	7565	7	7903	11	7532	14
	IW 5-35		**IW 8-19**		**IW 7-11**	
Average WHIP and WHIT	**WHIP [kPa-g]**	**WHIT [°C]**	**WHIP [kPa-g]**	**WHIT [°C]**	**WHIP [kPa-g]**	**WHIT [°C]**
January	6275	4	4591	4	6282	11
February	5927	3	5314	6	6071	11
March	6295	3	4635	3	6009	10
April	5624	3	4304	3	4558	7
May	5226	7	5215	8	4799	17
June	5810	12	6485	11	4798	16
July	5406	11	5931	13	6493	16
August	5497	10	5295	15	6320	16
September	6384	11	5591	14	7159	18
October	5344	5	5331	7	5853	9
November	5622	6	4938	8	6036	11
December	6035	6	5310	8	6441	12

Note: [kPa-g] refers to gauge pressure.
[1]Maximum of the daily averages.

Table 3-7: 2023 Quest CO_2 Injection Summary: Bottom Hole Pressures and Temperatures

MONTHLY DATA	IW 5-35		IW 8-19		IW 7-11	
Maximum BHIP and BHIT[2]	**BHIP [kPa-g]**	**BHIT [°C]**	**BHIP[1] [kPa-g]**	**BHIT [°C]**	**BHIP [kPa-g]**	**BHIT [°C]**
January	22633	24	21094	40	21138	41
February	22413	23	21174	28	21085	31
March	22761	22	21037	42	21305	31
April	22330	26	20928	40	21013	47
May	22525	38	21497	41	21017	48
June	22181	42	21208	31	20935	48
July	21671	43	21060	33	21081	37
August	21809	30	20955	44	21065	37
September	21884	30	20997	41	21118	37
October	21792	43	20871	44	21118	47
November	21758	44	20803	45	21044	47
December	22171	26	21057	30	21202	37
	IW 5-35		**IW 8-19**		**IW 7-11**	
Average BHIP and BHIT	**BHIP [kPa-g]**	**BHIT [°C]**	**BHIP[1] [kPa-g]**	**BHIT [°C]**	**BHIP [kPa-g]**	**BHIT [°C]**
January	22353	22	20961	28	21034	31
February	22272	22	21108	27	21018	31
March	22404	21	20800	29	21018	30
April	22146	21	20777	27	20271	43
May	22030	25	21098	27	20283	44
June	21553	29	20987	30	20322	42
July	21393	31	20884	32	20936	35
August	21529	29	20753	37	20911	35
September	21764	29	20907	34	21056	37
October	21361	34	20685	37	20697	39
November	21583	27	20684	31	20887	33
December	21823	24	20846	29	21011	32

Note: [kPa-g] refers to gauge pressure.
[1]Summary of data primarily from the Upper Bottom Hole Pressure Gauge as erroneous data was observed on the Lower Bottom Hole Pressure Gauge. For details, see 4.3.1.
[2]Maximum of the daily averages.

3.2 Injectivity

The Injection stream composition is shown in Table 3-3. The composition values are within design scope and have not impacted injectivity performance. There are no concerns on reactivity of the impurities or impact on the phase behavior.

Overall the Quest injection wells have demonstrated sufficient injectivity to reliably meet planned captured CO_2 volumes. The injectivity at each injection well is illustrated in the injectivity index (kg/[hr x kPa]) plots shown in Figure 3-4, Figure 3-5, and Figure 3-6. Injectivity Index plots are used for monitoring injection performance for CO_2 injection instead of the Hall Plot method designed for water injection. The Down Hole Pressure trends (4.3.1) show pressures substantially below the Bottom Hole Injection pressure License Limit, indicating no fracturing out of the reservoir.

Comments on the Quest injection well injectivity performance in 2023:

IW 7-11:

- Figure 3-4 shows Injectivity remained flat for the duration of the year.
- Fall off testing to gather stabilized reservoir pressure was completed in April, May, and June so there is minimal injectivity data for these months

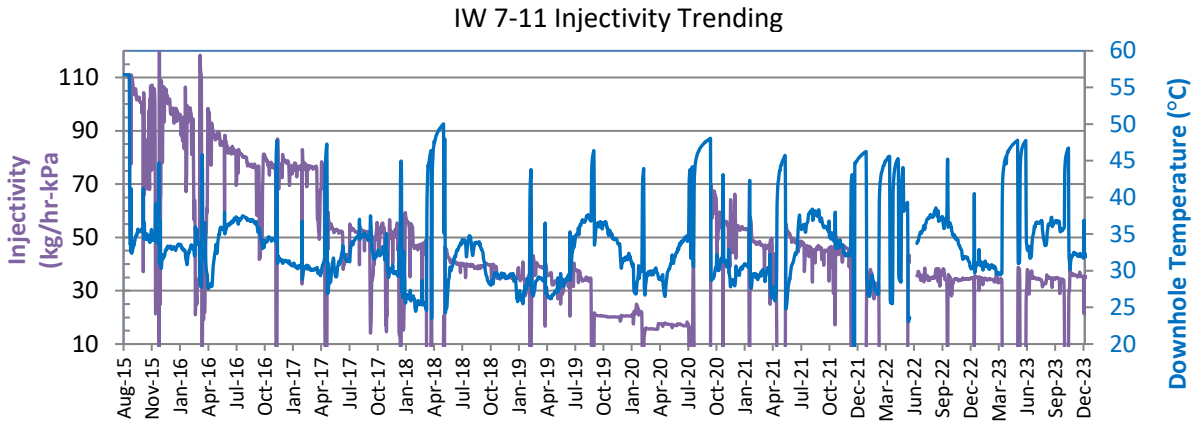


Figure 3-4: Injectivity Index and BHT for 7-11 over time

IW 8-19:

- Figure 3-5 shows a high variability in injectivity performance. Relative across a one year period, Injectivity in the CO_2 injection wells is rate dependant. At high injection rates, the injectivity performance can improve in comparison to lower injection rates. The injectivity trend of IW 8-19 from 2021 through to 2023 is explained by being operated as the "float" well, the first well to adjust injection rate as capture rates move up and down. As a result, the rate in 2023 was typically lower than the 7-11 and 5-35 injection wells. The flow rate data has been added to Figure 3-5

to demonstrate the injectivity dependency on flow rate to explain the variability in injectivity performance.

- In May of 2023 a small halite wash (30% of volume compared to previous halite washes in Quest) was completed in an effort to wash away any halite that may be obstructing the downhole pressure gauge sensing port (4.3.1). Minimal benefit was observed as a result of this wash on injectivity performance.

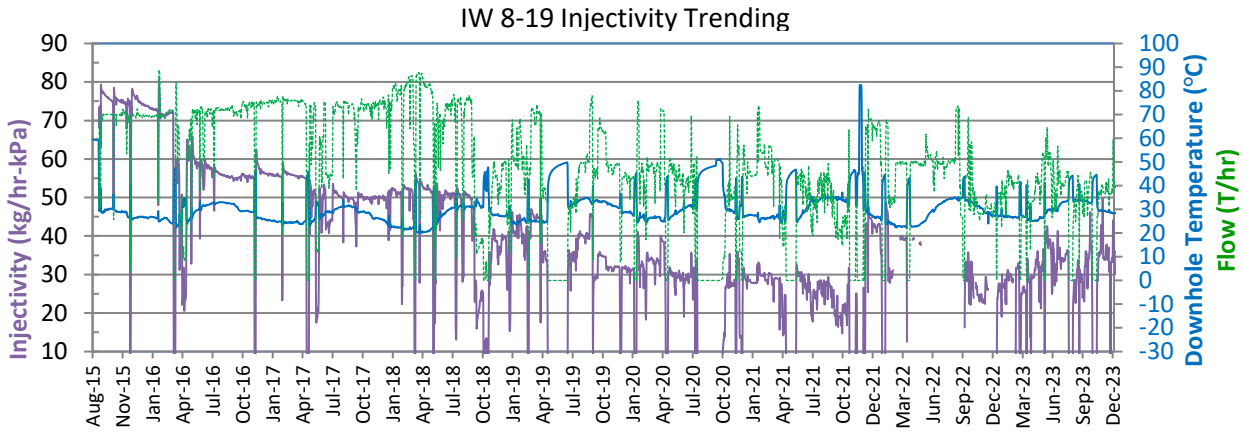


Figure 3-5: Injectivity Index and BHT for 8-19 over time. Flow rate also plotted to show rate dependency of Injectivity throughout injection history

IW 5-35:

- As mentioned in the 2021 Annual Report [14] IW 5-35 experienced a significant gain in April 2021 and subsequent injectivity loss in October 2021. Figure 3-6 shows this trend.
- As referenced in the 2022 Annual Report [15], a 38% injectivity loss was observed following the start of the Casing Inspection and Cement Bond Logging program. Although some injection performance was regained in Q4 2022 and Q1 2023, a Halite remediation was completed in May 2023, which returned the injection performance to the level prior to the 2022 workover.
- It should be noted that the injectivity gain from the 2023 Halite remediation was significantly less than the gain in the April 2021 Halite remediation. This supports the theory that the impairment occurred in October 2021 was not due to halite precipitation.

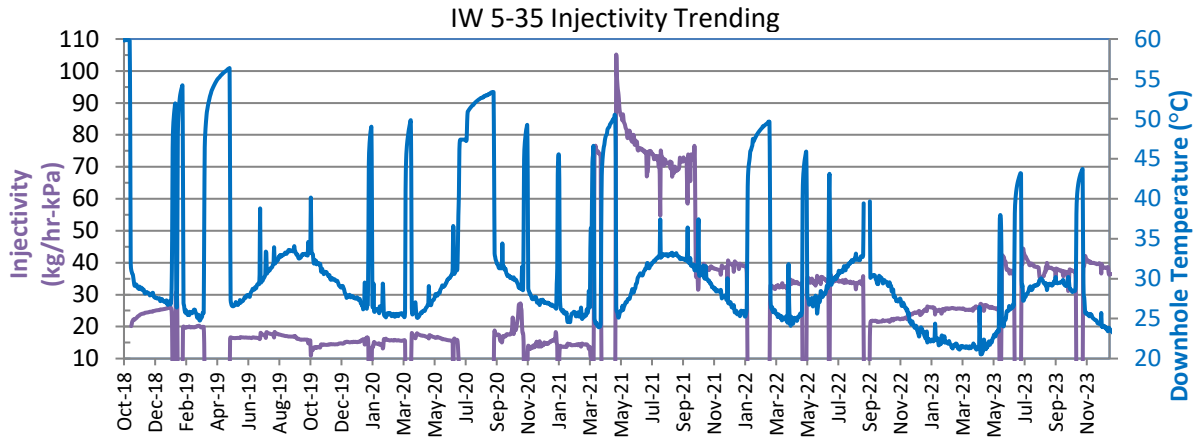


Figure 3-6: Injectivity Index and BHT for 5-35 over time

3.3 Model to Performance Conformance

Pressure fall-offs have been recorded throughout the operating years that have enabled a calibration of the reservoir model to shut-in stabilized pressures through to the end of Q4 2023. Figure 3-7 illustrates the measured bottomhole pressures (BHPs) that were recorded when the wells were shut-in (discrete data points) versus the modelled BHPs (solid lines). The match between the data and the modelled BHPs from the dynamic reservoir model suggests the model is able to reasonably predict the pressure fall-off response observed in the reservoir. This conformance to observed BHP data provides confidence in using the reservoir model for pressure forecasting.

The operational flexibility afforded by having all three wells on injection means that pressure fall-offs are used as an easily acquired form of data for reservoir pressure conformance.

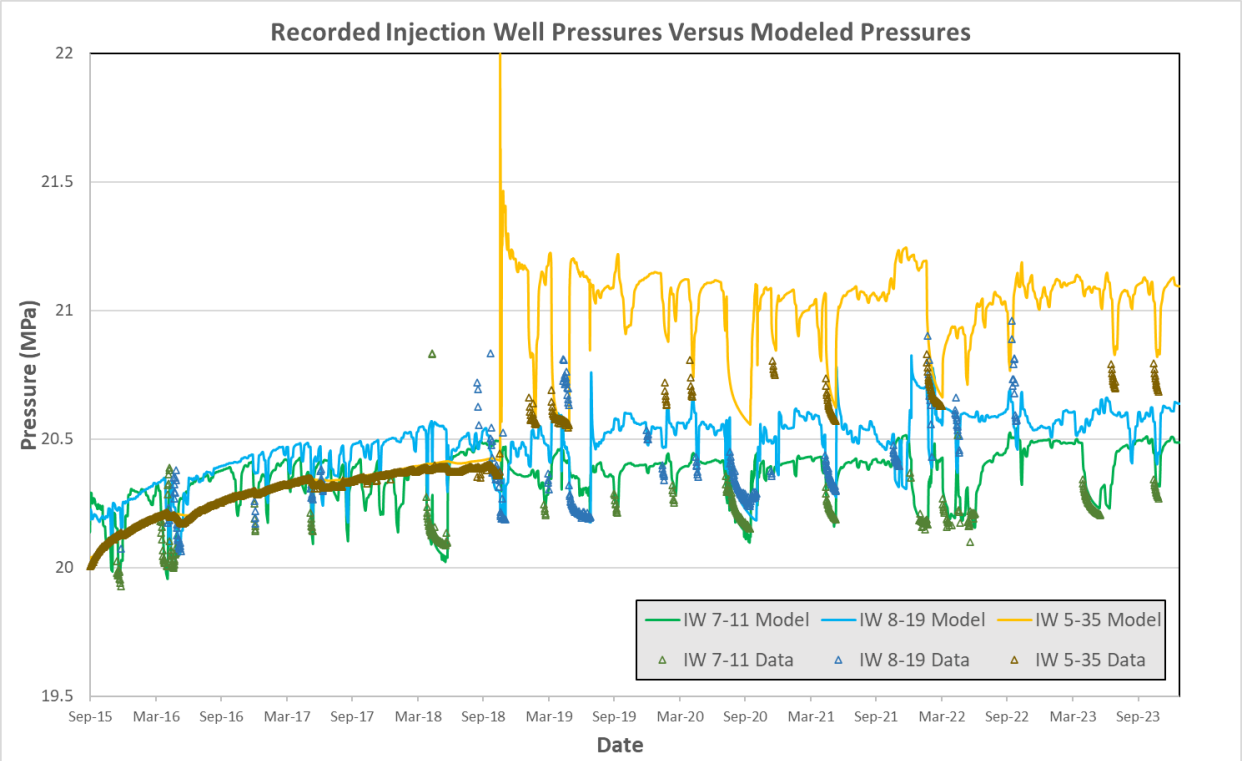


Figure 3-7: Actual Shut-in BH Pressure Gauge Response vs Modelled Pressure Response

3.4 Reservoir Modelling

3.4.1 Modelling Updates

In 2022 and 2023, a refresh to the reservoir model was performed that updated multiple components of the static reservoir model based on the existing set of well

and seismic survey data. No new wells were drilled in this timeframe. Based on these updates, a reservoir model covering a region of approximately 175km by 190km was constructed and the dynamic performance is calibrated against the pressure fall-offs through to the end of Q4 2023 as described in Section 3.3. The performance of this model is in line with the expectation case of prior iterations.

As with any modelling effort there remains room for further improvement. As such, the outputs of the updated model presented here are a snapshot of ongoing work that continues to be refined further. Advancements to the model continue to be explored and will be the subject of future annual reports.

3.4.2 Pressure Prediction

The forecast in Figure 3-8 assumes that an equal share of the annual CO_2 volumes will be injected into each of the three injection wells for the remainder of the life of the project. No assumptions of future well shut-ins or capture availability were made in the pressure prediction. The pressure forecast in Figure 3-8 represents a non-unique scenario that depends on numerous modelling inputs and assumptions. Therefore, it is important to highlight that there is still uncertainty around such a prediction.

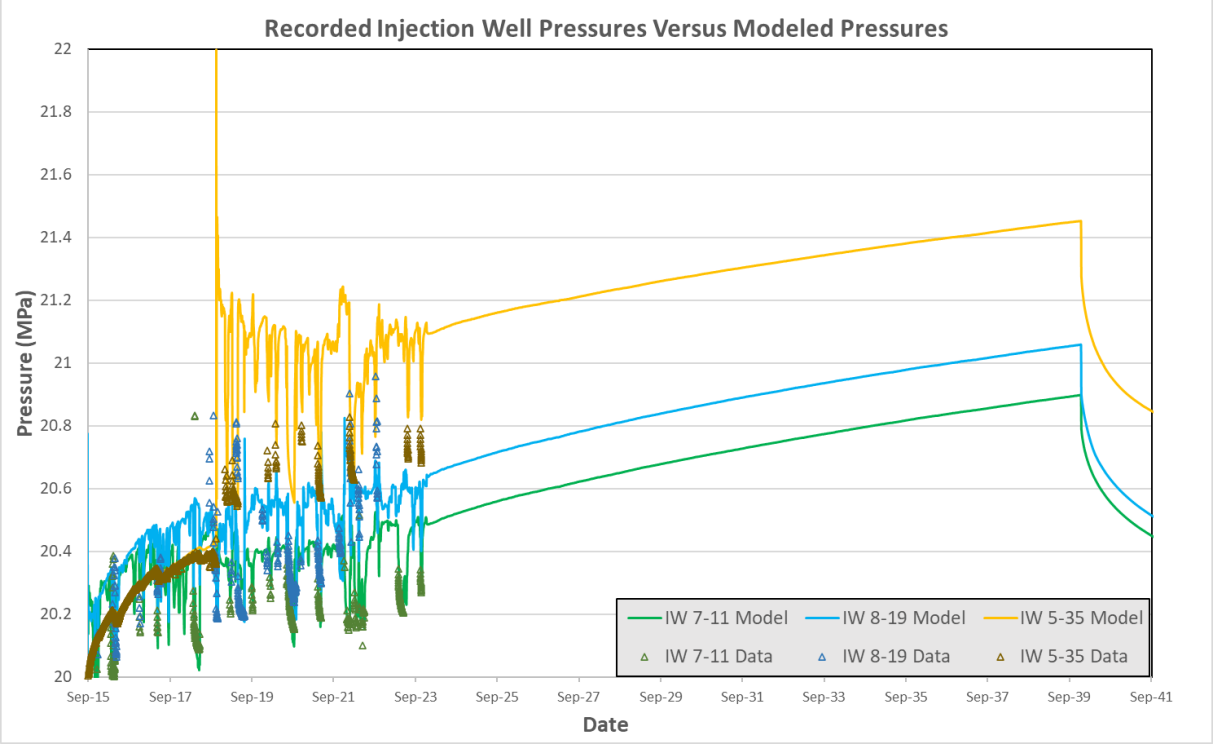


Figure 3-8: Well by well Modelled Pressure Forecast

All three Quest injection wells were shut-in due to scheduled well workovers and unplanned operational events at the Scotford facility, IW 7-11 in Q2 and both IW

8-19 and IW 5-35 in Q4. These opportunities were used to collect pressure data for extended fall-off tests. Figure 3-9, Figure 3-10, Figure 3-11 show the BHP for the injection wells during their shut-in period and provide an estimate of the stabilized reservoir pressures at each well location. The stabilized reservoir pressure measured in the wells at the end of the fall-off test was 20.2 MPa at IW 7-11, 20.45 MPa at IW 8-19, and 20.7 MPa at IW 5-35.

The initial reservoir pressure was 19.6 MPa at IW 7-11, 19.7 MPa at IW 8-19, and 20.0 MPa at IW 5-35. Comparing these to the most recent stabilized reservoir pressure, it is observed that there has been a pressure increase of ~0.7 MPa at all three well sites since the start of injection. The slightly higher reservoir pressure at IW 5-35 reflects the local geology variation. This observation is comparable with the reported reservoir pressure increase of about 0.6 MPa in prior year reports.

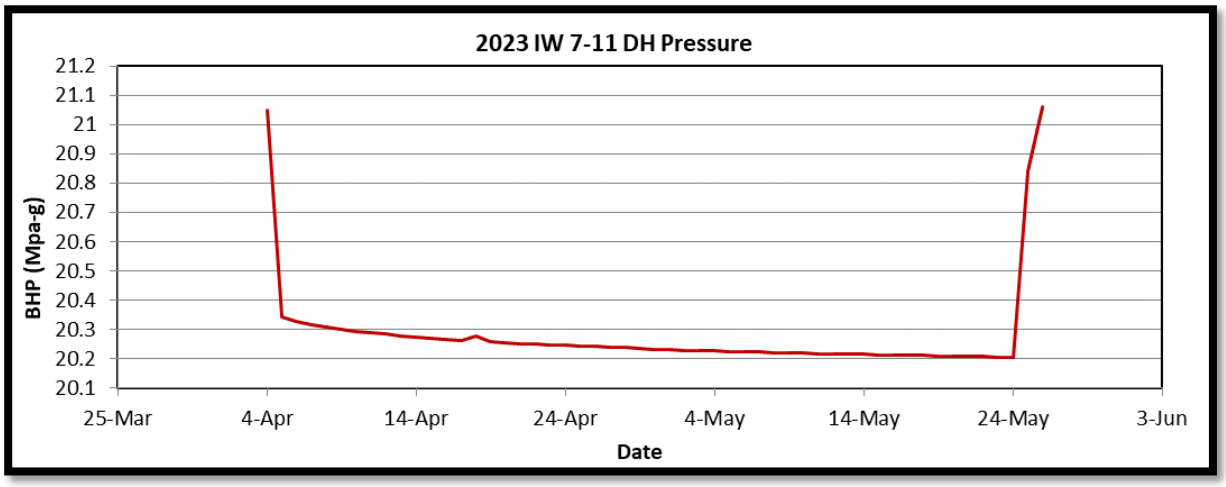


Figure 3-9: IW 7-11 pressure fall-off and stabilization in Q2 2023

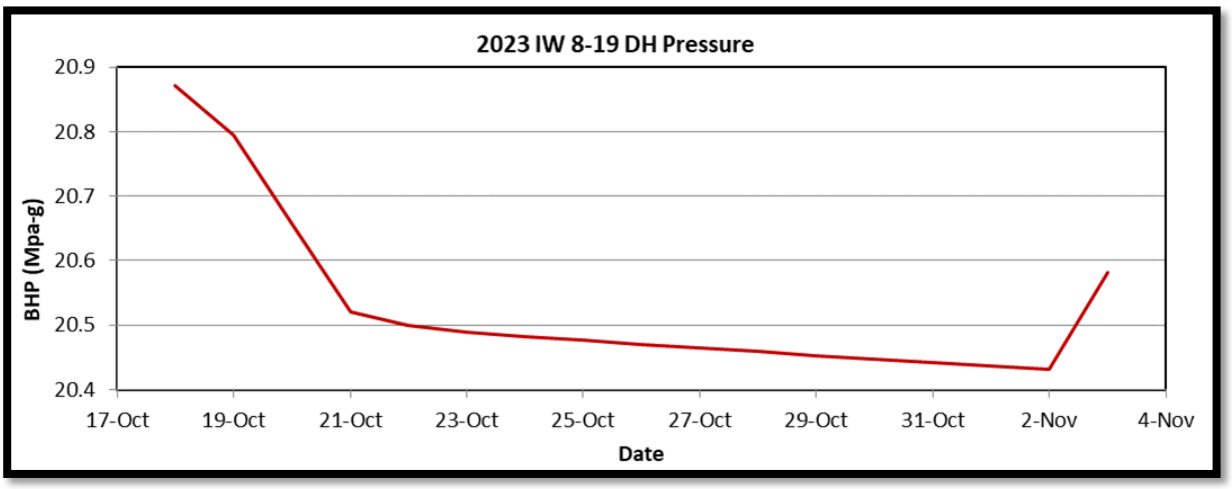


Figure 3-10: IW 8-19 pressure fall-off and stabilization in Q4 2023

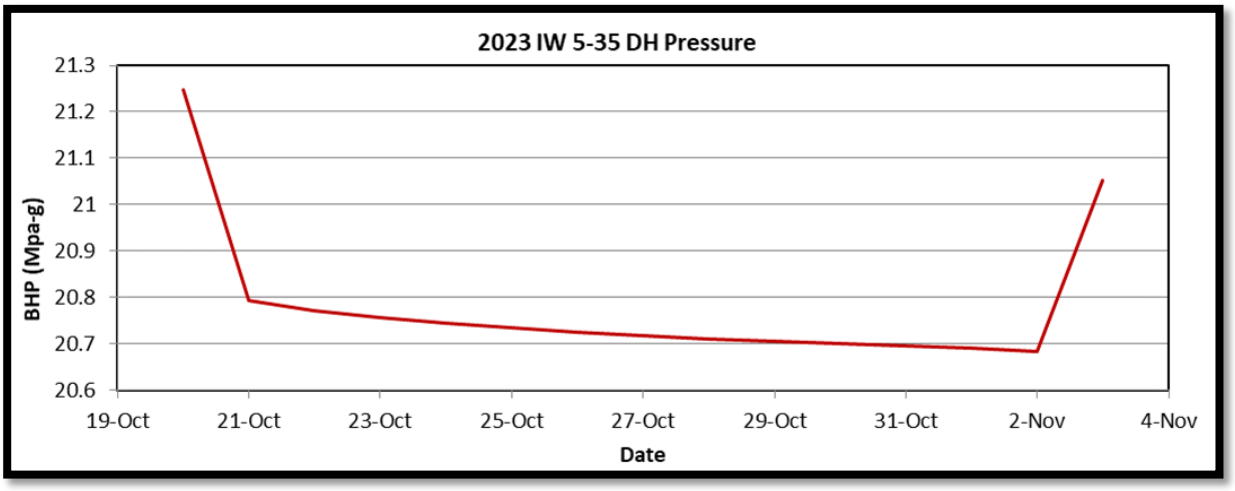


Figure 3-11: IW 5-35 pressure fall-off and stabilization in Q4 2023

Figure 3-8 illustrates that when injection operations cease in 2040, the pressure increase in the BCS reservoir above initial reservoir pressure is forecasted to be less than 2 MPa. This pressure increase represents less than 12% of the delta pressure required to exceed the BCS fracture extension pressure and less than 25% of the pressure increase required to exceed the AER Approval operating constraint on bottom hole pressure. Continued trending of low end-of-life reservoir pressures indicates that it is extremely improbable for CO_2 leakage to occur via fracturing or fault reactivation.

3.4.3 Plume Prediction

The 2023 model was utilized for the pressure forecast as shown in Figure 3-8 and the existing 2021 model was utilized for the plume forecast as illustrated in the end-of-life plumes in Figure 3-12. The latest plume prediction remains within the range of uncertainty established by prior models.

The CO_2 plume size at IW 5-35 is marginally smaller than the other two as it is projected to have slightly lower injection volumes associated with it, due to the fact that injection began at that wellsite 3 years after the other locations. Other indications of plume size have come from imaging results from VSP surveys. These results have aligned with the dynamic reservoir modelling to date. In addition, analysis on the 2021 3D seismic volume will provide additional information to support conformance modelling outcomes in the coming years. Uncertainties will continue to be reduced in time as additional well performance data become available.

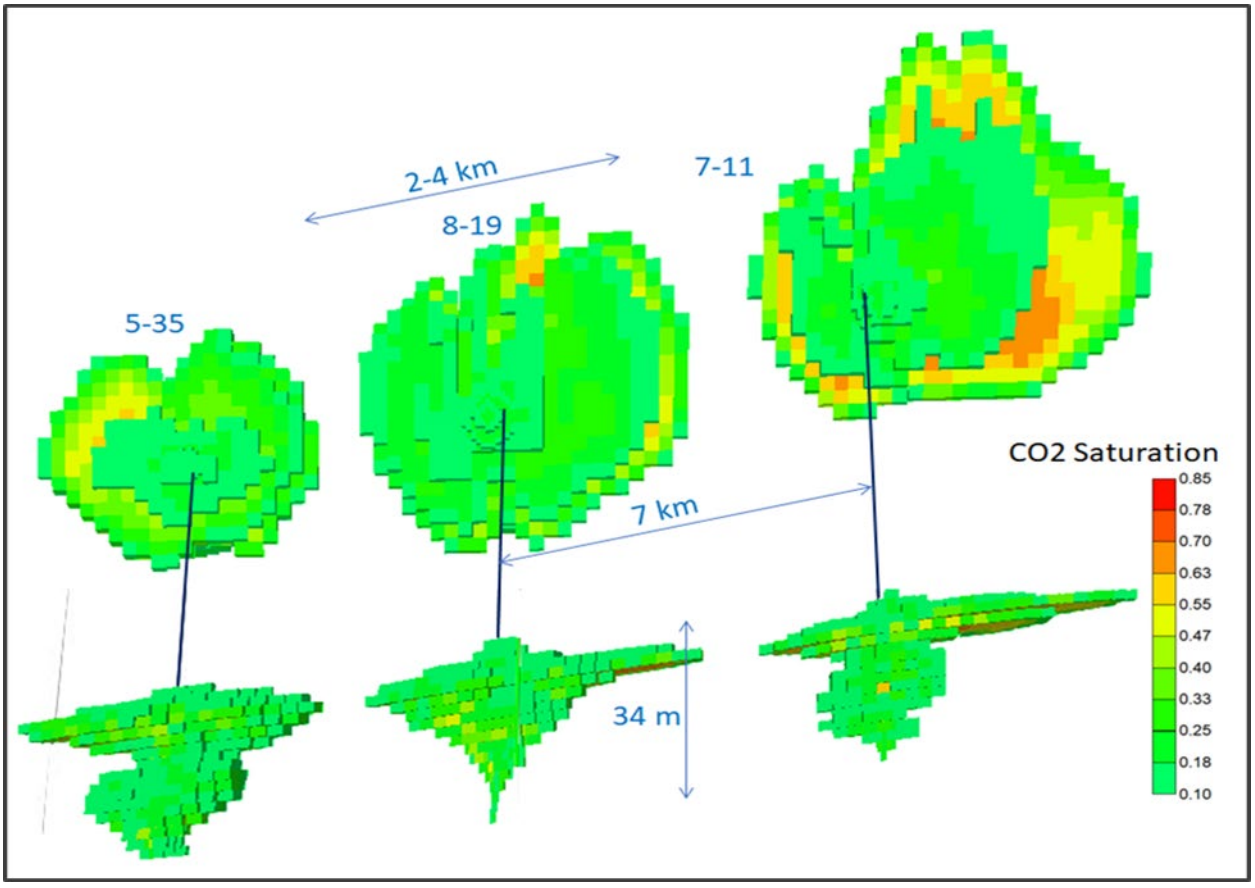


Figure 3-12; Schematic map view and 3D views of the predicted CO_2 plume in 2040. The plumes as displayed utilize the Gen-4 property model

3.4.4 Reservoir Capacity

A base case pore volume of 14.3 billion m^3 within the SLA could store 27 MT of CO_2 at just under 70% potential storage capacity [7]. This is a conservative calculation because displacement of water outside the SLA relieves the pressure over time. As discussed in (3.4.2), dynamic pressure modeling indicates that the entire 27 MT of CO_2 can be injected while keeping the stabilized reservoir pressure below 26MPa. This is far below the pressure limit specified in clause 5(a) of the Approval [1]. The First Annual Status Report [2] stated that the Quest project will not raise the stabilized reservoir pressure at any injector beyond the AER approved 26 MPa limit within the life of the project at the current injection rates and this remains true today.

Based on injection volumes since project initiation and the licensed cumulative injection volume specified in clause 5(d) of the Approval [1], the remaining licensed storage potential of the Quest Sequestration Lease Area is reported in Table 3-8 as per the data from Table 3-1.

Table 3-8: Remaining Licenced Volume in the Sequestration Lease Area as of end 2023

Year	Yearly Injection Total	Remaining Licenced Volume
Pre-injection	-	27 MT CO_2
2015	0.371 MT	26.629 MT CO_2
2016	1.108 MT	25.521 MT CO_2
2017	1.138 MT	24.383 MT CO_2
2018	1.066 MT	23.317 MT CO_2
2019	1.128 MT	22.189 MT CO_2
2020	0.941 MT	21.248 MT CO_2
2021	1.055 MT	20.193 MT CO_2
2022	0.971 MT	19.222 MT CO_2
2023*	1.003 MT	18.219 MT CO_2

*Unverified Annual volumes.

4 OPERATIONAL MMV PLAN ACTIVITIES AND PERFORMANCE

4.1 Summary of Operational MMV Activities in 2023

In 2023 MMV activities included atmosphere, hydrosphere, geosphere, and well-based monitoring. The following is a summary of these activities:

Atmosphere Domain: Ongoing monitoring of CO_2 levels in the atmosphere at the injection well sites using the Lightsource technology continued. Daily Operator rounds were carried out at the injection well sites.

Hydrosphere Domain: Continuous monitoring of the Quest ground water wells and discrete sampling at Project wells was conducted from Q1 to Q4 2023. Further details on the hydrosphere monitoring activities can be found in Appendix A: Report on 2023 Hydrosphere Monitoring Program.

Biosphere Domain: No activities took place regarding soil gas and soil surface CO_2 flux measurements.

Geosphere Domain: Monthly satellite image collection for InSAR was completed. Since September 2017, a single frame centered over the 3 injection well pads has been used for image collection. In 2021, 3DSEIS was acquired over the IW 5-35 and IW 8-19 as well as two 3 component (3c) 2DSEIS lines through the same IWs. A 2DVSP was acquired at IW 5-35 in 2021 along with its associated 2DSEIS along the 2DVSP acquisition lines. In 2023, the time-lapse 3DSEIS, and time-lapse 2DVSP data were interpreted.

Well based Monitoring: Ongoing data collection via wellhead gauges, downhole gauges, downhole microseismic geophone array, and DTS lightboxes.

4.2 MMV Infrastructure Improvements

Infrastructure work done in 2023:

- The Primary ‘lower’ downhole gauge on IW 8-19 showed erroneous data at various times during 2023. Troubleshooting was completed as documented in (4.3.1). Pressure monitoring requirements were met by collecting downhole pressure data from the Secondary ‘upper’ gauge that was installed in the 2021 Workover. Well head pressures continued to be monitored against a maximum limit to ensure that Bottom Hole Injection Pressure limits were not exceeded. This strategy was

communicated to, and supported by the AER and is covered in the 2022 Annual Status Report [15].

- Fiberoptic repair was completed on the 7-11 DTS surface cables. See (4.4.3).
- Temporary erroneous CO_2 readings ('spiking') were identified in the Lightsource data due to a sensor programming issue. This issue was resolved by adjusting analyzer settings and adding desiccant packs to all Open Path Laser Heads to reduce moisture. Additionally, equipment maintenance was carried out to fix communication/data converter issues due to a damaged fuse. Lightsource data IT systems continue to be optimized and analysis of data system and functionality is ongoing.

Table 4-1: Summary of MMV activities planned and executed in 2023

Domain	Activity planned for 2023 ^	Executed	Comment
Atmopshere			
	LightSource measurements at wellsite pads 8-19, 7-11, & 5-35	✓	System running throughout 2023.
	Operator rounds at IW sites	✓	Daily.
Biosphere			No planned Biosphere work in 2023.
Hydrosphere			
	Downhole pH & EC monitoring at Project groundwater wells	✓	
	Discrete Sampling at Project groundwater wells	✓	Q1, Q2, Q3, and Q4.
Geopshere			
	Injection rate monitoring	✓	
	Annulus pressure monitoring	✓	
	DHPT monitoring at all three DMWs	✓	
	DHPT monitoring at all three IWs	✓	Short periods of erroneous data in IW 8-19. Montitored wellhead injection pressure during this period against a maximum allowable limit to ensure Bottom Hole Injections pressure limits were not exceeded.
	DHP monitoring at Observation Well Redwater 3-4	✓	
	WHPT monitoring at all three IWs	✓	
	Mechanical well integrity testing (Packer Isolation Test)	✓	Packer isolation tests performed at all IWs.
	MSM at DMW 8-19	✓	
	DTS monitoring at IWs	✓	
	Time-Lapse Surface seismic interpretation	✓	Time-lapse interpretation of surface 3D over IWs 5-35 and 8-19 alongside time-lapse DAS VSP data at IW 5-35.
	InSAR: monthly satellite image collection	✓	
Injected CO2			
	Analysis of captured CO_2 at Scotford Upgrader	✓	Injection certification requirement activity.
Notes:	^ list of MMV activities as per 2020 and 2023 MMV Plans		

4.3 Assessment of MMV objective 'Containment' - Tier 1

The tiering system in the 2020 [10] and 2023 [11] MMV Plans is intended to focus on the critical risks that address containment through direct, continuous monitoring.

Tier 1 activities address critical risks to loss of containment through direct, continuous monitoring. These technologies monitor data closest to the Storage Complex or along the wellbore and are managed with active barriers that would address any trigger events.

Refer to the 2020 MMV Plan [10], section 4.9.1, and the 2023 MMV Plan [11], section 4.10 for a further discussion of this strategy.

Table 4-2 has been optimized from the previous Annual Status Reports to improve clarity on if any identified triggers indicate a containment risk. In the table, the first row for each technology is used to identify if there is either uncertainty in the data or if a trigger condition is observed. If so, it results in an investigation. The second row is then populated dependent on the outcome of that investigation, ultimately determining if there is a threat to loss of containment or not. Going forward, this will help visually support the dialogue in the Annual Status Reports.

Table 4-2: Overall assessment of trigger events used to assess loss of containment in 2023 with triggers defined as per 2020 MMV Plan [10]

Tier	Technology	Indicator	Surveillance Frequency	Trigger	Magnitude of CO_2 Detection Capability	Trigger ---------- Threat to Containment	2023 Q1	2023 Q2	2023 Q3	2023 Q4
Tier 1	**IW DHP**	Pressure	Continuous	Measuring greater than 26 MPa or less than 20 MPa	N/A	Trigger Event Occurred?				
						Is Triggered condition a threat to loss of containment?	N/A	N/A	N/A	N/A
	IW Tubing/Casing Annular Pressure	Pressure	Continuous	Anomalous pressure response	N/A	Trigger Event Occurred?				
						Is Triggered condition a threat to loss of containment?	N/A	N/A	N/A	
	DMW DHP (no longer Tier 1 in 2023 MMV Plan)	Pressure	Continuous	Anomalous pressure increase above background levels	deca tonne/day	Trigger Event Occurred?				
						Is Triggered condition a threat to loss of containment?			N/A	N/A

LEGEND

Trigger Event Occurred?

1 N/A - Month/Quarter is not in surveillance frequency, therefore no data gathered in the Month/Quarter to assess Trigger
2 Data evaluated - No Trigger Event
3 Uncertain - data not yet evaluated, requires further investigation to determine if trigger condition
4 Trigger Event - Assess Risk to Containment

If Trigger Event occurred, evaluation of trigger condition and further action

1 N/A - Trigger Condition was not observed
2 Potential Trigger was assessed - concluded not to be a threat to containment.
3 Uncertain - Trigger condition needs further technical evaluation to conclude if threat to containment
4 Trigger is threat to containment - analyze other Tier 1, -2, and if required Tier 3 technologies for other triggers. Follow active MMV plan for actions.

During 2023, Tier 1 monitoring identified two trigger events that instigated a deeper investigation of the data to determine if they were a risk to containment. Upon evaluation of the trigger events it was identified that neither situation indicated a loss of containment. As a result no further analysis of Tier 2 or Tier 3 was required to understand containment threat beyond their regular frequency. Each of these Tier 1 triggers and observations were reported through the subsequent P20 report for the respective month. In addition a brief summary on each of these triggers is provided below with reference to the section of the report where more detail is provided.

- ***2023 Q1/Q2 – DMW 8-19 DHP Anomalous pressure increase above background levels***: This trigger was a continuation of trigger state identified in the 2022 Status Report [15]. The Cooking Lake Formation pressure trend at the DMW 8-19 had an "*anomalous pressure response above background levels*" in October 2022. This pressure increase occurred as an outcome of the 8-19 DMW microseismic monitoring (MSM) array replacement and well bore inspection from September 19 to October 10, 2022. Although classified as trigger event, data indicate that this was a well bore condition and not a result of CO_2 migration outside the Storage Complex into the Cooking Lake Formation. In 2023, the localized 8-19 DMW DHP pressure recorded in the wellbore continued to equalize with the Cooking Lake Formation, eventually reaching a non trigger state in June 2023. Further commentary on this issue is provided in (4.3.2). The other Tier 1 Technologies did not detect any trigger events over this period.

- ***2023 Q4 – IW 8-19 Annulus Pressure, Anomalous pressure response***: There was a trigger event on IW 8-19 Annulus pressure in October 2023. An anomalous slow decline in annular pressure to total of ~ 1,000 kPa over a 2-month period was identified. The cause of this pressure drop was due to a small Nitrogen weep from the stem packing of a casing valve. As the loss of pressure was due to Nitrogen, it was not a loss of CO_2 Containment. The valve was serviced in November 2023, which resolved the weep and stabilized the pressure. Further commentary on this issue is provided in (4.3.3). The other Tier 1 Technologies did not detect any trigger events over this period.

4.3.1 IW DHP (Pressure monitoring Basal Cambrian Sand)

Continuous pressure data in the Basal Cambrian Sand via three injection wells are plotted for: IW 7-11 (Figure 4-1), IW 8-19 (Figure 4-2), and IW 5-35 (Figure 4-3). The pressure data has remained far below the regulated 30 MPa maximum bottom hole injection pressure [1]. Data associated with intervention work (e.g., Halite remediations), where the pressure data is not representative of CO_2 injection operations, has been removed from the plot.

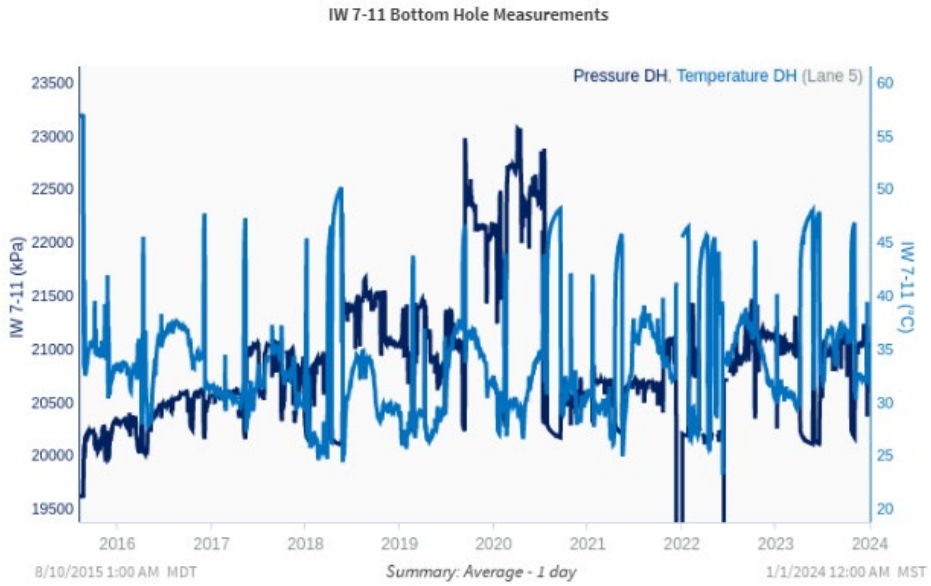


Figure 4-1: IW 7-11 Bottom Hole Measurements

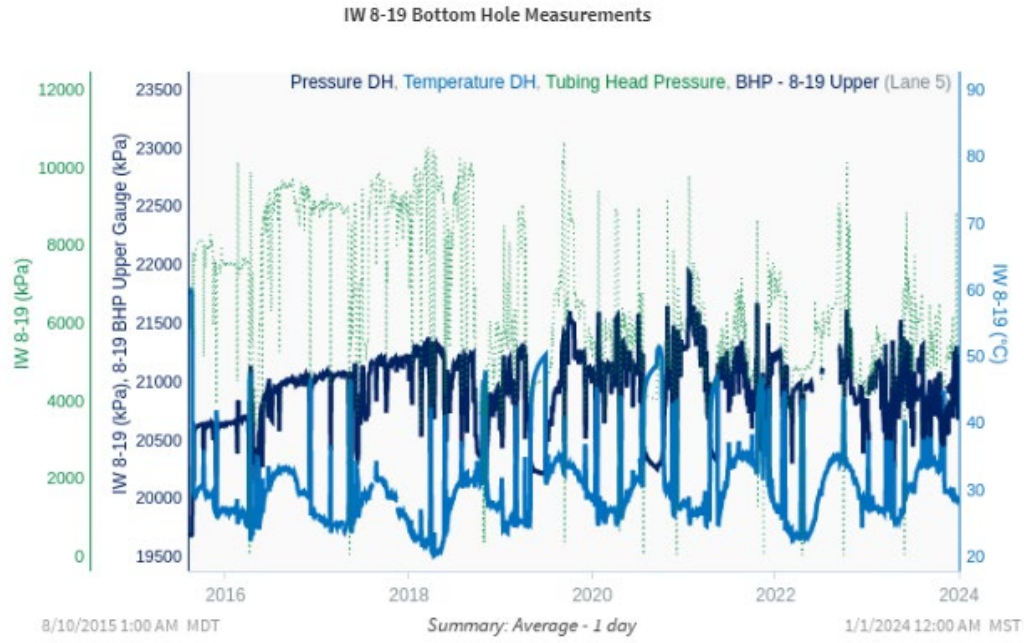


Figure 4-2: IW 8-19 Bottom Hole Measurements – Tubing Head Pressure added to demonstrate containment where there are gaps in DH Pressure measurement

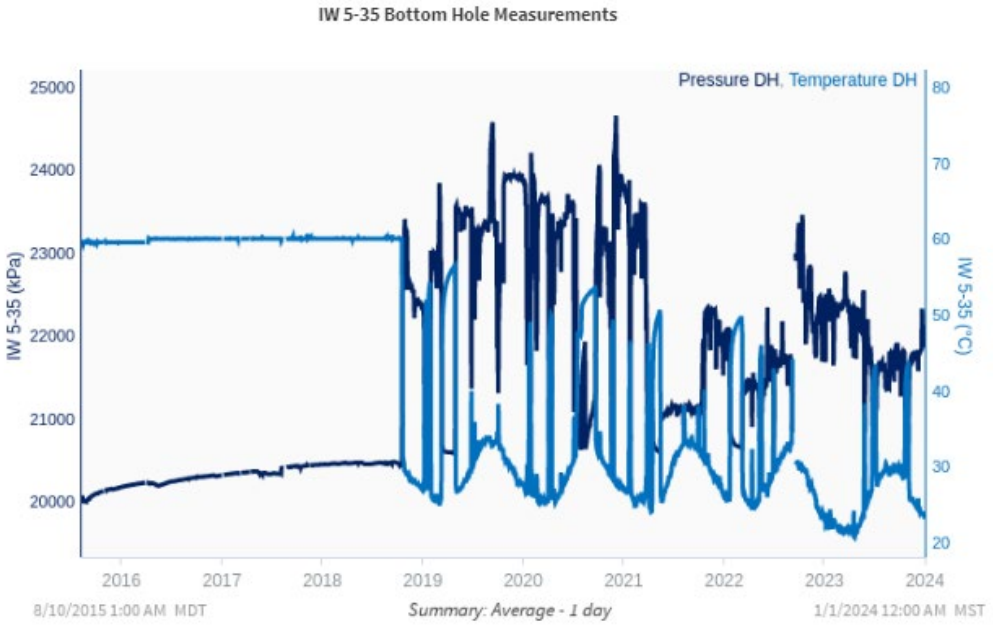


Figure 4-3: IW 5-35 Bottom Hole Measurements

In 2023 at the IW 8-19 location, there were time periods where the Primary 'Lower' DH pressure gauge was interpreted as reading erroneous data which was not reflective of actual physical conditions in the injection string. These erroneous data points have been removed from the DH Pressure plots (Figure 4-2). Further observation and context on these erroneous readings are provided below. There were no erroneous DH pressure readings on IW 7-11 in 2023, as identified in 2022, nor on IW 5-35.

As a result of the erroneous pressures responses on the Primary 'Lower' IW 8-19 DHP gauge, two mitigations were followed:

- A surface pressure (Tubing Head Pressure) operational alarm at 10 MPa activated in 2022 continued to be used throughout 2023. This conservative operational alarm ensures that DHP does not exceed 28 MPa. This conservatism can be observed referencing the historical DH pressure trends in Figure 4-2, especially in 2018, where the highest Tubing Head Pressures of 11 MPa resulted in DHP in only the 21 to 21.5 MPa range. No operational alarms occurred during the year confirming that DHP did not exceed trigger pressures of 28 MPa in 2023. This mitigation was communicated to and supported by the AER in September 2022 [15].

- The Secondary 'Upper' DH pressure gauge for IW 8-19 (10m shallower than the Primary 'Lower' gauge) recorded data in 1-minute intervals that was collected on a monthly basis, and was reviewed for high pressure events

as part of the monthly Trigger assessment. The Secondary 'upper' gauge read accurate DHP for the majority of the year.

A summary of 2023 Troubleshooting of IW 8-19 Primary 'Lower' downhole gauge system:

- Maintenance of the surface transmitter box confirmed that there is adequate communication between the gauge and the surface transmitter box, and that the programing in the surface transmitter box is working appropriately. The hypothesis for why the gauge has erroneous data is that the sensing port in the mandrel holding the pressure gauge is intermittently obstructed, prohibiting the gauge from sensing pressure changes in the well due to injection rate fluctuations. Therefore, the DH pressure reading is only changing as a result of temperature fluctuations from injection rate, which is why there is a strong correlation to temperature. This theory has been tested by initiating dynamic changes in the well (i.e., short shut-ins/restarts) and has, in some instances, returned the gauges to good data quality, where the DH pressure is following expectation and no longer correlating to temperature change.

- Two controlled shut-ins were completed, one on April 4th and another on April 17th. Both of these operational changes did not reinstate accurate pressure readings on the primary gauge.

- On May 30, 2023, the well was flushed with 160m^3 inhibited fresh water in an effort to wash the sensing port of any halite that may have precipitated in the well. After this intervention it was observed that the primary DH pressure data trended on the secondary DH pressure, which would support having resolved the erroneous data. However, the erroneous daily data fluctuations returned on June 8, suggesting the entire blockage was not removed. Although troubleshooting has worked in some instances, it has not consistently resolved the issue.

In Q4 2023, short periods of erroneous data of the Upper gauge were observed. In these periods, the DH pressure is fluctuating off trend from THP and Flow Rate. Again, using the THP as an additional monitoring tool, there were no points in the quarter where the DHP would have exceeded the trigger pressure condition.

At the end of 2023 the DH pressure data on both IW 8-19 Primary 'Upper' and Secondary 'Lower' continue to have intermittent erroneous readings, with troubleshooting of the gauges and transmitter continuing. The surface pressure

constraint continues into 2024 as a mitigation to ensure that DH pressure does not exceed the licensed limit.

4.3.2 DMW DHP (Pressure monitoring within Cooking Lake Fm.)

Continuous pressure data in the Cooking Lake Formation via three monitoring wells, DMW 7-11, DMW 8-19, and DMW 5-35, are plotted in Figure 4-4. A discussion of why the Cooking Lake Formation was selected as a deep pressure monitoring formation in the DMWs can be found in the First Annual Status Report, section 5 [2].

In the DMWs, an anomalous pressure increase above background levels is the trigger definition for the Cooking Lake Formation pressure data. Discussion on two distinct observations from this full field life data trend, Figure 4-4, are below:

- The small blips observed on the 7-11 and 5-35 DMWs in 2021 are due to new gauge installations. Additional description is included in the 2021 Annual Status Report [14].

- Additional description of the 1 MPa step change that occurred on the DMW 8-19 bottom hole pressure gauge as a result of a well intervention in 2022 is included in the 2022 Annual Status Report [15].

- In 2023, the DMW 8-19 bottom pressure gauge reading continued to fall off to re-align to background formation pressure. At the end of the year the reading was 9469 kPa, only 83 kPa from background pressure. This supports the comments made in the 2022 Annual Status Report [15] that there is a slow equalization rate between the well bore and the formation. There is no evidence of loss of containment from the BCS Formation.

- Thus far, pressure data has not given any behavior to warrant further investigation. The slow increasing pressure on the DMWs 5-35, 7-11 and historically the 8-19 well response is likely due to regional aquifer response to the production/injection activities in the Redwater-Leduc field. The trend is also consistent over all three wells, indicating a far-field response.

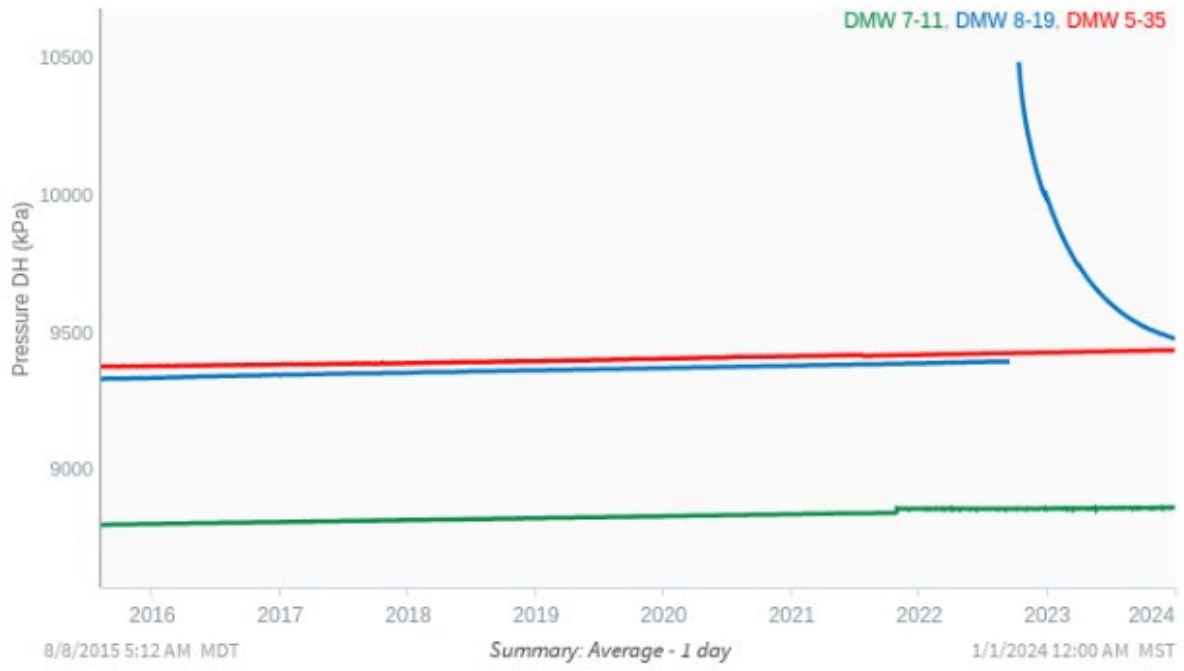


Figure 4-4: Quest deep monitoring well pressure history; (Note: 'steps' in trends mark new gauge installations)

Additionally, outside of the MMV program, pressure data in the Cooking Lake Formation is collected at Observation well 3-4 (Figure 4-5), in order to monitor far-field pressure responses to non-Quest activities in the Leduc Formation. The data shows a similar pressure response to the other DMWs in Figure 4-4. There are small data gaps due to a faulty recording system from the Observation well 3-4 bottom hole gauge in January and February 2023, and then again in December 2023. Otherwise the data is very consistent.

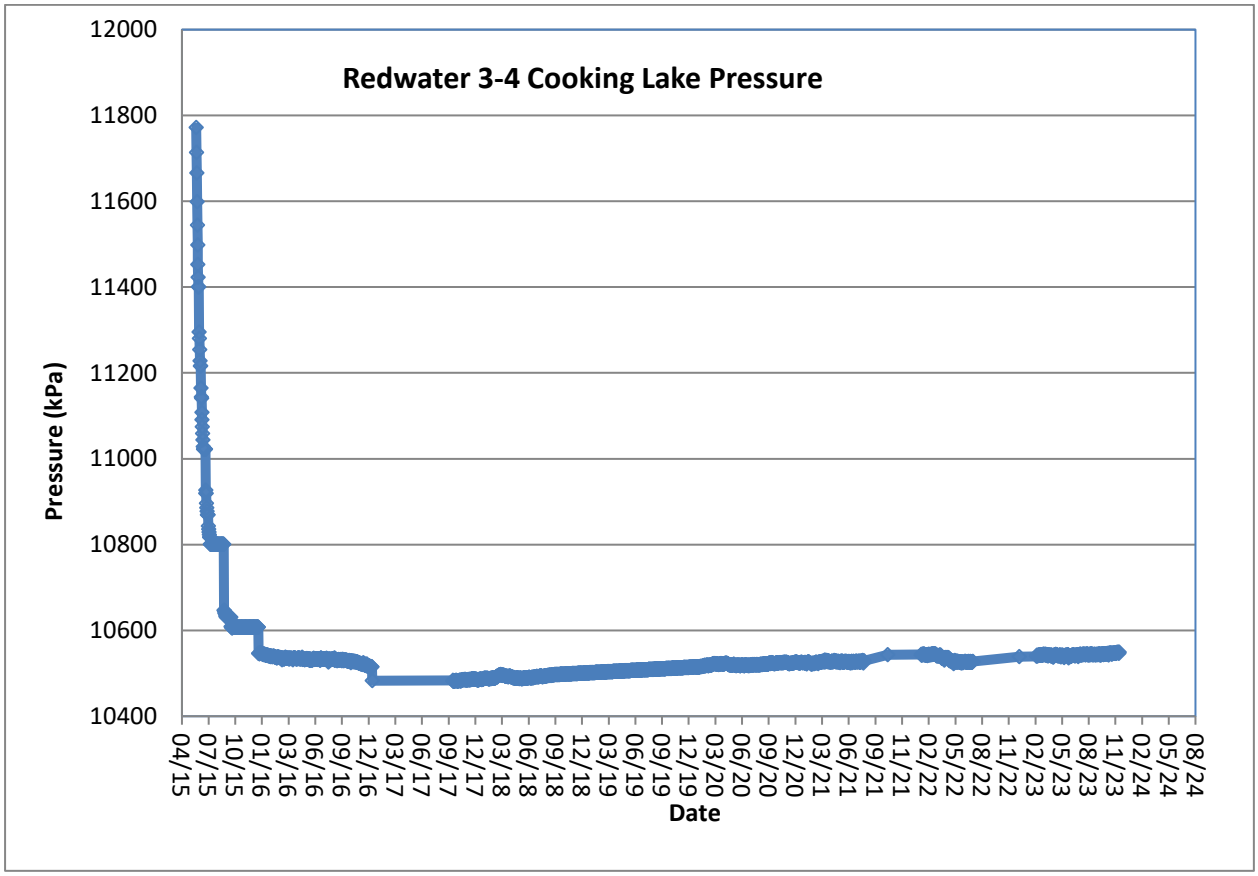


Figure 4-5: Quest Observation well 3-4 pressure history

4.3.3 IW Tubing/Casing Annular Pressure

The IW Tubing Head Pressure, IW Casing Annular Pressure, and IW Average Daily Flow Rate for 2023 are displayed in Figure 4-6, Figure 4-7, and Figure 4-8 below.

Bullets below each plot explain the data response. In summary, in 2023, there was no pressure response identified from the IW Tubing Head Pressure or IW Casing Annular Pressure that identified a CO_2 containment loss. Annular pressure data gathered during Injection Well interventions (e.g., Halite remediations) has been removed as it is not representative of the wells' integrity status.

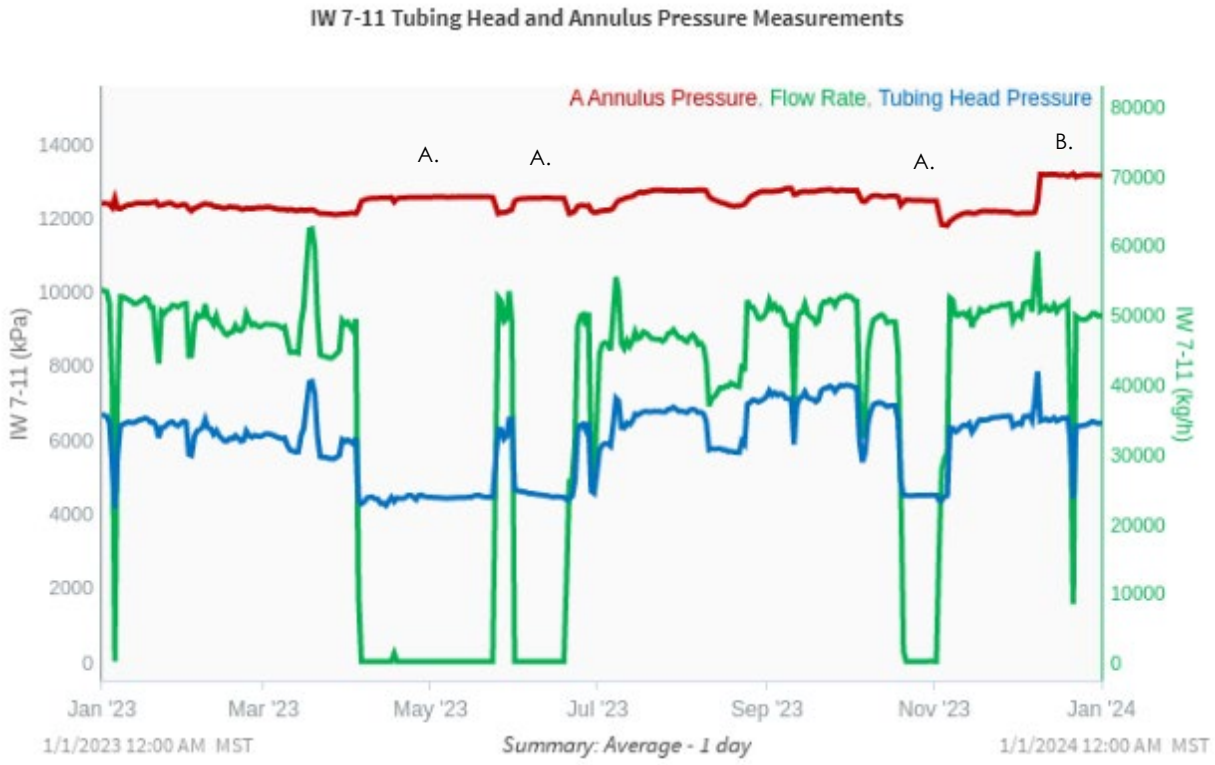
In Figure 4-6 through Figure 4-8, the IW Tubing Head Pressure displays normal behaviour with higher Tubing Head Pressures corresponding to higher injection flow rates. The IW Casing Annular Pressure, also known as casing head pressure, is the surface pressure measured in the production casing by the tubing annulus. The annulus contains a fluid, Drillsol, as well as a nitrogen (N_2) cushion above the Drillsol. The annulus pressure is monitored continuously. In addition to the continuous pressure monitoring, the annular Drillsol liquid level is measured annually and before/after service rig workovers. Both the continuous pressure

monitoring data and the annular Drillsol liquid level depth reference are incorporated into the assessment of the annulus integrity. To date, fluid level measurements indicate a stable Drillsol fluid level at approximately 200 meters in all three wells.

Figure 4-6, Figure 4-7, Figure 4-8, for IW 7-11, IW 8-19, and IW 5-35, respectively, show no indications of annulus integrity loss. In all 3 injection wells the annulus pressure is subject to fluctuations due to changes/increase in Tubing Head Pressures as well as with changes to injection and ambient temperature. Over time, a slow decrease in the nitrogen cushion pressure may occur that is well within the definition of the Packer Isolation Test leak rate criteria. N_2 levels are topped up on an annual basis to ensure a stable cushion over the Drillsol fluid.

- IW 8-19 (Figure 4-7) and IW 5-35 (Figure 4-8) show no data during the halite remediation treatments. The practice during these operations is to reduce the annulus pressure to 1 MPa in an effort to reduce stress and pressure on the casing as a result of pumping hot water for these treatments. The annular pressure is then increased after the job with the attempt to match the pre work annular pressure, but due to wellbore cool down, it does not always match the previous pressure. The drop in annular pressure between pre and post halite remediation does not indicate a loss of annular pressure containment.

- IW 8-19 (Figure 4-7) shows a slow decrease in annular pressure between September and November 2023. This was caused by a small Nitrogen weep through the stem of a casing valve. The valve was greased and the weep was stopped. Some further reduction is observed after this repair due to further drop in ambient temperature as a result of seasonal weather change. During the annual Packer Isolation Test in December 2023, the valve was fully inspected and greased. No further pressure loss was observed. In addition, the annulus was pressure tested and met the required criteria for a packer isolation test. As this weep was through a casing valve, it is not related to a CO_2 barrier and thus does not impact CO_2 containment.



Points of Interest:

A. Well shut-in for operational reasons resulting in A annulus pressure increases as a result of coming back to geothermal gradient

B. 7-11 Perform Annual Packer Isolation Test. Top up A annulus nitrogen pressure as per SOP.

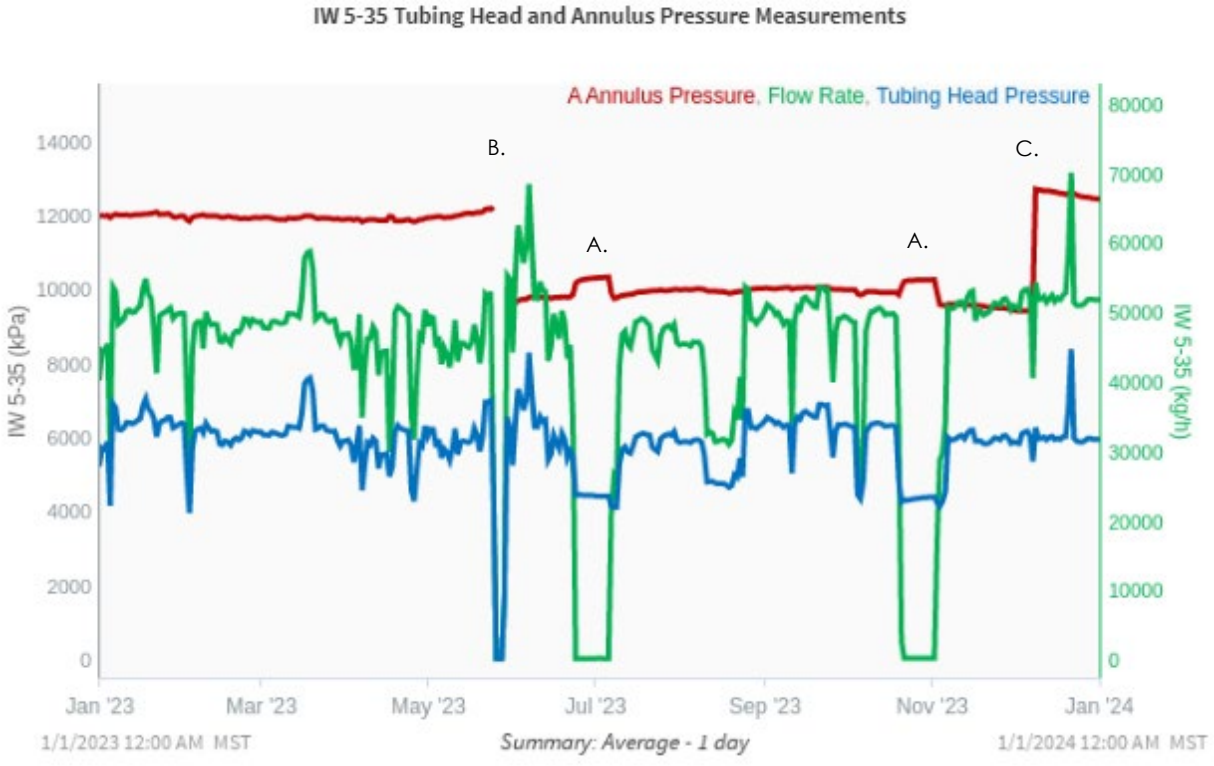
Figure 4-6: IW 7-11 Tubing Head and Annular Pressure



Points of Interest:

A. Well shut-in for operational reasons resulting in A annulus pressure increases as a result of coming back to geothermal gradient
B. Small halite remediation wash in effort to remediate erroneous DHP data
C. Identified small weep on A annulus valve of Nitrogen from annulus. Greased and repaired weep.
D. 8-19 Annual Perform Packer Isolation Test. Top up A annulus nitrogen pressure as per SOP

Figure 4-7: IW 8-19 Tubing Head and Annular Pressure



Points of Interest:

A. Well shut-in for operational reasons resulting in A annulus pressure increases as a result of coming back to geothermal gradient

B. Perform halite remediation to improve injectivity performance.

C. 5-35 Perform Annual Packer Isolation Test. Top up A annulus nitrogen pressure as per SOP

Figure 4-8: IW 5-35 Tubing Head and Annular Pressure

4.4 Assessment of MMV objective 'Containment' - Tier 2

No trigger events were identified through Tier 2 monitoring during 2023 that would indicate a loss of containment, and the Tier 2 activities continue to support the demonstration of containment from Tier 1 activities in (4.3).

The Tier 2 technologies address potential critical risks to loss of containment, though less directly tied to the Storage Complex. These technologies have a longer sample time or surveillance frequency, with an analysis period and longer response time to the trigger event. These barriers are actively maintained.

4.4.1 Operator Rounds

In 2023, Operators did not identify any anomalous observations that would suggest a threat to containment.

Above-ground CO_2 levels are monitored on a daily basis as part of visual and audible checks during operator daily rounds. In the past operator observations have demonstrated the ability to detect very small leaks from surface injection infrastructure.

4.4.2 Seismicity Monitoring (SM)

The microseismic array has been functioning continuously since the start of injection, with the exception of an array replacement conducted from September 20 to October 11, 2022. In 2023, all Locatable Events (Table 4-3) were within the basement. This is evidence that the top seals of the Storage Complex remain intact and provide effective vertical isolation of the CO_2 from the overburden. All events have been reviewed by a professional geophysicist and a regular surveillance schedule has been followed as per standard operating procedures. As this is a cumulative dataset, our third party microseismic contractor updates and reviews the full dataset on a regular basis. This quality control can result in small updates to the classification of triggers and event attributes (e.g., location, magnitude), which are captured in subsequent reports.

A report is received daily from the processing contractor, with the date, number of triggers, and breakdown of trigger type as defined in Table 4-3. Figure 4-9 shows the daily statistics for categorized events in 2023. Quest also continues to monitor beyond the AOR out to a distance of 50km from the downhole monitoring array. Events beyond the AOR and within the 50km radius are defined as either "Potential Regional Events", "Locatable Regional Events" or "Single Phase Regional Events" (Table 4-3). APPENDIX B: 2023 SEISMICITY LOCATABLE EVENTS documents the location, time, formation and moment magnitude (M_W) information for all Locatable Events within the Quest AOR recorded to date. Figure 4-10 and Figure 4-11 are plan and depth views respectively of all Locatable Events in reference to DMW 8-19 (see Table 2-1 for well information).

Table 4-3: Trigger classifications used for the Quest Project and trigger totals from January 1, 2023 to December 31, 2023

Trigger Type	Description	Total
Automatic	Hourly triggering intended to ensure health of the system	8676
High Frequency Noise	Caused by elevated, high frequency background noise	38333**
Acoustic	Caused by energy travelling up and down the wellbore	12882**
Hammer Tap Test	Tap test on the wellhead to test geophone functionality	0
Locatable Events	Events in the AOR (defined as ≤ 10km radii from injection well heads) with clear P- and S-wave arrivals exhibiting waveform characteristics typical of microseismic events	79
Single-Phase Events	Seismic events that lack significant P- or S-wave arrivals and cannot be located	100
Surface	Events that originate at the surface	14
Electrical	Caused by electrical interference	6180**
Vibes	Vibroseis shots	0
Locatable Regional Events	Seismic events that occur between 10km radii from IW wellheads and no greater than 50km* from the downhole array in DMW 8-19	235
Single-Phase Regional Events and Potential Regional Events	Includes seismic events where one or both phases cannot be confidently picked but are estimated to locate beyond the 10km AOR and within the 50km radius from the downhole array.	182
Total		66681

*__Note__: The radius has been updated since the 2022 report to include the full Quest sequestration lease boundary. **An increase in electrical, acoustic and high frequency noise event count has been detected from May to December 2023. This resulted in a higher yearly noise event count for 2023 relative to previous years. The source of the increase in noise was investigated and it is believed to be caused by mechanical settling of the array post Q4 2022 replacement. Noise levels have returned to low counts with a total of 25 noise events occurring between December 13, 2023 and February 13 2024.

Since January 2017, sustained low-level moment magnitude seismicity has been observed within the Quest AOR. All of these seismic events have been located within the Precambrian basement (Figure 4-10, Figure 4-11). The seismic event moment magnitudes show a nearly normal distribution (Figure 4-12), have an average moment magnitude of -0.71, a maximum moment magnitude of 0.98

detected on August 31st 2017, and have a typical seismic event occurrence rate of 1-3 events per week.

79 Locatable Events were detected in 2023, which is down from 91 Locatable Events reported in both 2021 and 2022. The Locatable Event timing shows no direct correlation to injection pressure variations and none of the Locatable Events present a risk to CO_2 containment. The moment magnitudes of the Locatable Events have had a consistent distribution since 2017 (Figure 4-14).

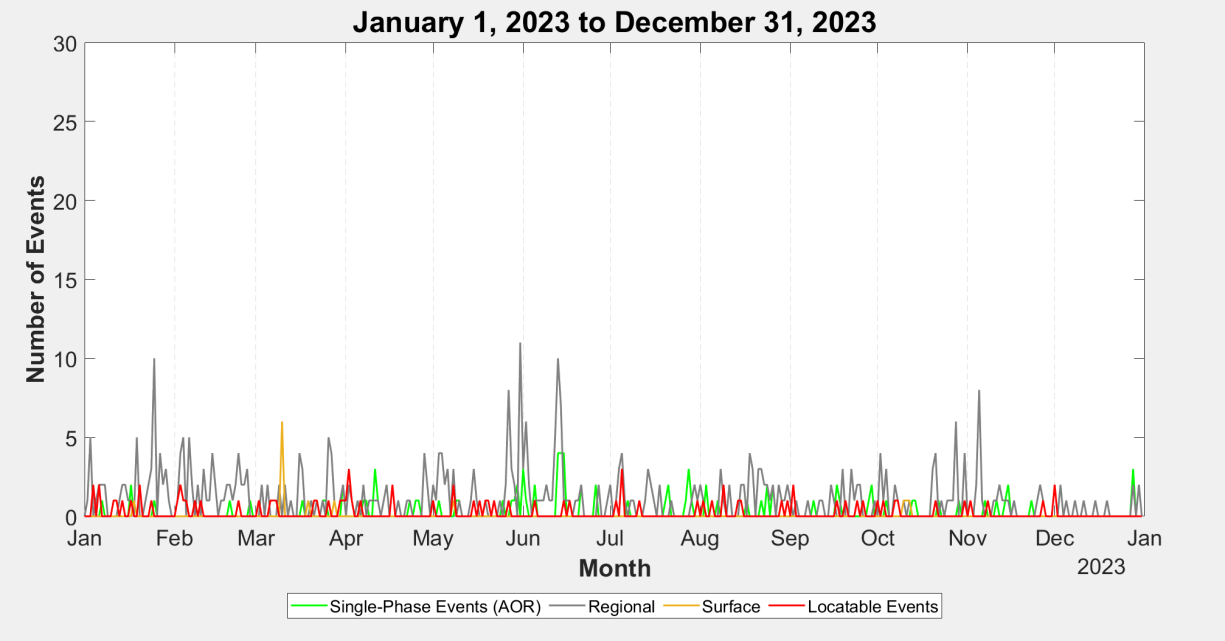


Figure 4-9: Daily event counts of seismicity categorized events in 2023. "Regional" events include locatable regional, single phase regional and potential regional events as defined in Table 4-3

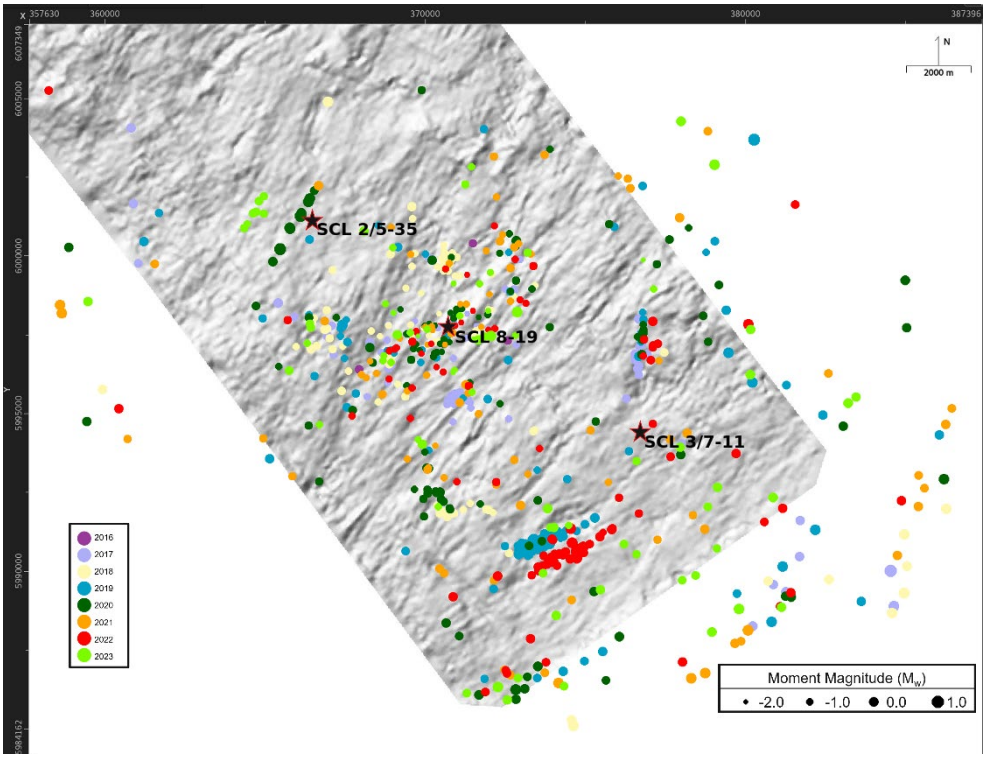


Figure 4-10: Plan view of all 756 Locatable Events recorded from 2015 - 2023 with the top Precambrian surface from 3D seismic (grey background)

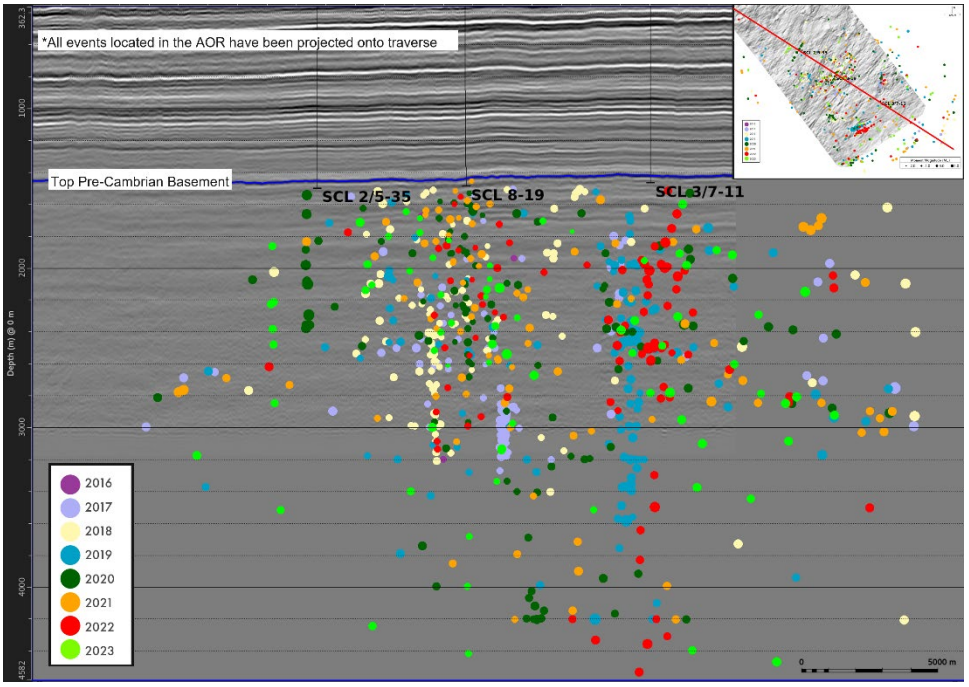


Figure 4-11: Depth view of all 756 Locatable Events recorded 2015 - 2023. All events have been projected from out of plane onto traverse therefore location and depth relative to basement interface are not indicative of actual depth

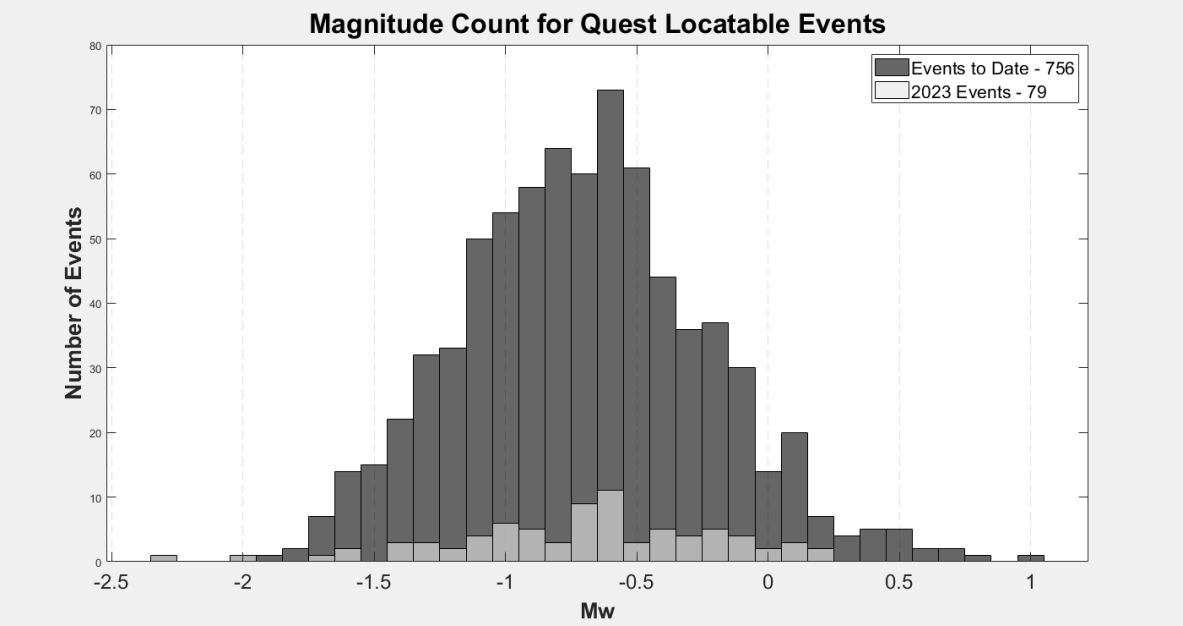


Figure 4-12: Histogram of moment magnitude (M_w) of Locatable Events 2015 - 2023; 756 Locatable Events. Overlay of 2023 Locatable Events; 79 Locatable Events

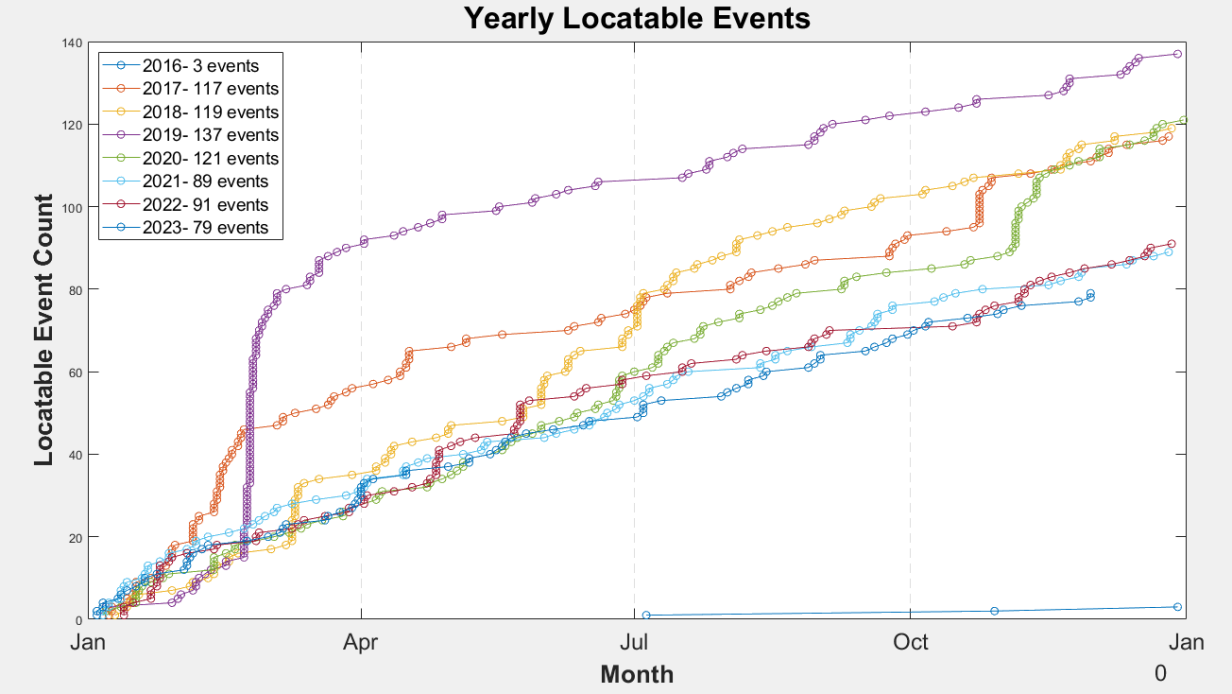


Figure 4-13: All Locatable Events recorded from November 2014 to December 31st, 2023 are plotted with each colour representing a unique year

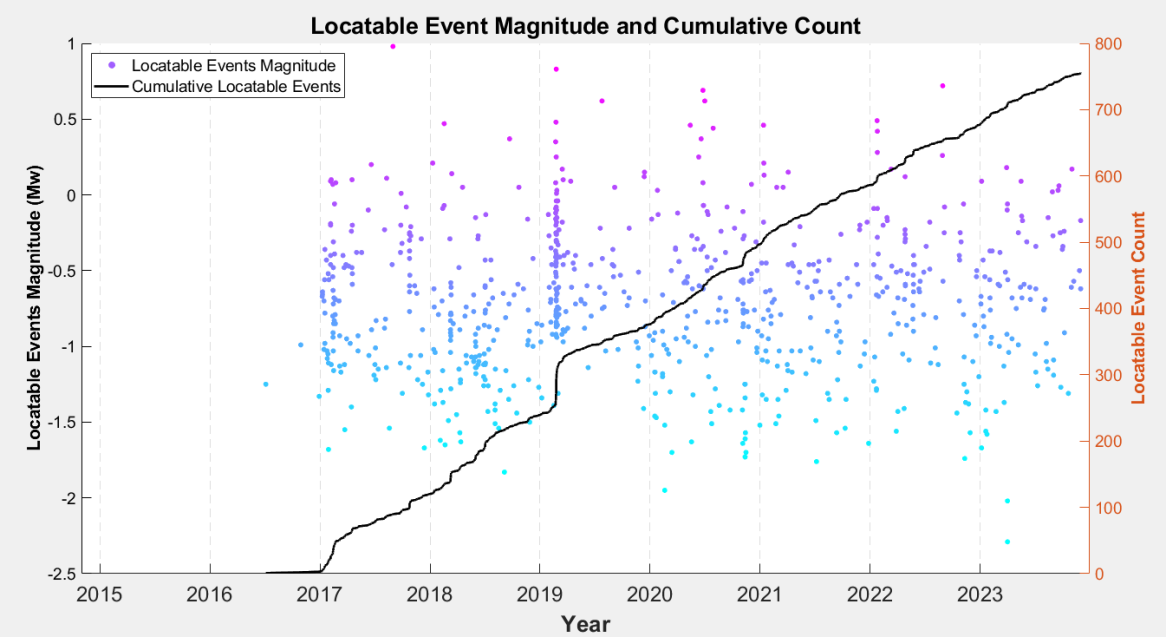


Figure 4-14: All Locatable Events recorded from November 2014 to December 31st, 2023 are plotted and coloured by moment magnitude (M_w). The black curve is the cumulative count of Locatable Events

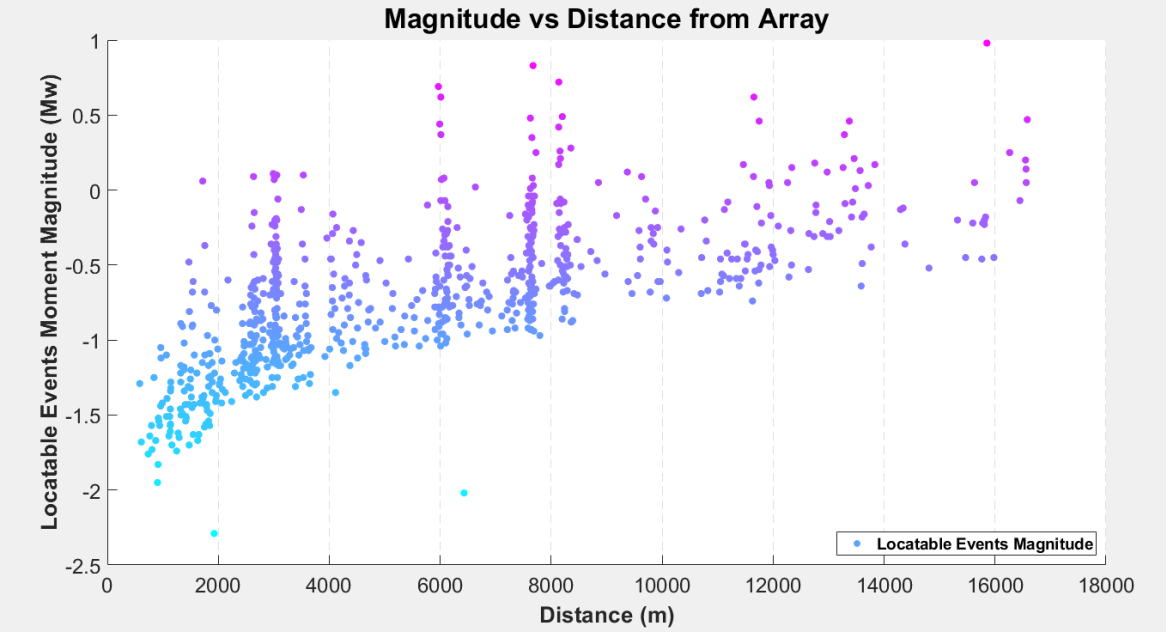


Figure 4-15: Locatable Event moment magnitude (M_w) vs Distance from array [m], recorded from November 2014 to December 31st, 2023. All Locatable Events are coloured by moment magnitude. Increased monitoring distance impacts the ability to identify smaller magnitude events

Locatable Regional Events are locatable events beyond the 10km AOR but within 50km from the downhole array which have been detected at Quest since 2014. The Locatable Regional Events are detected by the 8-level 15Hz geophone array and a moment magnitude can be estimated. Locatable Regional Events have a higher event count over the monitor period and a larger average moment magnitude than Locatable Events. The regional locatable catalogue shows an average moment magnitude of 0.33, a maximum moment magnitude of 1.96 detected on April 23th 2023, and have a typical occurrence rate of 2-4 events per week.

Locatable Regional Events have high location uncertainty as they are detected by the Quest downhole geophone array, which is designed to monitor for seismicity in the Storage Complex within the Quest AOR, which is more proximal to the geophones. 234 Locatable Regional Events were detected in 2023 (Figure 4-16).

Locatable Regional Event moment magnitudes since 2015 show a slightly skewed distribution. The distribution shape is influenced by the difficulty of detecting smaller magnitude events due to diminishing signal-to-noise with greater distance from the array (Figure 4-16).

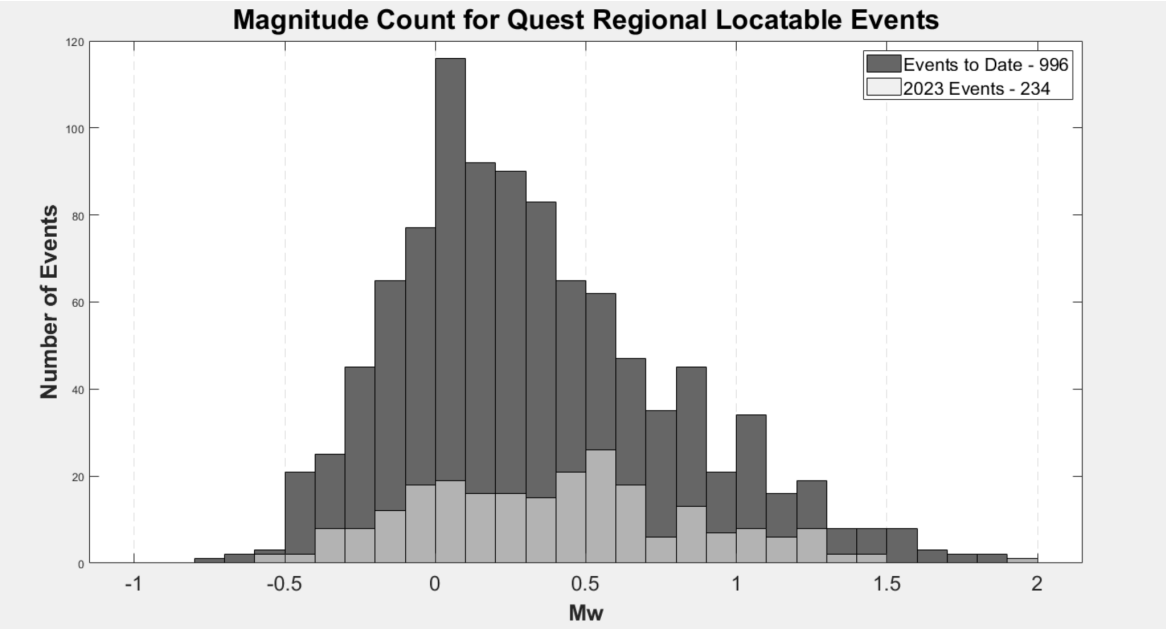


Figure 4-16: Histogram of moment magnitude (M_W) of Locatable Regional Events 2015 - 2023; 1005 total Locatable Regional Events. Overlay of 2023 Locatable Regional Events; 234 Locatable Regional Events

4.4.3 Distributed Temperature Sensing (DTS)

DTS data for the injection wells are shown in Figure 4-17 (IW 8-19), Figure 4-18 (IW 7-11) and Figure 4-19 (IW 5-35). The injection wells were shut-in several times during the year.

IW 8-19 was shut-in four times for more than 48 hours in 2023:

- March: Shut-in during pressure gauge troubleshooting
- April: Shut-in during the HMU turnaround
- August: HMU capture issues caused the well to be shut-in
- October: Compressor motor was replaced shutting-in all three wells

IW 7-11 was shut-in three times for more than 48 hours in 2023:

- May and June: Pressure fall-off test was performed over two shut-in periods
- October: Compressor motor was replaced shutting-in all three wells

The IW 07-11 fiber optic cable in the junction box was damaged by rodent activity starting November 15th leading to full failure November 19th. The failure manifested itself by returning to large negative default temperature values visible as the dark blue interval in the waterfall plot in Figure 4-18. The cable was repaired on December 14th.

IW 5-35 was shut-in three times for more than 48 hours in 2023:

- May: Halite remediation took place
- June/July: A fall-off test was performed
- October: Compressor motor was replaced shutting-in all three wells

DTS data collected from the injection wells showed as expected behaviour. The temperature changes were consistent with the thermal effects of 'cooling' due to injection and normal geothermal warming when injection stopped. Other changes observed in the heatmaps correspond to thermal effects that occur during times of reduced injection and seasonal changes in surface temperature.

There is no evidence of any temperature anomalies throughout the data that would indicate a loss of integrity or out of zone injection.

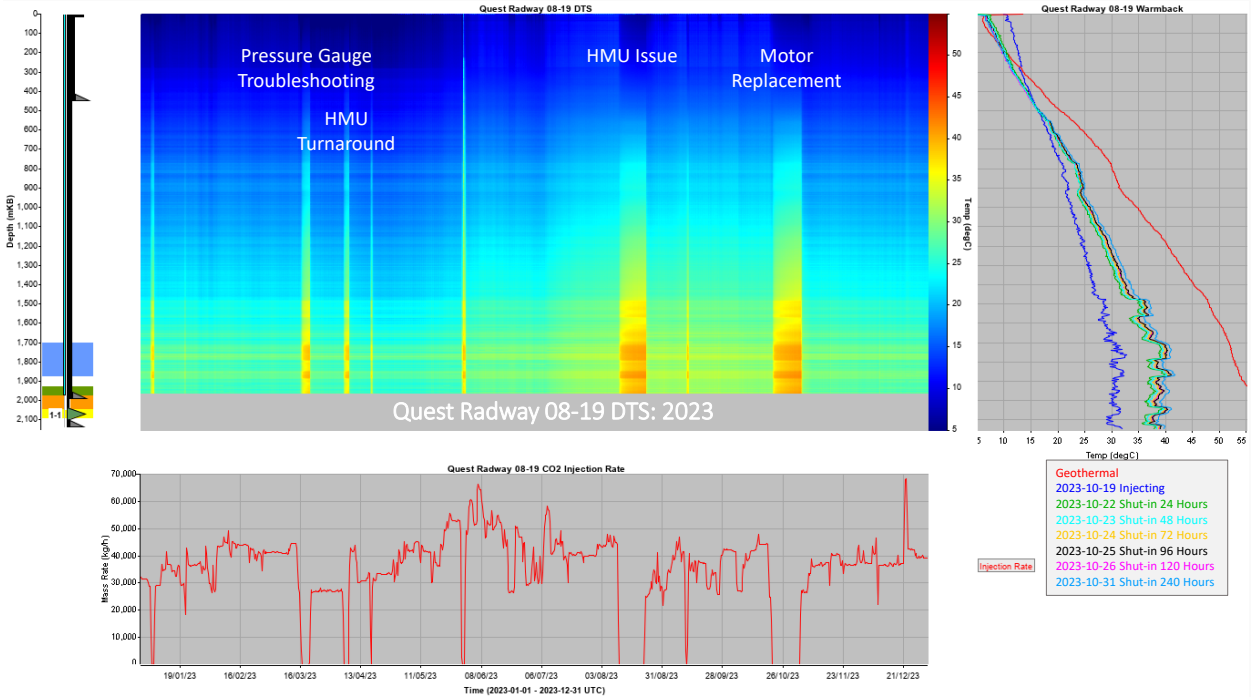


Figure 4-17: Injection well 8-19 DTS data. The heatmap shows DTS data collected during 2023 with a temperature scale from 5° to 55°C. The graph on the right shows individual traces for the warmback analysis from the motor replacement period. The graph at the bottom shows the CO_2 injection rate in [kg/h].

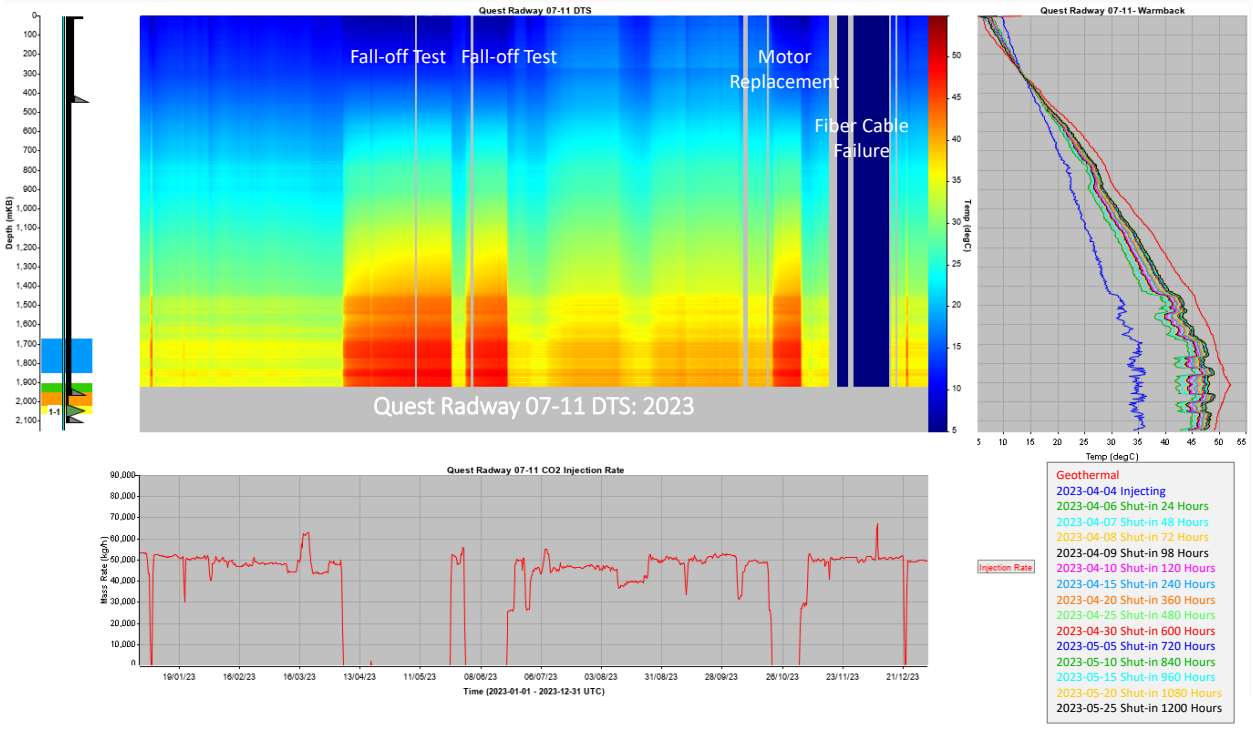


Figure 4-18: Injection well 7-11 DTS data. The heatmap shows DTS data collected during 2023 with a temperature scale from 5° to 55°C. The graph on the right shows individual

traces for the warmback analysis from the first fall-off test period. The graph at the bottom shows the CO_2 injection rate in [kg/h]. The dark blue interval in November-December shows large negative default values after the fiber optic cable failed.

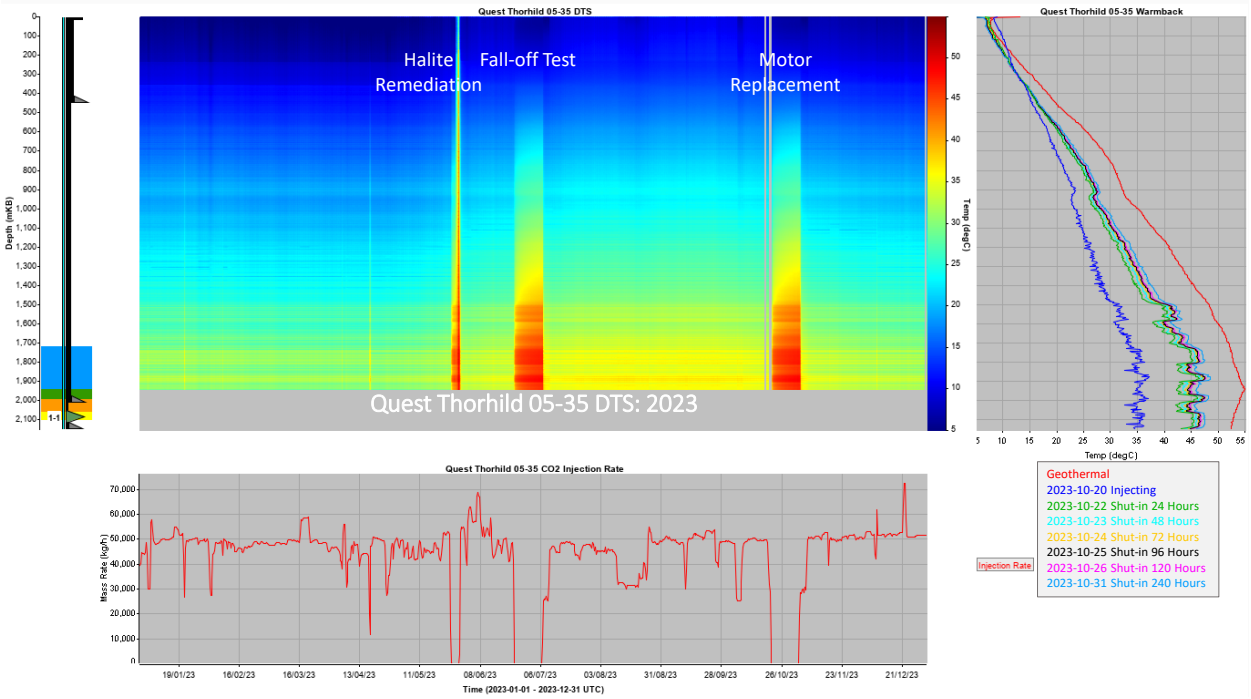


Figure 4-19: Injection well 5-35 DTS data. The heatmap shows DTS data collected during 2023 with a temperature scale from 5° to 55°C. The graph on the right shows individual traces for the warmback analysis from the motor replacement period. The graph at the bottom shows the CO_2 injection rate in [kg/h].

4.4.4 Time Lapse Casing and Cement Integrity Logs

No casing and cement integrity logs were run as it was not required per the 2020 MMV Plan [10] or the 2023 MMV Plan [11].

4.4.5 Hydraulic Isolation Logs

No hydraulic isolation logs were run as it was not required per the 2020 MMV Plan [10] or the 2023 MMV Plan [11].

4.4.6 Packer Isolation Testing

In 2023, packer isolation tests were performed on all three injection wells and all three wells passed, verifying isolation. Reference (2.4) for further information on results.

4.4.7 Surface Casing Vent Flow and Gas Migration

Surface Casing Vent Flow (SCVF) and Gas Migration (GM) monitoring had been considered a Tier 3 Technology as per Quest 2020 MMV Plan [10]. In 2023 this

testing was re-defined as a Tier 2 Technology as per Quest 2023 MMV Plan [11] to align current surveillance and sample acquisition strategy more closely with the definitions in the tiering structure. In 2023, there was no compulsory surveillance frequency event nor Tier 1 triggers that required further investigation into SCVF and/or GM.

As part of the 2020 MMV [10] and 2023 MMV [11] plans, as based on data collected from 2013 through 2019, the AER approved [13] the requirement to perform SCVF and in-soil gas migration testing in 2021 on a 2-year frequency and in 2024 on a 3-year frequency. As per this approval, SCVF and GM testing was not performed in 2023. The results of the most recent 2021 campaign were included and submitted in the 2021 Annual Report [14]. The next planned SCVF and GM testing campaign at the Injector Wells and their accompanying Deep Monitoring wells will be in 2024.

Observation Well 3-4, located in the South of the SLA, outside of the AOR/MMV and away from the injector well CO_2 plumes, is also monitored for SCVF. A SCVF was detected in 2021 and at this time ongoing annual testing is being completed in accordance to AER Directive 87. In summer of 2023 a follow-up test to investigate the status of the SCVF on Observation Well 3-4 was completed and confirmed that the SCVF had died out.

4.5 Assessment of MMV objective 'Conformance'

4.5.1 2023 Seismic data Interpretation (2DVSP, SEIS3D)

Throughout 2023 the 2DVSP at IW 5-35 and the time-lapse SEIS3D dataset covering IW 5-35 and IW 8-19 were analysed and compared. Initial interpretation of both the IW 5-35 2DVSP time-lapse image (Figure 4-20) and time-lapse SEIS3D image show a strong visible anomaly associated with the CO_2 plume, interpretable over the noise floor in both datasets. The time-lapse interpretation results from both datasets were compared and produced similar results in regard to plume size and shape, confirming the robustness of 2DVSP for early injection plume monitoring. On the Northeast side of the anomaly, there is a difference noted between the two datasets (Figure 4-21). This difference is due to the anomaly moving outside of the reliable imaging of the 2DVSP dataset.

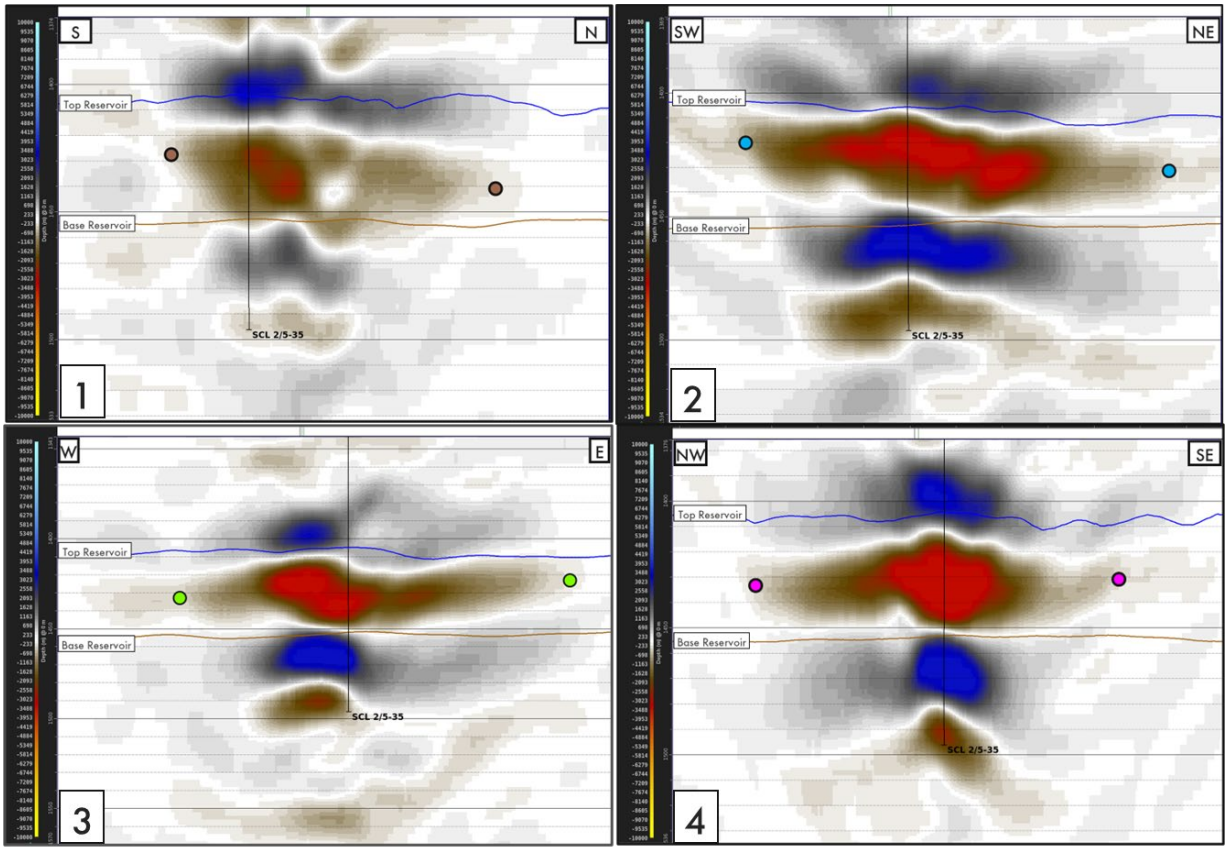


Figure 4-20: 2DVSP quadrature difference volumes, interpreted edge of plume indicated. See Figure 4-21 for map view

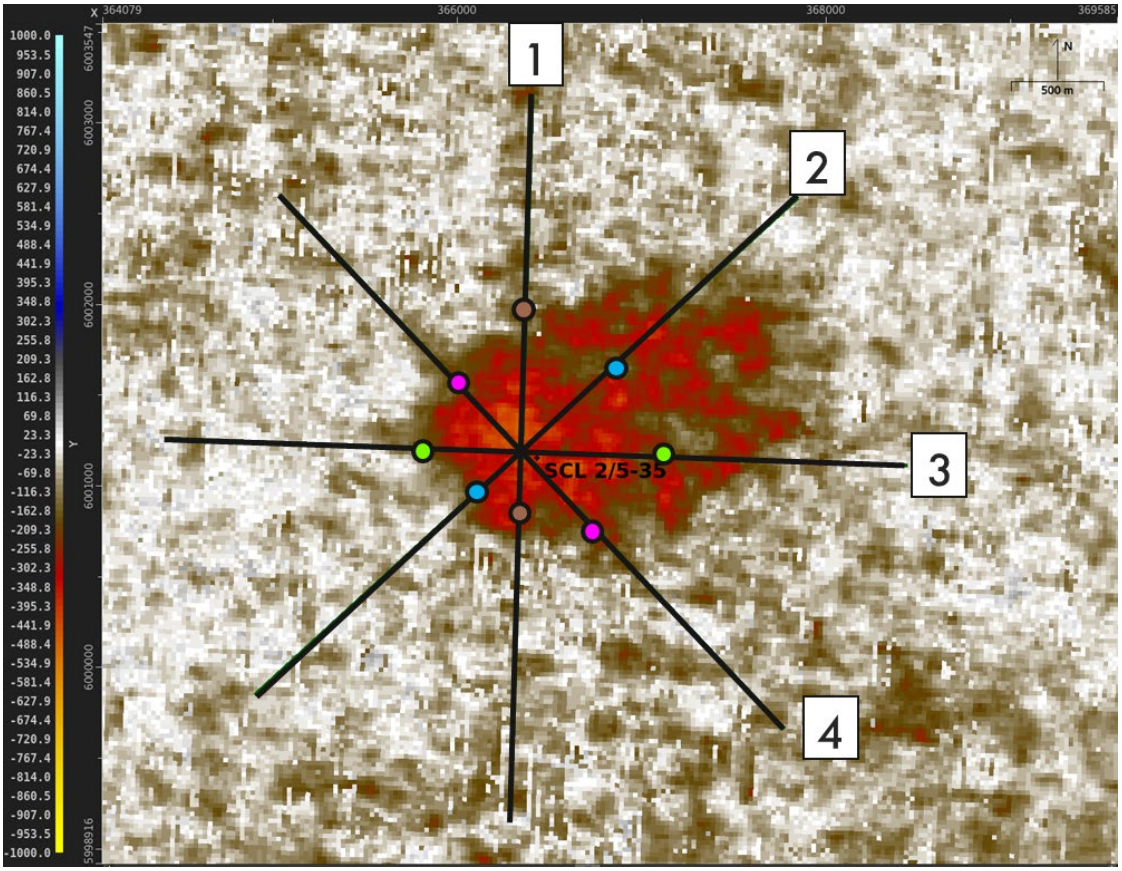


Figure 4-21: Map view of plume edge interpretation on 2DVSP underlain by surface seismic time-lapse response

The time-lapse anomaly associated with the plume has been interpreted to have significant asymmetry with a long axis at an azimuth of approximately 63° and 55° for IW 5-35 and IW 8-19, respectively. Interpretation of the anomalies shows the plume growth is primarily towards the NE (up-dip direction). There appears to be no indication of zero transmissibility barriers near the wellbores of IW 5-35 and IW 8-19.

The interpreted plume extent at the time of the 2021 seismic campaign has been compared with the model predictions and the size conforms to the reservoir modelling predictions within acceptable uncertainty ranges. A seismic close the loop project is currently underway that will continue to refine these early interpretations. Utilizing the time-lapse 3D anomaly and the forward modelled synthetic response derived from the saturation model, the reservoir model will be updated to enhance the reservoir model's predictive power. This project is expected to be completed in 2024. The underlying geologic drivers for the plume growth rate and geometry are still being investigated as part of the seismic close the loop exercise.

4.5.2 Future seismic acquisition campaign frequency

As of 2022, the edge of the seismic anomaly associated with the plume has extended beyond the imaging extent of the 2DVSP at each of the injection wells. As a result additional 2DVSP surveys will not be acquired at the injection wells for the purpose of conformance. 2DVSP continues to be a viable technology for containment monitoring within the image area. A decision to deploy a 2DVSP acquisition for the purpose of containment monitoring may be made if analysis of Tier 1 and Tier 2 technologies indicate the need. Work is underway to close the loop between the measured time-lapse response and the reservoir model to refine the reservoir model for plume forecasting. The results of this will be used to determine any future time-lapse acquisition for the purpose of monitoring conformance.

4.5.3 Downhole Pressure Temperature Gauges

As discussed in (3.4.2), dynamic pressure modeling indicated that the entire 27 MT of CO_2 can be injected while keeping the stabilized shut-in reservoir pressure below 26 MPa, which is the pressure limit specified in clause 5(a) of the Approval [1]. Despite some periods of erroneous data from the DH Pressure gauges on IW 8-19 (4.3.1), the available accurate data gathered from the downhole gauges was used to calibrate the dynamic model that demonstrates pressure and CO_2 plume conformance. Refer to (3.4) for further details.

4.5.4 InSAR

As a Tier 3 Technology, as per MMV Plan 2023 [11], InSAR data is only analyzed in the event of another MMV technology observation that would indicate the need for further investigation. In 2023 Radarsat-2 satellite images were collected monthly, but not processed nor analyzed.

4.6 MMV Performance and Plan Issues

The 2020 MMV Plan [10] was approved 25 November 2020 and was in effect until 24 November 2023. The 2023 MMV Plan [11] implementation was approved and in effect from 25 November 2023 and will be in effect until 24 November 2026.

The following issues were identified that impacted the performance of the MMV Plan in 2023:

- Intermittent erroneous DH pressure data on the IW 8-19 DH pressure gauges. See (4.3.1) for commentary and mitigations.

- DMW 8-19 Pressure increase above baseline pressure as a result of well intervention in 2022 (4.3.2). Pressure trend continued to fall off back to baseline pressures in 2023, and by middle of the year 2023 was considered no longer in trigger state.

- The IW 07-11 fiber optic cable was damaged by rodent activity in the junction box (4.4.3) starting November 15th leading to full failure November 19th. The cable was repaired December 14th. The data for this time period is not useable. There was no warmback period for DTS data analysis during this time.

- In November 2023 GWW UL1/7-11 intermittently lost data connectivity. First mitigation was to install a new battery. Issue continued to persist after battery replacement. It is anticipated that the cable is damaged, which will be replaced in Q1-2024 to resolve the issue. GWW 1F1 7-11 also started to show data recording issues in Q4 with conductivity which was resolved when the AquaTROLL sensor was replaced in December 2023.

5 FUTURE MMV ACTIVTIES

The following activities describe future MMV activities to pursue:

- Continue time-lapse interpretation of seismic data associated with the Q4 2021 seismic acquisition campaign for reservoir model optimization. The outcome will support plume forecasting as well as the recommendation on potential requirements and/or proposed timing for additional seismic surveys
- Update (history-match) dynamic reservoir models with year-end injection volumes
- Continued analysis and optimization of Lightsource data
- Optimization of HMP – assess hydrosphere monitoring activities to look for continued improvement and efficiency gains.

5.1 Changes to approved 2020 MMV Plan

The 2020 MMV Plan [10] was enacted on 25 November 2020 and was valid until 24 November 2023.

There were no changes in 2023 to the 2020 MMV Plan. In November, the active MMV Plan transitioned to the newly approved 2023 version.

5.2 Approved Changes in the 2023 MMV Plan

The 2023 MMV Plan [11] was approved on 8 November and came into effect from 25 November 2023; it will be in effect until 24 November 2026.

The following changes to the 2020 MMV Plan were approved in the 2023 MMV Plan [11]:

- Additional sections as per Directive 65, Appendix P [16] – e.g., adaptation of Key Principles, ensure objectives are clear and expectations met at all project stages, inclusion of Seismicity Risk Assessment, etc.
- Seismicity Risk Assessment - which included:
    - Seismicity Bowtie including a definition of a Seismicity Top Event
    - Implementation of a Seismic Response Protocol
    - Enhanced seismicity monitoring (Tier 3)
    - Introduction of a Seismicity Monitoring Area (SMA – a 50km radius around the central IW8-19)
- Well Integrity logging – frequency change from 5 to 15 years
- Updated Tiering for identified technologies:
    - Deep Monitoring Well – pressure monitoring in Cooking Lake Formation was changed from Tier 1 to Tier 2

    - SCVF and GM testing was changed from Tier 3 to Tier 2 to better align with surveillance definition of Tier 2 with the intention to work toward a 5-year frequency
    - Temperature and Pulsed Neutron Logs (Hydraulic Isolation Logging) as well as IW Cement Inspection (Cement Bond Log) was changed from Tier 2 to Tier 3 (future activity on a 'As Required' basis)
- Change in Operating Procedures and Response Times to Trigger Events which outline how long it might take to turn an injector well into a safe state (fast response) and highlight that a final repair might take months
- Lightsource detection limit update (from [45kg/hr] lab value to [300kg/hr] field value)

5.3 Need for Monitoring Near Periphery of Pressure Build-up

Approval No. 11837C [1] Condition 10(i), requires that each annual status report addresses the need for additional monitoring (wells or other) towards the periphery of the pressure build-up area later in the project life.

At this time, Shell considers the following unnecessary: additional monitoring wells near legacy wells, deep monitoring wells, or groundwater wells situated towards the periphery of the pressure build-up zone. There is no indication from injection or well data that BCS pressure will increase to levels that would provide a threat to containment (3.4.2). As a result, it is unlikely that additional monitoring wells will be required during the life of the injection scheme.

Need for Additional Monitoring Wells Near Legacy Wells

Currently, additional monitoring wells near legacy wells are considered unnecessary, as there is no indication from injection and well data that BCS pressure will increase to levels that would provide a threat to containment near existing legacy wells (3.4.2 and 3.4.3).

Monitoring at Injection Wells

In accordance with the Approval, Shell will use each of the three injection wells as pressure monitoring wells when feasible. IW 5-35 was monitoring pressures in the BCS until the well was activated as an injection well in October 2018. The permanent downhole pressure gauges will opportunistically capture BCS Formation fall-off reservoir pressures when injection wells are shut-in (refer to 3.4.2 for discussion).

Other Monitoring

There were no technology field trials ongoing or conducted in 2023 for purposes of new MMV data gathering.

6 STAKEHOLDER ENGAGEMENTS

Upon start-up of the Quest CCS facility, stakeholder engagement focused on multiple streams: community relations, sharing of CCS knowledge and CCS advocacy.

Municipal Government Updates

Annual updates were offered to municipal governments at their council sessions to provide updates on Quest operations. Updates were provided to the following municipalities in 2023:

- Strathcona County
- City of Fort Saskatchewan

No major issues were raised specific to the Quest facility. Questions from council members were answered immediately at the council sessions.

Public Concerns

Shell has a comprehensive public concerns process that is designed to encourage community feedback.

In 2023, Shell recorded no concerns related to Quest operations.

Participation on Community Advisory Panel (CAP)

To involve the public in the development of the MMV plan, a Community Advisory Panel (CAP) was formed in 2012. The CAP comprises local community members, academics, emergency responders, the AER and public health professionals. The mandate of the panel is to provide input to Quest on the design and implementation of the MMV plan on behalf of the broader community and to help ensure that results from the program are communicated in a clear and transparent manner. In 2023, the CAP met on October 24 in a virtual format, providing the latest MMV and community information.

Emergency Response

Ground truthing was last completed in 2023.

In 2021, one Well Site Emergency Response Drill occurred on August 12, 2021. Shell Scotford conducted a full deployment drill at Quest Well Pad which is approximately 65 km north of Scotford in Thorhild County. Using existing technology the team was able to assess the ability for our virtual incident command team (ICT) to interface with our field connected workers at the remote

location. Intrinsically safe iPads with Bluetooth headsets allowed our field responders to provide live video feeds from the simulated incident location and discuss strategies and tactics with our Subject Matter Experts (SMEs) in wellhead emergencies in Houston through the virtual link.

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PROFESSIONAL PRACTICE MANAGEMENT

This report entitled "Quest Carbon Capture and Storage Project - 2023 Annual Status Report" was prepared for the Alberta Energy Regulatory in March 2024.

It was prepared by Shell Canada Limited under the supervision of:

PERMIT TO PRACTICE
SHELL CANADA LIMITED
RM SIGNATURE:
RM APEGA ID #: 84517
DATE:
PERMIT NUMBER: P004356
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Carrie Rowe, P.Geo (RM)
Quest Subsurface Manager, Geologist

The following sections have been reviewed and approved by the following professionals:

Sections: 4.4.2, 4.5.1, and 4.5.2

PROFESSIONAL GEOSCIENTIST ALBERTA
JONATHAN HOPKINS
ID 133492

2024-06-20

Jonathan Hopkins, P.Geo
Geophysicist

Sections: 2.2, 2.3, 2.4, 3.1, 3.2, 4.2, 4.3.1, 4.3.2, 4.3.3, 4.4.1, 4.4.6, 4.4.7, 4.5.3, and 4.6

PROFESSIONAL ENGINEER ALBERTA
ROBERT LISTON
94229

2024-06-07

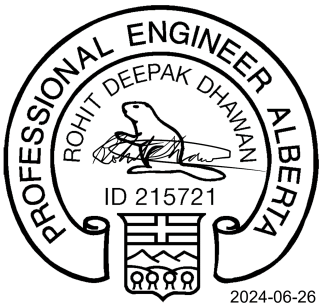
Rob Liston, P.Eng
Production Technology Engineer

Sections: 2.4.1, 4.1, 4.2, 4.4.3, 4.4.4, 4.4.5, 4.5.4, 4.6, and 5.2



Irma Eggenkamp, P.Geo
Senior Petrophysicist

Sections: 3.3, 3.4



Rohit Dhawan, P.Eng
Reservoir Engineer

APPENDIX A: REPORT ON 2023 HYDROSPHERE MONITORING PROGRAM

Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

AER Approval No. 11837C

March 2024

Prepared for:
Shell Canada Limited
Calgary, Alberta

Prepared by:
Stantec Consulting Ltd.
Calgary, Alberta

Project Number:
123513522

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Acronyms / Abbreviations

°C	degrees Celsius
µS/cm	microsiemens per centimetre
3D	three dimensional
AEPA	Alberta Environment and Protected Areas
AER	Alberta Energy Regulator
AT600	In-Situ AquaTROLL® 600
BBRS	Basal Belly River Sandstone
BCS	Basal Cambrian Sands
CCS	Carbon Capture and Storage
CO_2	carbon dioxide
COA	certificate of analysis
DIC	dissolved inorganic carbon
EC	electrical conductivity
HMP	Hydrosphere Monitoring Program
mBGS	metres below ground surface
mg/L	milligrams per litre
MMV	measurement, monitoring and verification
ORP	oxygen reduction potential
Q1	first quarter
Q2	second quarter
Q3	third quarter
Q4	fourth quarter
QA/QC	quality assurance and quality control

RDL	reportable detection limit
RPD	relative percent difference
Shell	Shell Canada Limited
Stantec	Stantec Consulting Ltd.
TDS	total dissolved solids

1 Introduction

Shell Canada Limited (Shell) retained Stantec Consulting Ltd. (Stantec) to conduct the 2023 Hydrosphere Monitoring Program (HMP) associated with Shell's Quest Carbon Capture and Storage (CCS) Project, herein referred to as "the Project". The HMP is part of Shell's CCS Measurement, Monitoring and Verification (MMV) plan.

The HMP involves groundwater quality monitoring, groundwater sampling and gas sampling at nine groundwater monitoring wells (Project Wells) that are situated at three Project injection wellsites within the Project's sequestration lease area. The Project is located east of the Towns of Thorhild and Radway, Alberta (**Appendix A, Figure A.1**).

This report is based on and presents a summary of the data gathered by Stantec in 2023.

2 2023 Hydrosphere Monitoring Program

2.1 Objectives and Scope of Work

The objectives of the 2023 HMP included the following:

- evaluate trends in continuous water quality monitoring data for pH and specific conductance
- evaluate the groundwater quality and free gas concentrations of discrete samples collected from monitoring wells
- compare continuous water quality and discrete groundwater data trends on an intra-well basis
- assess trends between sites to determine if there are indications of potential project related effects
- to verify that sequestered CO2 has not reached any of the nine GW wells on the injector sites

To achieve the objectives of the 2023 HMP, the scope of work consisted of the following activities at the Project Wells (**Appendix B, Table B.1)**:

- performing quarterly monitoring for depth to groundwater
- performing quarterly maintenance checks and sensor calibration on In-Situ AquaTROLL® 600 (AT600) multiparameter dataloggers including downloading data
- measuring basic water quality parameters in the field on a quarterly basis
- completing quarterly discrete groundwater and free gas sampling

A detailed record of the field methods used to complete the 2023 HMP is provided in **Appendix C**.

2.2 Monitoring Network

The groundwater monitoring network wells are located within the Shell Quest sequestration lease area and consist of Project Wells situated within injection wellsites. The Project Wells consist of nine groundwater monitoring wells installed at the three injection wellsites. Two Project Wells are located at the 05-35-059-21 W4M (05-35) wellsite, two Project Wells are located at the 07-11-059-20 W4M (07-11) wellsite, and five Project Wells are located at the 08-19-059-20 W4M (08-19) wellsite. The locations of the Project Wells are shown on **Figure A.2 (Appendix A)** and are summarized in **Table B.1** (**Appendix B**).

3 Potential Project Effects

Potential project effects are based on two main release scenarios involving the release of carbon dioxide (CO_2) and/or Basal Cambrian Sands (BCS) brine into a shallow aquifer in the Project area either through migration along an injection well and/or along a Structural Migration Pathway (as described in the 2023 MMV Plan, chapter 3.1.3):

- A release of CO_2 into shallow potable aquifers would be expected to result in changes to dissolved or free gas composition and isotopic composition of those gases. Secondary effects include decreased pH from dissolution of CO_2, increased dissolved inorganic carbon (DIC) [decreasing δ^{13}C-DIC], and increased dissolved arsenic.
- A release of brine, acidified brine or deep groundwater are grouped together due to their interrelated nature and similar effects on shallow groundwater and are expected to result in increasing total dissolved solids (TDS), electrical conductivity (EC), chloride, and sodium.

The conceptual site model developed for the Quest Project sequestration lease area has not identified pathways through which BCS brine can reach aquifers above the base of groundwater protection (BGWP) and potential sub-seismic faults or induced fractures at these depths are unlikely to be open or conductive due to overburden pressures. Additionally, chapter 4.2.1 in the 2023 MMV Plan determined the limited pressure increase in the BCS from injections are not forecast to reach a level that could displace BCS brine up to the BGWP over the life of the project. Although the risk was deemed to be low under these scenarios, as described in the MMV Plan, parameters related to a BCS brine release are still considered in potential project effects.

Changes to groundwater can also occur as a result of other factors that are not based on current operations.

Hydrosphere monitoring is part of the Quest MMV plan that uses a tiered approach. Groundwater monitoring is one of the Tier 3 technologies. Tier 3 technologies are contingency technologies to be used primarily if triggered by Tier 1 or 2 technologies. A complete description of the technology Tiers and triggers is presented in the Shell Quest MMV Plan (2023, chapter 4.3.1).

Potential project effects are measured as part of the HMP using free gas prevalence and composition, free gas isotope ratios, continuous pH measurement and discrete groundwater monitoring and sampling.

While changes in any one parameter concentration are not likely to provide a conclusive indication of project effects, given the variability of the historical data set, use of a combination of data sources and parameters provides a means for corroboration of a Project related change. For example, while there has been instrument drift noted in the data logger pH measurements, if a sharp decrease in pH is noted at a given well, the value can be verified through field and laboratory measurements and potential effects can be further evaluated by examining free gas analyses, electrical conductivity measurements, analyses at other wells at the injection location, or nearby domestic wells.



Suspected project effects can then also be evaluated and corroborated in the context of the other components of the approved MMV plan. An assessment to evaluate potential geochemical changes in the Project Area has been completed to evaluate potential project effects in further detail.

4 Results and Discussion

4.1 In-situ Continuous Monitoring

4.1.1 Quarterly Maintenance

In 2023, quarterly maintenance, calibration, and data download events occurred in February (Q1), May (Q2), August (Q3) and October and November (Q4). One additional maintenance event occurred in December at the 07-11 wellsite to assess intermittent data communication interruptions. Upon inspection of the AT600s, the back-up batteries were depleted and the internal logs were interrupted.

Pressure and water quality data collected from the AT600s installed in the Project wells were continuously recorded on an automated basis and were manually downloaded by Stantec on a quarterly basis. The frequency of automated data collection is on a twice-daily basis. A summary of the maintenance activities and issues encountered during the quarterly maintenance events are provided in **Table B.2 (Appendix B)**.

A complete data set throughout 2023 was obtained from the AT600s at all the Project Wells except UL1/07-11, UL1/05-35 and 1F1/05-35. Erroneous and outlier data have also been manually removed as part of data quality reviews. Erroneous and outlier pressure data removed include UL1/08-19 (August 4 to 9), UL3/08-19 (February 14, May 8, and August 7), and 1F1/08-19 (May 10 and October 31). Erroneous data includes values that are significantly different than other readings, possibly due to readings while the AT600 was pulled for maintenance or waiting for the sensors to equilibrate after redeployment. During the Q2 maintenance event, the AT600's sondes at UL1/07-11 could not be successfully calibrated so a spare AT600 was deployed. However, after deployment, there were issues with the replacements' pressure sonde. Therefore, there is no retrievable water pressure/level data between May and August. Following the Q3 maintenance event (August), Shell completed routine check-up and maintenance at 05-35. However, a cable was accidentally disconnected in the MMV building which interrupted the external power source to the AT600s at both UL1/05-35 and 1F1/05-35 project wells. The external power source was resolved for UL1/05-35 and the AT600's internal memory was able to restore the log in September; however, the internal log was not restored to 1F1/05-35 until after the Q4 maintenance event. Since the internal log was not restored, twice-daily data was not available for download through the SD card or the Win-Situ desktop application. Shell was able to provide continuous monitoring data between September to November for 1F1/05-35 but without downhole temperature readings since temperature readings are not communicated to the system. An average water temperature was used to calculate estimated specific conductivity values. Therefore, there is no retrievable data from UL1/05-35 between August 28 and September 22, 2023, and 1F1/05-35 between August 27 and September 22, 2023 **(Appendix D)**.



4.1.2 Water Levels

The summary of the 2023 continuous water level statistics in comparison to pre-injection statistics[1] is presented in **Table B.3 (Appendix B)**. The calculated water levels and groundwater elevation data and summary statistics for 2023 are summarized by Project Well in **Tables D.1** to **D.9 (Appendix D)**.

Hydrographs for each of the Project Wells are provided in **Appendix E**. In general, the calculated water level elevations were relatively stable throughout 2023 and were consistent with the historical data.

4.1.3 Water Quality Results and Discussion

The summary of the 2023 continuous water quality measurement statistics in comparison to pre-injection statistics[1] is presented in **Table B.3 (Appendix B)**. The continuous groundwater monitoring water quality parameters consisting of temperature, pH, specific conductivity and oxygen reduction potential are summarized in **Tables D.1** to **D.9 (Appendix D),** with pH and specific conductivity plotted on charts in **Appendix E.** The charts indicate interpolated linear trends prior to and after injection and values representing the pre-injection data set minimum or maximum (based on the direction of potential project effects) for comparison purposes. Additionally, the field and laboratory results for each quarterly event are plotted for comparison to the continuous water quality measurements.

The continuous groundwater monitoring values in 2023 were generally consistent with historical data at the Project Wells. However, there were some fluctuations in 1F1/08-19 (pH) and 1F1/07-11 (EC). A decrease in pH in 1F1/08-19 occurs near the beginning of 2023 and fluctuates throughout 2023. Decreases and fluctuations in pH are also observed historically at this monitoring well (beginning of 2019 and 2022). Although fluctuations are apparent in the 2023 continuous groundwater monitoring values, the field and laboratory results plotted on charts in **Appendix E** are generally similar to 2022 results which indicate there are no major changes due to potential project effects. One of the main causes of fluctuations are due to downhole conditions and sondes requiring time to equilibrate. Instrument drift, accuracy of instrument, and natural variation are also potential factors. In 1F1/07-11, a decrease in EC occurred between Q3 and Q4 2023 and is similar to a decrease that occurred around Q3 2022. As indicated on charts in **Appendix E,** device/sensors were changed when the decreases were identified. The 2023 laboratory reported results are very similar to the continuous groundwater monitoring values which indicates that the decreases represent real change in the subsurface, but are not a result of potential project effects considering they are in the opposite direction of the expected effect.

4.2 Groundwater Analytical Results

In 2023, all of the Project Wells were sampled quarterly and were analyzed for the parameters listed in **Appendix C**. A summary of the 2023 analytical results is provided in **Tables B.4** and **B.5 (Appendix B)** with potential project effect parameters plotted on time-series charts in **Appendix F**. The laboratory certificates of analysis (COAs) are provided in **Appendix G**.

[1] First Injection date is August 23, 2015 at 08-19-059-20 W4M and 07-11-059-20 W4M wellsite and October 18, 2018 at 05-23-059-21 W4M wellsite.

To screen for potential project effects, statistical trends were determined using Mann-Kendall non-parametric trend analysis on each project well using the pre injection period and post injection period data sets for the potential project effect parameters (pH, EC, TDS, sodium, chloride, arsenic, DIC, and δ^{13}C-DIC). The test for trend was based on a 95% confidence interval. A summary of the Mann-Kendall trend analysis results is presented in **Table B.6 (Appendix B)**. The Mann-Kendall analysis is used to screen for potential change requiring evaluation; however, further analysis of the time-series charts is also important given the potential for non-monotonic trends and shorter term variation (i.e. on a shorter time scale than the entire post-injection period).

4.2.1 Comparison of Sampling Methods

During the Q1 event, not all samples were collected as planned due to bladder pump equipment malfunction in the field such as ball check valves not functioning properly leading to flow issues during pumping and fill cycles, need to increase air pressure to higher rates which would cause bladders to tear, or compressed air leaking into the bladder. Therefore, the standard operating procedure was changed to collect no-purge HydraSleeve samples. During the Q2 and Q3 events, confirmatory HydraSleeve samples were collected along with the standard samples collected through a bladder pump. The additional sampling was completed to assess the groundwater quality representativeness from the HydraSleeve sampling method compared to a bladder pump.

Relative percent difference (RPD) values were calculated (**Appendix B; Table B.4b**) for the assessment of the samples based on the criteria outlined in Table C-1 (**Appendix C**). From the results with calculable RPD values, 26 of the total 284 exceeded the criteria. The focus of the comparison was on parameters that are important indicators of potential project effects (pH, EC, chloride, sodium, TDS, DIC and arsenic). EC and pH values were below 20% RPD for all samples except for EC in May from 1F1/07-11 (21%). Two chloride RPD values exceeded the 40% criteria for UL1/05-35 in both May (51%) and August (72%) events. Sodium and TDS RPD values were below 40% for all samples. Two DIC RPD values exceeded the 40% criteria for 1F1/05-35 in both May (48%) and August (103%) events. Only one RPD value was calculable for arsenic (0%) since majority of concentrations were below detection limits; however, detectable concentrations were comparable. In total, five RPD results did not meet the respective criteria (20% or 40%) for parameters of interest. The remaining 21 RPD results exceeded the criteria for the following parameters: alkalinity (various), fluoride, manganese, iron, hardness, and calcium.

Overall, five RPD results exceeded the criteria from the parameters of interest. The differences in parameter concentrations and resulting RPD criteria exceedances can be attributed to the bladder pump sampling method providing a purged sample with parameter stabilization confirmation compared to a non-purged sample from a HydraSleeve. Since there were only five RPD results exceeding criteria from the parameters of interest, there is minimal observable data quality or representativeness concerns utilizing the HydraSleeve as a back-up sampling method. However, as outlined in Appendix C, the standard operating procedure prior to sampling is to purge out stagnant groundwater with a bladder pump and continue until stabilization of field parameters is achieved for a more representative sample. As such, analytical results discussed further will pertain to the bladder pump results only (except samples collected with HydraSleeve in Q1 due to equipment malfunction) since it is the preferred sampling method.



4.2.2 Field Parameters

Field parameters (pH, specific conductance, and temperature) were measured at the time of sampling to compare to the pH and specific conductance analyzed in the laboratory (**Appendix B; Table B.4a**). In 2023, the field parameters were generally consistent with the laboratory results. Field pH and EC values in comparison to laboratory pH and EC values were below 20% RPD for all samples.

4.2.3 Groundwater Results and Discussion

Groundwater analytical results are discussed based on potential project effects outlined in Section 3.0.

The groundwater pH is an important indicator of potential project effects. The pH readings (laboratory, field, and continuous monitoring) are plotted on charts in **Appendix E**. The anticipated potential project effect would be a lowering of the pH. Differences between downhole, field and laboratory measured pH values are expected as a result of instrument drift in the downhole probes, accuracy of the instruments in the case of field pH meters and hold times in the case of lab results. For pH analysis, it is not practical to meet the laboratory recommended hold time of 15 minutes from sampling. For 2023, on average, the difference between field recorded pH and laboratory reported pH is approximately 0.29. Generally, larger discrepancies in pH are observed in the '1F1' wells. If results for those are excluded, the average difference between pH results is approximately 0.07. These variations between field and laboratory pH measurements are expected and the change in pH depends on a variety of factors. For example, oxidation and precipitation of dissolved metals may slightly decrease pH, while degassing of carbon dioxide can increase pH. As such, the composition of the groundwater, the extent of degassing or equilibration during sample collection and time to transport to the laboratory affect pH values. Laboratory reported pH values are discussed for consistency with previous reports, however, consideration may be given to discussion of field pH in future reports. The 2023 laboratory reported pH values ranged from 7.48 at 1F1/05-35 (August 2023) to 10.4 at 1F1/08-19 (February 2023). Examination of the post-injection laboratory pH results did not indicate significant decreasing trends but suggest a possible increasing trend in project wells UL1/08-19, UL2/08-19, UL4/08-19, UL1/07-11, and 1F1/07-11 (**Appendix B; Table B.6**). Potential Project effects would tend to decrease pH and, as such, these increasing trends are considered to be naturally occurring or as a result of external anthropogenic effects.

The groundwater EC, TDS, sodium, and chloride are also important indicators of potential project effects. A potential project effect would increase EC, TDS, sodium, and chloride concentrations over time. The EC, TDS, sodium, and chloride concentrations generally increase with monitoring well completion depth as has been observed in the baseline and historical monitoring results. The 2023 EC, TDS, sodium, and chloride concentrations are generally consistent with baseline and historical monitoring results. Statistically significant trends in EC (UL4/08-19 and UL1/07-11), TDS (UL2/08-19, UL3/08-19, and UL1/07-11), sodium (UL2/08-19, UL3/08-19, UL4/08-19, UL1/07-11 and UL1/05-35), and chloride (UL3/08-19, UL4/08-19, UL1/07-11, and UL1/05-35) concentrations post-injection are noted; however, visually, the time-series data (**Appendix F**) and average concentrations (**Table B.6; Appendix B**) appear to be comparable to pre-injection data and changes are not considered to be due to project effects.

DIC and dissolved arsenic concentrations are secondary indicators of potential project effects. The 2023 DIC concentrations decreased with depth, ranging from 244 mg/L (February 2023) in shallow monitoring



well UL4/08-19 to 2.1 mg/L in deep monitoring well 1F1/08-19 and 1F1/05-35 (August and February 2023, respectively). Significant post-injection increasing DIC concentration trends were noted in all 08-19 Project Wells and 1F1/07-11, although pre-injection, the DIC concentrations in project wells UL1/08-19, UL2/08-19, UL1/05-35 and 1F1/05-35 also suggest potential increasing trends with less than 95% significance and project well 1F1/07-11 had significant increasing trends (**Appendix F and Table B.6; Appendix B**). Therefore, the increasing DIC concentration trends suggest a continuation of a longer-term trend and a result of natural variation or other external anthropogenic effects rather than an indicator of potential project effects. Furthermore, the average pre- and post-injection DIC values are nearly identical which demonstrates the limited magnitude of the increases. The $\delta^{13}C$ (ratio of stable carbon isotopes) of DIC also were assessed with the Mann-Kendall trend analysis to have significant decreasing trend in UL2/08-19 in 2023; however, current $\delta^{13}C$-DIC levels are comparable to historical levels. The expected result of an increase in CO_2 concentrations would be an increase in DIC concentrations and a decrease in $\delta^{13}C$-DIC. Although there are limited increases in DIC concentrations, $\delta^{13}C$-DIC levels are not decreasing.

Dissolved arsenic concentrations remained at, or near, the reportable detection limit (RDL) in all monitoring wells in 2023 with no significant increasing trends. The RDL was increased for the August 2023 samples due to matrix interference but even with the raised detection limits there is still confirmation that the arsenic concentrations remained low (i.e., less than 0.01 mg/L).

Although there are increasing DIC concentration trends post-injection, the data suggest that trends indicate the continuation of a longer-term trend from pre-injection data and a result of natural variation rather than an indicator of potential project effects. Furthermore, the average pre- and post-injection DIC concentrations are nearly identical and $\delta^{13}C$-DIC levels are not decreasing as would be expected if it were due to Project effects. With the overall 2023 groundwater quality results being comparable to 2022 and historical data, the results do not suggest potential Project effects.

4.2.4 Free Gas Analytical Results and Discussion

In 2023, 1F1/08-19, 1F1/07-11, and 1F1/05-35 had sufficient measurable free gas for sampling. Sufficient sample volume was not acquired for isotope analyses during the Q2 (May) 2023 event. Free gas samples were not collected in February 2023 due to issues with the bladder pump setup (as discussed in Section 4.2.1). The reportable free gas samples collected in 2023 were evaluated for the parameters listed in **Appendix C** and are summarized in **Table B.5 (Appendix B)**. There are no specific screening guidelines used to compare the dissolved gas samples. Free gas analytical results are discussed based on potential project effects outlined in Section 3.0.

Increasing CO_2 concentrations are a primary potential project effect. CO_2 concentrations were low ranging from 0.01% at 1F1/08-19 (August 2023) to 0.10% in 1F1/07-11 (May and August 2023). A statistically significant increasing CO_2 trend was calculated post-injection at 1F1/07-11. At 1F1/07-11, CO_2 concentrations have increased from 0.052% (November 2018) to 0.30% (August 2022) but have decreased back to approximately 0.10% throughout 2023 and remain relatively low in comparison to the total composition. In 2023, CO_2 concentrations are generally consistent with historical concentrations. The ratio of stable isotopes in the CO_2 ($\delta^{13}C$ CO_2) decreases as a result of CO_2 from fossil fuels (less ^{13}C in



plant material). Where free gas was present and $\delta^{13}C$ CO_2 analysis was possible, $\delta^{13}C$ CO_2 ranged from -10.2‰ (1F1/07-11) to -16‰ (1F1/08-19). There were no significant decreasing $\delta^{13}C$ CO_2 trends noted.

Where free gas was present in the groundwater, methane concentrations ranged from 84.72% in 1F1/08-19 (May 2023) to 96.56% in 1F1/07-11 (November 2023). The free gas samples from the Project Wells 1F1/08-19, 1F1/07-11 and 1F1/05-35 with methane show presence of ethane, propane, pentane and helium, all indicators of thermogenic source of free gas likely resulting from coal seams and not Project effects.

4.3 Quality Assurance and Quality Control

The purpose of the quality assurance and quality control (QA/QC) program was to assess the reliability and reproducibility of the data for the purposes of the assessment. Stantec's QA/QC process is described in **Appendix C**. A summary of the QA/QC program is provided in Table 4.1.

Table 4.1 Summary of QA/QC

QA/QC Parameter	Comment
Collection and Handling	All samples were collected in appropriate containers using applicable preservation measures. Sample temperatures were all below 10°C upon receipt by the laboratory. No sample integrity issues were observed by the laboratory.
Laboratory QA/QC	All matrix spikes, method blanks, replicates, referenced criteria, and surrogate recoveries were within acceptable ranges.
Field Duplicate QC	Field duplicates were submitted during the program to assess for laboratory precision. The RPDs calculated for the duplicate groundwater and free gas sample pairs (**Table B.4a and B.5; Appendix B**) collected as part of the program were less than the acceptable RPD variance limits (**Appendix C**) except for the following duplicate pairs: • Sulfate RPD of 170% within duplicate pair 5355921400-W-23Q4/QC-2023-10 in October 2023. • Heptane and Hexane RPD of 47% and 67%, respectively, within duplicate pair 7115920400-G-23Q3/QC-G-01-2023 in August 2023. • Hydrogen RPD of 61% within duplicate pair 5355921400-G-23Q4/QC-2023-10-G in November 2023. The RPD reported are not considered to alter the findings of the assessment.
Field Blank QC	Field blanks were submitted during the 2023 sampling events to assess for cross-contamination between samples or equipment during the program and the concentrations were below the RDL except for EC, chloride, and TDS in QC-2023-11, and bicarbonate, sodium and TDS in QC-2023-02 (**Table B.4a; Appendix B**). Additionally, the pH of the field blanks were slightly acidic, which is likely a result of carbon dioxide exposure to the water. Detectible concentrations of bicarbonate, chloride and sodium were identified in the blank samples; however, the concentrations are not material enough to influence the total concentration of the groundwater sample and not considered to alter the findings of the assessment.

Based on the QA/QC review, the laboratory results were considered to have an acceptable level of reproducibility.

5 Summary

In summary, the 2023 HMP at the Project Wells was completed as per the plan, with some exceptions noted in this report. Overall conclusions based upon interpretation of results include the following:

- Four quarterly (Q1 to Q4) calibration, maintenance, and stored data collection events of the AT600s occurred. A complete data set throughout 2023 was obtained from AT600s at all Project Wells except UL1/07-11, UL1/05-35 and 1F1/05-35 due to issues with an AT600's pressure sonde and external power source being interrupted for the AT600s. Therefore, the data set is incomplete for portions of the reporting period.
- Four quarterly (Q1 to Q4) discrete groundwater and free gas sampling events of the Project Wells occurred. All Project Wells were sampled during each quarterly event; however, not all samples were collected as planned due to bladder pump equipment malfunction in the field where the standard operating procedure was changed to collect no-purge HydraSleeve samples in Q1. Additional confirmatory HydraSleeve sampling was completed in Q2 and Q3. Results indicate the change of the sampling method did not result in overall data quality or representativeness concerns.
- Available continuous water quality monitoring data from the Project Wells were generally consistent with historical data except for some changes and fluctuations in 1F1/08-19 (pH) and 1F1/07-11 (EC). Fluctuations in continuous readings may be attributable to time for equilibration, instrument drift, accuracy of instrument and natural variation. 1F1/08-19 laboratory reported pH values are generally similar to 2022 results which indicate there are no major changes due to potential project effects. For 1F1/07-11, similar continuous monitoring data and laboratory reported EC concentrations indicate that the decreases represent real change in the subsurface, but are not a result of potential project effects considering they are in the opposite direction of the expected effect. The continuous water quality monitoring data was also generally comparable to the laboratory data except for EC at UL2/08-19 which is lower than the laboratory results and pH at 1F1/08-19, UL1/07-11 and 1F1/05-35 which are higher than the laboratory results and can be attributed to the recommended laboratory sample hold time being exceeded.
- Post-injection laboratory pH results did not indicate significant decreasing trends (i.e. potential project effect) but suggest possible increasing trends in project wells UL1/08-19, UL2/08-19, UL4/08-19, UL1/07-11, and 1F1/07-11. Trends are considered to be naturally occurring or as a result of external anthropogenic effects since potential project effects would decrease pH.
- Statistically significant trends in EC (UL4/08-19 and UL1/07-11), TDS (UL2/08-19, UL3/08-19, and UL1/07-11), sodium (UL2/08-19, UL3/08-19, UL4/08-19, UL1/07-11 and UL1/05-35), and chloride (UL3/08-19, UL4/08-19, UL1/07-11, and UL1/05-35) concentrations post-injection are noted. However, further analysis of the time-series data and average concentrations indicate that results are comparable to pre-injection and 2023 results are comparable to 2022 data. Therefore, changes are not considered to be due to project effects.
- Significant post-injection increasing DIC concentration trends were noted in all 08-19 Project Wells and 1F1/07-11 but pre-injection increasing DIC concentrations were also observed at some monitoring wells. In combination with δ^{13}C-DIC levels not decreasing and average pre- and post-



injection DIC concentrations averages nearly identical (i.e. limited change in concentrations despite trend), the data suggest that the trend is a result of natural variation or external anthropogenic effects and not due to project effects.

- Dissolved arsenic concentrations remained below, or near, the RDL in all monitoring wells in 2023.

While concentration changes and trends in the expected direction of potential Project effects are observed at the monitoring wells listed above, the changes were limited to select parameters and cannot be interpreted in isolation and multiple lines of evidence are considered. Where changes were identified in the direction of expected Project effects, they were not corroborated by other observations that would be expected for a Project effect. Overall, the results of the 2023 HMP were comparable to 2022 and did not identify potential Project effects.



6 Limitations

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

This report is limited by the following:

- *Historical data was collected from other consultants and supplied to Stantec by Shell.*
- *The previous investigations were limited to those parameters specifically outlined in this report.*
- *The samples were analyzed only for the parameters specified in the report.*
- *Sampling was conducted only on the dates and locations specified in the report.*
- *Analytical results were compared with the most current regulatory guidelines at the time that the sampling was conducted.*

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.



The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire Site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the Site is beyond the scope of this assessment.

Should additional information become available, which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.

7 Stantec Quality Management Program

This report, entitled **"2023 Hydrosphere Monitoring Program, Quest Carbon Capture and Storage Project"** was prepared for Shell Canada Limited by Stantec Consulting Ltd.; March 2024 and was produced by the following individuals:

Darren Heck, M.Sc., P.Ag., PMP
Senior Associate, Project Manager,
Environmental Services
Tel: (403) 716-8137
darren.heck@stantec.com

Wesley Tsen, B.Sc., P.Geo.
Geoscientist,
Environmental Services
Tel: (780) 906-9265
wesley.tsen@stantec.com

This report has been reviewed and approved for transmittal by:

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STANTEC CONSULTING LTD.
Signature
ID# 80197
Date 2024-03-25
PERMIT NUMBER: P 0258
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Dylan King, B.Sc., P.Geol.
Senior Associate, Hydrogeologist,
Environmental Services
Tel: 780) 969-2223
dylan.king@stantec.com

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8 References

Shell Canada Limited. 2023. Shell Quest Carbon Capture and Storage Project, Measurement, Monitoring and Verification Plan, October 2023 Update.

Stantec Consulting Ltd. 2011. Quest Carbon Capture and Storage Project – Geochemical Modelling of CO2 and Brine Interactions with Non-Saline Groundwater. July 2011.

Appendices

Appendix A Figures

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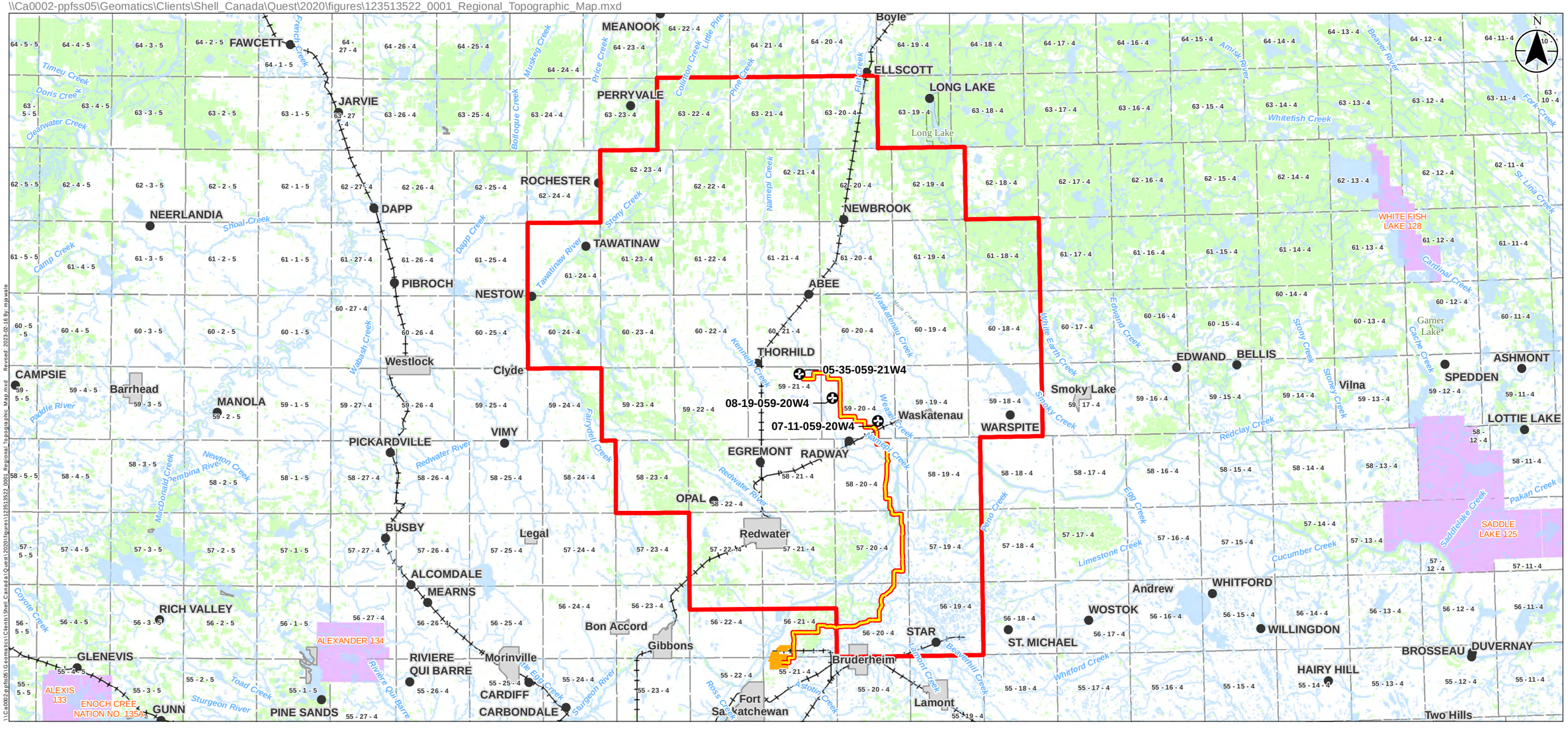

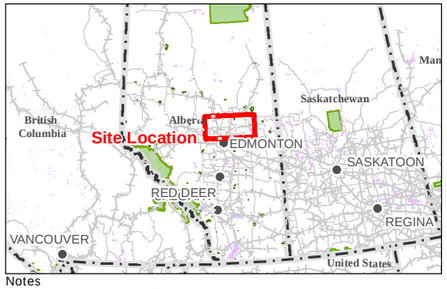

Injection Well
Pipeline Route
Sequestration Lease
Shell Scotford Upgrader

Transportation
Road, Primary Undivided
Road, Secondary Undivided
Road, Primary Undivided
Road, Secondary Undivided
Railway, Single Track

Hamlet
Section
Township
Watercourse
Aboriginal Reserve
Protected Area
Urban Area
Waterbody

Township

0 5,000 10,000 metres

1:525,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 Alberta Lambert
2. Service Layer Credits:
3. Sources: ABMI Data provided by Stantec, Base Data Provided by Government of Alberta, Geogratis. Canvec

Stantec

Project Location
Alberta

123513522-0001
Prepared by Z.Nastov on 2021-01-04
Technical Review by E.Strangward on 2021-01-04
Independent Review by D.Heck on 2021-01-04

Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage
2023 Hydrosphere Monitoring Program

Figure No.
A.1

Title
Site Location Map

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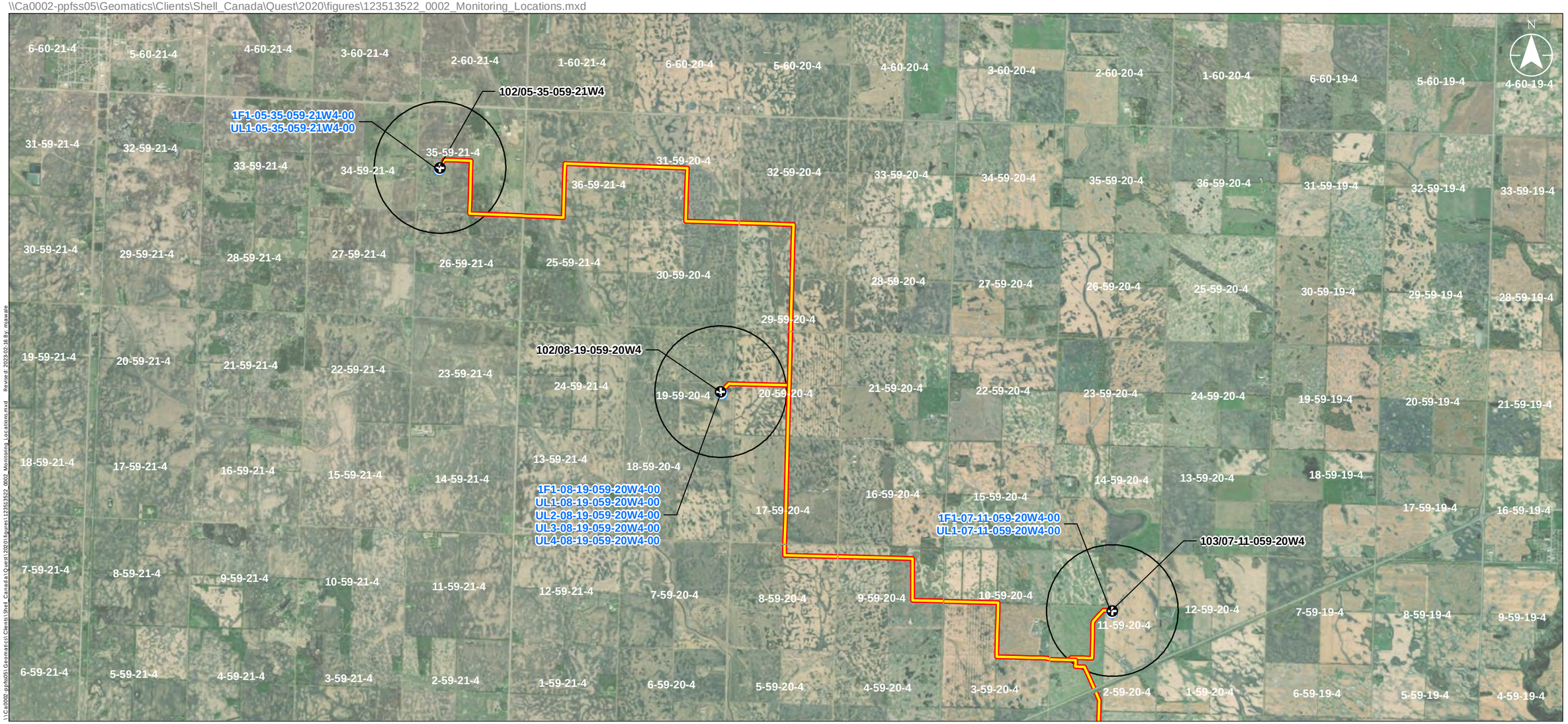

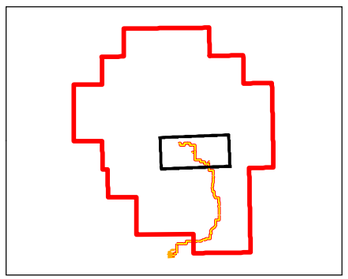

Injection Well
Project Well
Pipeline Route
Transportation
Road, Primary Undivided
Road, Secondary Undivided
Road, Secondary Undivided
Road, Unimproved
Single Track
Injection Well Buffer (1 Km)

Populated Place
Watercourse
Section
Waterbody

0 1,000 2,000 metres

1:60,000 (At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Data sources: Canvec, Government of AB, Shell, Stantec.
3. Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Stantec

Project Location
Alberta

123513522-0002
Prepared by Z.Nastov on 2021-01-04
Technical Review by E.Strangward on 2021-01-04
Independent Review by D.Heck on 2021-01-04

Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage
2023 Hydrosphere Monitoring Program

Figure No.
A.2

Title
Monitoring Locations

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Appendix B Tables

Table B.1 Summary of Project Wells

Well ID	Location Name	Top of Casing Elevation	Ground Elevation	Total Depth Drilled	Total Depth of Well	Bottom of Well Elevation	Screen Interval		Geological Formation
		mASL	mASL	mBGS	mBGS	mASL	mBGS	mASL	
UL1-05-35-059-21W4-01	UL1/05-35	642.17	641.33	23	23	618.33	20 - 23	621.33 - 618.33	Foremost
1F1-05-35-059-21W4-00	1F1/05-35	642.26	641.38	200	118	523.38	115 - 118	526.38 - 523.38	Foremost
UL1-07-11-059-20W4-01	UL1/07-11	636.81	636.11	30.7	30.7	605.41	27.7 - 30.7	608.41 - 605.41	Foremost
1F1-07-11-059-20W4-00	1F1/07-11	637.07	636.29	180	127.5	508.79	124.5 - 127.5	511.79 - 508.79	Foremost
UL1-08-19-059-20W4-01	UL1/08-19	641.99	641.09	101	101	540.09	98 - 101	543.09 - 540.09	Foremost
UL2-08-19-059-20W4-02	UL2/08-19	642.05	641.15	62.8	62.8	578.35	59.8 - 62.8	581.35 - 578.35	Foremost
UL3-08-19-059-20W4-03	UL3/08-19	641.97	641.11	37.5	37.5	603.61	34.5 - 37.5	606.61 - 603.61	Foremost
UL4-08-19-059-20W4-04	UL4/08-19	642.04	641.14	20	19.7	621.44	16.7 - 19.7	624.44 - 621.44	Oldman
1F1-08-19-059-20W4-00	1F1/08-19	641.96	641.12	201	158.7	482.42	155.7 - 158.7	485.42 - 482.42	BBRS

Notes:

mBGS – metres below ground surface

mASL – metres above sea level

BBRS - Basal Belly River Sandstone

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Table B.2 Summary of Project Wells 2023 Maintenance Activities and Issues

Location Name	Q1 2023		Q2 2023		Q3 2023		Q4 2023	
Dates	Feburary 14 - 17, 2023		May 8 - 12, 2023		August 7 - 10, 2023		October 30 - November 2, 2023	
	Activities Completed	Issues Identified	Activities Completed	Issues Identified	Activities Completed	Issues Identified	Activities Completed	Issues Identified
UL1/08-19	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.
UL2/08-19	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.
UL3/08-19	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.
UL4/08-19	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.
1F1/08-19	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using hydrasleeve (no-purge). - Redeployed AT600 with centralizer in well.	- Free gas volume could not be determined due to bladder pump issues. The discharge lines were freezing due to the cold weather which prevented flow. On an attempt to pull the pump to clear the lines, the eye-hook bolt snapped which caused damage to the electrical wires.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. Collected free gas sample but insufficient sample volume for isotope analysis. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. Collected free gas sample. - Redeployed AT600 with centralizer in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. Collected free gas sample. - Redeployed AT600 with centralizer in well.	- No issues identified.
UL1/07-11	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using hydrasleeve (no-purge). - Redeployed AT600 in well.	- Free gas volume could not be determined due to bladder pump issues noted in 1F1/08-19.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 SN744643 in well.	- AT600 pH/ORP sensor not calibrating. Replaced sensor, would not calibrate. - Logger replaced with SN744643.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed repaired AT600 SN 454632 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.
1F1/07-11	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using hydrasleeve (no-purge). - Redeployed AT600 in well.	- Free gas volume could not be determined due to bladder pump issues noted in 1F1/08-19.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. Collected free gas sample but insufficient sample volume for isotope analysis. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. Collected free gas sample. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. Collected free gas sample. - Redeployed AT600 in well.	- No issues identified.
UL1/05-35	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using hydrasleeve (no-purge). - Redeployed AT600 in well.	- Free gas volume could not be determined due to bladder pump issues noted in 1F1/08-19.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well after batteries were replaced and internal log was restarted.	- Batteries drained upon initial inspection and internal log was missing data from August 28 until September 22 2023 due to device resetting.
1F1/05-35	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using hydrasleeve (no-purge). - Redeployed AT600 in well.	- Free gas volume could not be determined due to bladder pump issues noted in 1F1/08-19.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. Collected free gas sample but insufficient sample volume for isotope analysis. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete no-purge groundwater sample using hydrasleeve. - Collected discrete groundwater sample using submersible pump. No free gas present. - Redeployed AT600 in well.	- No issues identified.	- Downloaded AT600 data and perform on-site maintenance/calibration. - Collected discrete groundwater sample using submersible pump. Collected free gas sample. - Redeployed AT600 in well after batteries were replaced and new internal log was started.	- Batteries drained upon initial inspection and internal log was stopped on August 27 2023. Log was restarted on November 1 2023.

Table B.3 Summary of 2023 Continuous Water Quality Measurements Statistics

Location	UL1/08-19	UL2/08-19	UL3/08-19	UL4/08-19	1F1/08-19	UL1/07-11	1F1/07-11	UL1/05-35	1F1/05-35
Data Date Range (mm/dd - mm/dd)	**01/01 - 10/31**	**01/01 - 10/30**	**01/01 - 10/30**	**01/01 - 10/29**	**01/01 - 10/31**	**01/01 - 11/01**	**01/01 - 11/02**	**01/01 - 11/01**	**01/01 - 11/01**
Barometric Pressure (kPa)									
[Pre-Injection] Count	497	624	416	608	356	649	477	1441	1050
[Pre-Injection] Min	93.17	91.89	87.32	91.63	92.18	91.55	92.60	91.22	92.27
[Pre-Injection] Max	105.88	99.42	95.48	96.99	97.74	97.04	98.02	96.78	111.33
[Pre-Injection] Mean	96.27	95.09	90.16	94.08	95.03	94.38	95.39	94.09	96.57
[Pre-Injection] Median	95.35	94.96	89.27	94.04	95.02	94.44	95.40	94.22	95.27
[Pre-Injection] Standard Deviation	2.56	1.33	2.35	0.78	0.88	0.97	0.82	1.07	4.24
[2023] Count	596	603	602	603	605	612	609	559	555
[2023] Min	92.47	92.31	92.05	91.93	94.26	92.02	92.76	92.75	92.75
[2023] Max	96.82	96.71	96.40	96.27	94.49	96.40	97.22	97.24	120.36
[2023] Mean	94.78	94.67	94.43	94.32	94.32	94.60	95.19	94.60	98.79
[2023] Median	94.79	94.65	94.42	94.31	94.26	94.74	95.19	94.60	95.25
[2023] Standard Deviation	0.73	0.74	0.73	0.73	0.08	0.78	0.74	0.78	8.95
Water Pressure (kPa)									
[Pre-Injection] Count	497	624	437	608	356	649	477	1441	1050
[Pre-Injection] Min	573.32	519.31	308.56	114.64	1,147.37	208.32	336.28	124.93	867.57
[Pre-Injection] Max	775.41	557.56	325.30	134.64	1,160.08	249.80	409.90	188.26	894.15
[Pre-Injection] Mean	746.91	550.93	317.12	128.59	1,151.94	234.05	383.87	180.21	884.82
[Pre-Injection] Median	760.02	552.17	317.98	126.56	1,151.46	236.22	385.84	179.65	882.65
[Pre-Injection] Standard Deviation	35.11	5.59	3.90	4.93	2.85	10.99	21.67	7.95	7.48
[2023] Count	596	603	602	603	605	432	609	559	555
[2023] Min	745.83	507.32	306.99	109.24	1,251.08	233.65	861.11	174.02	877.52
[2023] Max	781.30	532.63	309.30	115.82	1,257.75	243.40	866.89	271.76	881.99
[2023] Mean	767.26	528.97	308.33	114.80	1,256.02	242.11	864.68	177.47	879.44
[2023] Median	764.67	530.94	308.16	114.79	1,256.04	242.72	864.96	176.09	879.24
[2023] Standard Deviation	7.94	4.68	0.47	0.64	0.76	1.64	1.30	9.85	0.99
Water Level Depth (mBGS)									
[Pre-Injection] Count	497	624	437	608	356	649	477	1441	1050
[Pre-Injection] Min	20.72	4.98	3.78	5.17	38.87	4.72	37.52	1.96	26.20
[Pre-Injection] Max	41.40	9.23	4.81	5.93	39.48	10.19	38.28	3.02	27.97
[Pre-Injection] Mean	23.33	5.91	4.41	5.37	39.19	5.93	37.88	2.47	27.54
[Pre-Injection] Median	21.94	5.77	4.47	5.38	39.14	5.56	37.92	2.50	27.53
[Pre-Injection] Standard Deviation	3.66	0.62	0.21	0.07	0.15	0.96	0.15	0.16	0.18
[2023] Count	596	603	601	603	605	431	609	559	555
[2023] Min	19.60	6.46	4.41	5.30	39.48	5.34	37.83	1.92	27.63
[2023] Max	21.67	9.02	5.04	6.01	40.29	6.23	38.31	2.51	28.04
[2023] Mean	20.01	6.85	4.84	5.42	39.82	5.44	38.09	2.27	27.86
[2023] Median	19.86	6.65	4.88	5.41	39.71	5.40	38.09	2.29	27.87
[2023] Standard Deviation	0.39	0.47	0.18	0.07	0.23	0.15	0.07	0.10	0.08
Water Level Elevation (mASL)									
[Pre-Injection] Count	497	624	437	608	356	649	477	1441	1050
[Pre-Injection] Min	599.69	631.92	636.30	635.21	601.64	625.92	598.01	638.31	613.41
[Pre-Injection] Max	620.37	636.17	637.33	635.97	602.25	631.39	598.77	639.37	615.18
[Pre-Injection] Mean	617.76	635.24	636.70	635.77	601.93	630.18	598.41	638.86	613.84
[Pre-Injection] Median	619.15	635.38	636.64	635.76	601.98	630.55	598.37	638.83	613.85
[Pre-Injection] Standard Deviation	3.66	0.62	0.21	0.07	0.15	0.96	0.15	0.16	0.18
[2023] Count	596	603	601	603	605	431	609	559	555
[2023] Min	619.42	632.13	636.07	635.13	600.83	629.88	597.98	638.82	613.34
[2023] Max	621.49	634.69	636.70	635.84	601.64	630.77	598.46	639.41	613.75
[2023] Mean	621.08	634.30	636.27	635.72	601.30	630.67	598.20	639.06	613.52
[2023] Median	621.23	634.50	636.23	635.73	601.41	630.71	598.20	639.04	613.51
[2023] Standard Deviation	0.39	0.47	0.18	0.07	0.23	0.15	0.07	0.10	0.08
Temperature (deg C)									
[Pre-Injection] Count	608	631	437	622	423	649	552	1441	1273
[Pre-Injection] Min	6.34	5.41	5.02	4.86	8.10	5.04	6.95	4.63	6.19
[Pre-Injection] Max	7.26	5.57	5.18	5.09	8.42	5.23	7.19	11.21	6.50
[Pre-Injection] Mean	6.55	5.45	5.13	4.97	8.18	5.11	7.07	5.21	6.42
[Pre-Injection] Median	6.58	5.44	5.14	4.95	8.16	5.09	7.07	4.78	6.44
[Pre-Injection] Standard Deviation	0.08	0.02	0.04	0.06	0.05	0.05	0.04	1.31	0.04
[2023] Count	605	603	605	603	609	611	609	559	474
[2023] Min	6.47	5.54	5.11	5.32	5.72	5.28	7.20	5.14	6.43
[2023] Max	6.57	5.56	5.71	6.39	8.97	5.35	7.29	5.34	6.47
[2023] Mean	6.52	5.55	5.39	5.35	8.37	5.32	7.24	5.18	6.45
[2023] Median	6.52	5.55	5.39	5.35	8.38	5.32	7.24	5.18	6.45
[2023] Standard Deviation	0.02	0.00	0.02	0.05	0.14	0.01	0.01	0.02	0.01
pH									
[Pre-Injection] Count	540	490	398	433	174	490	544	1415	1229
[Pre-Injection] Min	7.41	7.50	8.46	8.57	10.21	8.26	6.87	7.81	6.70
[Pre-Injection] Max	8.78	8.09	10.64	9.41	11.52	9.55	9.48	10.79	9.40
[Pre-Injection] Mean	8.24	7.84	9.35	8.98	10.90	9.09	8.31	9.00	8.40
[Pre-Injection] Median	8.47	7.80	9.28	8.95	10.74	9.16	8.57	9.02	8.47
[Pre-Injection] Standard Deviation	0.44	0.17	0.47	0.18	0.35	0.29	0.63	0.55	0.47
[2023] Count	605	603	605	603	609	611	609	559	555
[2023] Min	7.41	7.50	7.87	8.30	10.10	9.84	8.11	8.52	7.95
[2023] Max	7.53	7.76	8.09	8.71	11.90	10.23	8.29	9.32	8.46
[2023] Mean	7.47	7.62	8.01	8.55	10.73	10.05	8.19	9.22	8.26
[2023] Median	7.47	7.63	8.01	8.60	10.66	10.02	8.19	9.24	8.26
[2023] Standard Deviation	0.03	0.07	0.04	0.14	0.33	0.10	0.04	0.09	0.09

Table B.3 Summary of 2023 Continuous Water Quality Measurements Statistics

Location	UL1/08-19	UL2/08-19	UL3/08-19	UL4/08-19	1F1/08-19	UL1/07-11	1F1/07-11	UL1/05-35	1F1/05-35
Specific Conductivity (uS/cm)									
[Pre-Injection] Count	391	582	318	622	347	447	552	1397	1145
[Pre-Injection] Min	20,470.07	12,980.72	5,387.74	1,545.55	23,332.51	1,560.84	11,064.08	1,219.50	17,741.70
[Pre-Injection] Max	23,489.80	13,940.27	5,753.35	2,252.48	31,828.21	2,054.93	13,221.86	2,354.11	26,638.23
[Pre-Injection] Mean	21,953.59	13,475.43	5,535.60	1,843.68	27,143.83	1,826.60	12,121.90	1,801.37	22,714.21
[Pre-Injection] Median	22,209.69	13,461.57	5,493.22	1,800.66	27,636.83	1,865.37	12,088.87	1,855.23	23,373.93
[Pre-Injection] Standard Deviation	823.24	256.41	98.76	149.64	1,649.58	155.93	302.47	165.54	2,440.80
[2023] Count	605	603	605	603	609	612	609	559	555
[2023] Min	18,417.80	11,670.48	5,621.40	1,683.70	0.08	1,463.49	10,067.93	1,541.61	21,479.64
[2023] Max	19,733.14	12,174.47	5,767.71	1,758.01	28,704.59	1,522.97	12,494.09	1,771.93	22,649.04
[2023] Mean	19,207.11	11,913.82	5,724.86	1,727.05	27,983.78	1,490.53	12,009.93	1,627.85	22,219.51
[2023] Median	19,294.04	11,856.31	5,716.44	1,719.56	27,939.96	1,492.91	12,121.74	1,584.66	21,985.11
[2023] Standard Deviation	516.19	176.20	32.02	23.28	2,010.60	16.67	526.98	73.67	328.40
Actual Conductivity (uS/cm)									
[Pre-Injection] Count	264	428	224	398	210	313	267	1280	974
[Pre-Injection] Min	13,260.43	8,191.49	3,343.00	1,068.88	15,867.86	969.67	7,699.92	745.37	11,421.84
[Pre-Injection] Max	15,239.53	8,729.58	3,566.56	1,387.73	21,578.70	1,272.30	8,668.61	1,439.35	17,149.29
[Pre-Injection] Mean	14,151.19	8,452.67	3,446.76	1,155.29	18,027.54	1,133.25	8,023.59	1,116.65	14,821.54
[Pre-Injection] Median	13,906.83	8,413.15	3,413.83	1,105.60	17,864.71	1,194.71	8,143.55	1,147.93	15,311.79
[Pre-Injection] Standard Deviation	582.45	152.19	64.40	102.81	1,117.50	111.91	224.22	99.63	1,606.34
[2023] Count	605	603	605	603	609	612	609	559	555
[2023] Min	11,926.09	8,449.27	3,518.67	1,051.74	0.06	915.30	6,646.84	957.56	13,869.30
[2023] Max	12,761.98	8,815.41	3,606.51	1,116.41	19,588.10	950.27	8,252.19	1,101.30	14,622.30
[2023] Mean	12,427.54	8,625.82	3,580.69	1,078.83	19,097.89	930.27	7,934.85	1,011.65	14,345.27
[2023] Median	12,475.78	8,584.73	3,575.61	1,074.44	19,068.49	931.43	8,009.75	985.34	14,195.68
[2023] Standard Deviation	326.97	127.92	19.53	14.78	1,372.18	10.48	348.53	45.98	212.32
Oxygen Reduction Potential (V)									
[Pre-Injection] Count	608	631	437	622	423	649	552	1441	1273
[Pre-Injection] Min	-0.70	-0.48	-0.62	-1.09	-0.88	-0.57	-0.73	-0.70	-0.67
[Pre-Injection] Max	0.46	0.06	0.22	-0.03	1.17	-0.03	0.15	-0.06	1.18
[Pre-Injection] Mean	-0.35	-0.37	-0.45	-0.50	-0.43	-0.40	-0.29	-0.44	-0.35
[Pre-Injection] Median	-0.41	-0.41	-0.48	-0.52	-0.69	-0.42	-0.42	-0.46	-0.41
[Pre-Injection] Standard Deviation	0.21	0.10	0.14	0.11	0.51	0.12	0.29	0.09	0.27
[2023] Count	605	603	605	603	609	611	609	559	555
[2023] Min	-0.46	-0.51	-0.58	-0.58	-0.47	-0.72	-0.60	-0.50	-0.52
[2023] Max	-0.16	-0.22	-0.20	-0.03	-0.01	-0.04	-0.24	-0.15	-0.19
[2023] Mean	-0.42	-0.36	-0.47	-0.53	-0.32	-0.63	-0.53	-0.45	-0.47
[2023] Median	-0.42	-0.31	-0.50	-0.56	-0.30	-0.65	-0.55	-0.46	-0.48
[2023] Standard Deviation	0.04	0.09	0.09	0.07	0.08	0.08	0.08	0.04	0.05

Notes

mASL	metres above sea level
mBGS	metres below ground surface
V	volts
kPA	kilopascals
uS/cm	microSiemens per centimetre

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4a Summary of 2023 Groundwater Quality Analytical Results

Sample Location					1F1/08-19								UL1/08-19				
Sample Date		16-Feb-23	10-May-23	10-May-23	10-May-23		7-Aug-23	7-Aug-23	31-Oct-23	15-Feb-23	9-May-23	9-May-23	8-Aug-23	8-Aug-23	8-Aug-23		31-Oct-23
Sample ID		8195920400-W-23Q1	8195920400-W-23Q2-HS	8195920400-W-23Q2	QC-2023-03		8195920400-W-23Q3-HS	8195920400-W-23Q3	8195920400-W-23Q4	8195920401-W-23Q1	8195920401-W-23Q2-HS	8195920401-W-23Q2	8195920401-W-23Q3-HS	8195920401-W-23Q3	QC-2023-07		8195920401-W-23Q4
Sampling Company		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC
Laboratory		AGAT	AGAT	AGAT	AGAT		AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT		AGAT
Laboratory Work Order		23E999391	23E024528	23E024528	23E024528		23E056715	23E056715	23E089182	23E999391	23E024528	23E024528	23E056715	23E056715	23E056715		23E089182
Laboratory Sample ID		4791909	4987144	4987123	4987132		5205903	5205902	5426869	4791908	4987143	4987124	5205907	5205906	5205910		5426870
Sample Type	Units	No Purge	No Purge		Field Duplicate	RPD (%)	No Purge				No Purge		No Purge		Field Duplicate	RPD (%)	
Field Parameters																	
pH, Field	S.U.	12.2	11.4	11.2	11.2	nc	11.56	11.26	11.49	7.47	7.65	7.37	7.53	7.5	7.5	nc	7.7
Specific Conductance, Field	µS/cm	27,688	28,029	28,664	28,664	nc	26,508	27,760	28,335	18,559	18,588	18,258	17,889	17,785	17,785	nc	17,724
Temperature, Field	deg C	4.8	11.7	12.8	12.8	nc	17	13.5	5.5	2.9	11.6	11.8	11.1	12.4	12.4	nc	6.2
Dissolved Oxygen, Field	mg/L	3.4	2.27	0.33	0.33	nc	1.15	0.65	0.15	0.9	2.43	0.57	2.71	0.73	0.73	nc	0.45
Oxidation Reduction Potential, field	mV	-37.8	107.5	-168.8	-168.8	nc	5.6	-230.6	-69.5	-89	74.4	-58.8	-24.9	-87.3	-87.3	nc	-149.8
Visible Sheen	none	No	No	No	No	nc	No	No	No	No	No	No	No	No	No	nc	No
General Chemistry																	
pH, lab	S.U.	10.4	10.1	9.98	9.90	nc	10.7	10.3	9.99	7.63	7.73	7.74	7.62	7.51	7.56	nc	7.68
Electrical Conductivity, Lab	µS/cm	27,400	28,700	28,900	29,000	0%	28,700	29,700	28,600	17,900	18,800	18,500	19,100	19,000	18,900	1%	18,100
Sodium Adsorption Ratio (SAR)	none	60.6	70.6	68.7	69.8	nc	68.5	69.0	62.6	52.3	59.7	61.7	59.8	60.5	58.9	nc	55.8
Chloride	mg/L	10,000	10,800	11,100	11,000	1%	10,300	10,800	10,700	5,840	6,740	6,750	6,500	6,680	6,610	1%	6,950
Fluoride	mg/L	<0.1	0.2	<0.1	0.2	nc	<0.1	<0.1	<0.20	0.1	0.3	0.1	<0.1	0.2	0.2	nc	<0.08
Sulfate	mg/L	4.1	4.6	5.6	5.0	11%	4.1	4.0	15	44.4	38.8	41.8	39.3	41.0	39.9	3%	43
Total Dissolved Solids (Calculated)	mg/L	15,600	17,500	17,700	17,700	0%	16,800	17,400	16,800	9,350	11,000	11,100	10,600	10,800	10,700	1%	10,700
Ion Balance	%	85	94	92	93	1%	94	93	85	89	95	95	94	92	92	0%	81
Dissolved Inorganic Carbon	mg/L	3.2	5.3	3.7	4.6	22%	2.2	2.1	3.0	34.9	34.3	35.3	34.3	34.5	34.5	0%	34.8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	<5	<5	<5	<5	nc	<5	<5	104	158	171	175	157	154	157	2%	150
Alkalinity, Carbonate (as CaCO3)	mg/L	29	22	20	24	nc	72	56	60	<5	<5	<5	<5	<5	<5	nc	<5
Alkalinity, Hydroxide (as CaCO3)	mg/L	22	16	16	13	nc	30	8	26	<5	<5	<5	<5	<5	<5	nc	<5
Alkalinity (P as CaCO3)	mg/L	88	65	64	58	10%	148	71	55	<5	<5	<5	<5	<5	<5	nc	<5
Alkalinity, Total (as CaCO3)	mg/L	112	83	81	78	4%	208	118	85	130	136	139	129	126	129	2%	123
Hardness (as CaCO3)	mg/L	1,240	1,350	1,410	1,390	1%	1,300	1,360	1,370	674	783	752	721	716	721	1%	697
Calcium	mg/L	484	527	552	545	1%	520	535	536	199	239	227	220	218	220	1%	214
Iron	mg/L	<0.1	<0.1	<0.1	<0.1	nc	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	nc	<0.1
Magnesium	mg/L	8.4	7.2	7.2	7.0	3%	<0.9	7.0	6.9	42.9	45.2	44.9	41.6	41.6	41.8	0%	39.6
Manganese	mg/L	<0.005	<0.005	<0.005	<0.005	nc	<0.005	<0.005	<0.030	0.008	0.008	<0.005	0.211	0.222	0.222	0%	0.207
Potassium	mg/L	84.9	112	99.9	101	1%	125	97.3	92.4	28.5	34.9	35.2	44.0	42.5	42.9	1%	31.4
Sodium	mg/L	4,920	5,960	5,930	5,990	1%	5,680	5,870	5,330	3,120	3,840	3,890	3,690	3,720	3,640	2%	3,390
Nitrogen Compounds																	
Nitrate	mg/L	1.3	<1.0	<1.0	<1.0	nc	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nc	<0.6
Nitrate (as N)	mg/L	0.29	<0.02	<0.02	<0.02	nc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	nc	<0.02
Nitrite	mg/L	<0.40	<0.40	<0.40	<0.40	nc	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	nc	<0.8
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	<0.01	nc	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	nc	<0.01
Nitrate + Nitrite (as N)	mg/L	0.29	<0.02	<0.02	<0.02	nc	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	nc	<0.02
Metals																	
Arsenic	mg/L	<0.001	<0.0010	<0.0010	<0.0010	nc	<0.01	<0.01	<0.001	<0.001	<0.0010	<0.0010	<0.01	<0.01	<0.01	nc	0.002
Isotopes																	
d13C-DIC	‰	NoSignal	ND	ND	ND	nc	NA	NA	NA	-2.2	-2.3	-3.3	-1.3	-2.3	-3	nc	-2.0

See notes on last page

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4a Summary of 2023 Groundwater Quality Analytical Results

Sample Location		UL2/08-19						UL3/08-19					
Sample Date		15-Feb-23	9-May-23	9-May-23	8-Aug-23	8-Aug-23	30-Oct-23	14-Feb-23	8-May-23	8-May-23	7-Aug-23	7-Aug-23	30-Oct-23
Sample ID		8195920402-W-23Q1	8195920402-W-23Q2-HS	8195920402-W-23Q2	8195920402-W-23Q3-HS	8195920402-W-23Q3	8195920402-W-23Q4	8195920403-W-23Q1	8195920403-W-23Q2-HS	8195920403-W-23Q2	8195920403-W-23Q3-HS	8195920403-W-23Q3	8195920403-W-23Q4
Sampling Company		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory		AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT
Laboratory Work Order		23E999391	23E024528	23E024528	23E056715	23E056715	23E089182	23E999391	23E024528	23E024528	23E056715	23E056715	23E089182
Laboratory Sample ID		4791907	4987142	4987125	5205909	5205908	5426871	4791906	4987141	4987126	5205901	5205894	5426872
Sample Type	Units		No Purge		No Purge				No Purge		No Purge		
Field Parameters													
pH, Field	S.U.	7.65	7.64	7.42	7.62	7.51	7.6	8.09	7.98	7.82	7.87	7.84	7.99
Specific Conductance, Field	µS/cm	13,412	13,537	13,388	13,290	13,144	13,288	5,365	5,647	5,547	5,410	5,428	5,488
Temperature, Field	deg C	4.2	10.5	8.7	11.6	12.9	5	4.5	11.1	8.4	15.1	15.7	5.2
Dissolved Oxygen, Field	mg/L	0.85	3.11	2.53	2.24	2.36	0.4	0.74	3.25	1.02	2.47	1.01	1.33
Oxidation Reduction Potential, field	mV	-122	-68.1	-67.8	-103	-104.9	-110.4	-197	-116.1	-163.7	-115.4	-161.1	-157.4
Visible Sheen	none	No	No	No	No	No	No	No	No	No	No	No	No
General Chemistry													
pH, lab	S.U.	7.62	7.71	7.67	7.59	7.66	7.67	8.05	7.97	8.00	7.83	7.79	8.06
Electrical Conductivity, Lab	µS/cm	13,000	13,700	13,600	13,700	13,700	13,300	5,400	6,050	6,060	5,590	5,580	5,500
Sodium Adsorption Ratio (SAR)	none	51.8	59.4	59.6	60.4	60.8	56.3	53.9	62.3	61.9	61.7	61.7	56.2
Chloride	mg/L	4,470	4,770	4,790	4,560	4,810	4,910	1,620	1,800	1,780	1,750	1,760	1,860
Fluoride	mg/L	<0.1	<0.1	<0.1	0.1	<0.1	<0.05	0.34	0.29	0.32	0.28	0.28	<0.05
Sulfate	mg/L	20.5	1.7	1.6	2.8	1.9	4	2.0	1.8	1.7	1.4	1.6	3
Total Dissolved Solids (Calculated)	mg/L	7,000	7,790	7,840	7,510	7,790	7,630	2,780	3,210	3,170	3,080	3,090	3,100
Ion Balance	%	82	93	94	96	92	82	86	97	96	95	95	83
Dissolved Inorganic Carbon	mg/L	40.2	39.2	39.8	38.1	38.3	38.4	71.9	69.7	70.3	67.9	68.1	69.4
Alkalinity, Bicarbonate (as CaCO3)	mg/L	192	187	191	173	175	162	322	329	333	294	298	288
Alkalinity, Carbonate (as CaCO3)	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity (P as CaCO3)	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity, Total (as CaCO3)	mg/L	153	146	152	142	144	133	264	262	264	241	244	236
Hardness (as CaCO3)	mg/L	364	408	412	378	381	367	61.5	71.3	69.8	65.7	65.7	67
Calcium	mg/L	114	131	132	120	121	117	19.2	22.8	22.2	20.7	20.7	21.3
Iron	mg/L	3.3	<0.1	<0.1	<0.1	<0.1	<0.1	3.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium	mg/L	19.2	19.7	20.0	19.1	19.2	18.1	3.3	3.5	3.5	3.4	3.4	3.4
Manganese	mg/L	0.254	0.030	<0.005	0.298	0.314	0.277	0.148	0.129	0.125	0.120	0.127	0.093
Potassium	mg/L	14.6	17.5	18.2	24.7	25.2	16.3	9.6	10.3	10.3	11.8	11.2	9.9
Sodium	mg/L	2,270	2,760	2,780	2,700	2,730	2,480	972	1,210	1,190	1,150	1,150	1,060
Nitrogen Compounds													
Nitrate	mg/L	<1.0	<1.0	<10	<1.0	<1.0	<0.5	<0.5	3.0	<0.5	<0.5	<0.5	<0.5
Nitrate (as N)	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.68	<0.02	<0.02	<0.02	<0.02
Nitrite	mg/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.10	<0.10	<0.10	<0.10	<0.10	<0.05
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate + Nitrite (as N)	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.68	<0.02	<0.02	<0.02	<0.02
Metals													
Arsenic	mg/L	<0.001	<0.0010	<0.0010	<0.01	<0.01	<0.001	<0.001	0.0012	0.0012	<0.01	<0.01	0.001
Isotopes													
d13C-DIC	‰	-4.6	-4.1	-4.6	-3.2	-3.6	-3.9	-6.6	-6.5	-6.4	-5.2	-6.9	-5.8

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SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4a Summary of 2023 Groundwater Quality Analytical Results

Sample Location		UL4/08-19						1F1/07-11					
Sample Date		14-Feb-23	8-May-23	8-May-23	8-Aug-23	8-Aug-23	30-Oct-23	17-Feb-23	12-May-23	12-May-23	10-Aug-23	10-Aug-23	2-Nov-23
Sample ID		8195920404-W-23Q1	8195920404-W-23Q2-HS	8195920404-W-23Q2	8195920404-W-23Q3-HS	8195920404-W-23Q3	8195920404-W-23Q4	7115920400-W-23Q1	7115920400-W-23Q2-HS	7115920400-W-23Q2	7115920400-W-23Q3-HS	7115920400-W-23Q3	7115920400-W-23Q4
Sampling Company		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory		AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT
Laboratory Work Order		23E999391	23E024528	23E024528	23E056715	23E056715	23E089182	23E999391	23E024528	23E024528	23E056715	23E056715	23E089182
Laboratory Sample ID		4791902	4987140	4987127	5205905	5205904	5426873	4791912	4987148	4987130	5205918	5205917	5426867
Sample Type	Units		No Purge		No Purge			No Purge	No Purge		No Purge		
Field Parameters													
pH, Field	S.U.	8.71	8.54	8.44	8.7	8.68	8.49	8.1	8.08	7.94	8.29	8.04	8.04
Specific Conductance, Field	µS/cm	1,736	1,778	1,745	2,467	1,767	1,723	8,703	10,041	11,923	9,595	11,277	10,354
Temperature, Field	deg C	4.1	11.4	9.9	10.1	10.1	3.7	5.8	14	13	13.8	14.1	6.1
Dissolved Oxygen, Field	mg/L	0.75	4.4	0.97	4.2	2.31	2.4	1.87	0.98	0.16	1.55	0.57	0.02
Oxidation Reduction Potential, field	mV	-248	184.2	-148.9	-11	-157.1	-184.6	-194	-151.2	-218.7	-237.1	-234.7	-191
Visible Sheen	none	No	No	No	No	No	No	No	No	No	No	No	No
General Chemistry													
pH, lab	S.U.	8.52	8.47	8.45	8.34	8.38	8.42	7.84	7.96	8.03	7.87	7.96	7.87
Electrical Conductivity, Lab	µS/cm	1,720	1,920	1,920	1,770	1,800	1,730	8,620	10,000	12,400	10,400	11,800	10,500
Sodium Adsorption Ratio (SAR)	none	58.7	55.8	54.8	59.4	59.9	51.7	45.9	55.9	63.7	57.4	60.5	55.9
Chloride	mg/L	70.1	70.7	70.1	70.0	72.9	70	2,850	3,350	4,170	3,570	3,920	3,770
Fluoride	mg/L	0.81	0.78	0.78	0.75	0.74	<0.05	0.10	0.12	0.2	<0.06	<0.1	<0.05
Sulfate	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1	5.7	<1.0	<1.0	<1.0	<1.0	<1
Total Dissolved Solids (Calculated)	mg/L	1,080	1,110	1,090	1,060	1,070	1,020	4,690	5,630	7,030	5,880	6,520	6,000
Ion Balance	%	98	101	99	110	110	104	90	97	99	93	96	85
Dissolved Inorganic Carbon	mg/L	244	238	237	222	227	241	42.6	45	49.3	45.0	46.1	46.2
Alkalinity, Bicarbonate (as CaCO3)	mg/L	1,070	1,090	1,090	1,020	1,010	957	229	223	245	209	216	204
Alkalinity, Carbonate (as CaCO3)	mg/L	26	21	19	8	12	30	<5	<5	<5	<5	<5	<5
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity (P as CaCO3)	mg/L	22	18	16	7	10	15	<5	<5	<5	<5	<5	<5
Alkalinity, Total (as CaCO3)	mg/L	908	910	904	847	850	785	179	174	195	171	177	168
Hardness (as CaCO3)	mg/L	11.3	13.5	13.2	11.8	11.8	13	236	257	318	253	291	249
Calcium	mg/L	3.7	4.4	4.3	3.9	3.9	4.4	62.7	70.4	88.2	69.1	80.4	69.4
Iron	mg/L	1.0	0.5	0.5	0.6	0.6	0.7	5.2	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium	mg/L	0.5	0.6	0.6	0.5	0.5	0.6	19.2	19.6	23.7	19.6	21.8	18.5
Manganese	mg/L	0.035	0.028	0.030	0.031	0.030	0.036	0.329	0.357	0.203	0.320	0.237	0.236
Potassium	mg/L	4.2	4.8	4.7	6.8	8.2	4.8	16.9	20.2	13.5	22.9	18.7	14.3
Sodium	mg/L	454	471	458	469	473	436	1,620	2,060	2,610	2,100	2,370	2,030
Nitrogen Compounds													
Nitrate	mg/L	<0.5	2.4	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<0.5
Nitrate (as N)	mg/L	<0.02	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrite	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.40	<0.20	<0.40	<0.40
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate + Nitrite (as N)	mg/L	<0.02	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Metals													
Arsenic	mg/L	<0.001	<0.0010	<0.0010	<0.01	<0.01	<0.001	<0.001	<0.0010	<0.0010	<0.01	<0.01	<0.001
Isotopes													
d13C-DIC	‰	-14.1	-14.1	-14.3	-13.6	-13.9	-14.1	5.8	3.4	0.9	0.0	NA	3.0

See notes on last page

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4a Summary of 2023 Groundwater Quality Analytical Results

Sample Location		UL1/07-11										1F1/05-35							
Sample Date		17-Feb-23	11-May-23	11-May-23	11-May-23		10-Aug-23	10-Aug-23	10-Aug-23		2-Nov-23	16-Feb-23	11-May-23	11-May-23	9-Aug-23	9-Aug-23	1-Nov-23	31-Oct-23	
Sample ID		7115920401-W-23Q1	7115920401-W-23Q2-HS	7115920401-W-23Q2	QC-2023-04		7115920401-W-23Q3-HS	7115920401-W-23Q3	QC-2023-08		7115920401-W-23Q4	5355921400-W-23Q1	5355921400-W-23Q2-HS	5355921400-W-23Q2	5355921400-W-23Q3-HS	5355921400-W-23Q3	5355921400-W-23Q4	QC-2023-10	
Sampling Company		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory		AGAT	AGAT	AGAT	AGAT		AGAT	AGAT	AGAT		AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	
Laboratory Work Order		23E999391	23E024528	23E024528	23E024528		23E056715	23E056715	23E056715		23E089182	23E999391	23E024528	23E024528	23E056715	23E056715	23E089182	23E089182	
Laboratory Sample ID		4791913	4987147	4987131	4987133		5205916	5205915	5205919		5426868	4791910	4987146	4987128	5205914	5205913	5426808	5426874	
Sample Type	Units	No Purge	No Purge		Field Duplicate	RPD (%)	No Purge		Field Duplicate	RPD (%)		No Purge	No Purge		No Purge			Field Duplicate	RPD (%)
Field Parameters																			
pH, Field	S.U.	10.1	9.96	9.96	9.96	nc	10.16	10.12	10.16	nc	10	9.97	9.09	8.05	8.14	8.14	8.34	8.34	nc
Specific Conductance, Field	µS/cm	1,535	1,896	1,505	1,896	nc	1,641	1,500	1,641	nc	1,471	18,536	19,940	22,249	21,833	21,833	22,062	22,062	nc
Temperature, Field	deg C	4	15.4	11.3	15.4	nc	13.1	14.2	13.1	nc	6.3	6.8	12.4	14.8	11.3	11.3	4.9	4.9	nc
Dissolved Oxygen, Field	mg/L	8.1	3.23	0.42	3.23	nc	4.67	1.43	4.67	nc	1.86	2.07	0.58	0.32	0.53	0.53	0.06	0.06	nc
Oxidation Reduction Potential, field	mV	-4.9	-22.2	-95.4	-22.2	nc	-1.4	-51.9	-1.4	nc	-154.4	-163	-297.8	-253.2	-255.5	-255.5	-204.5	-204.5	nc
Visible Sheen	none	No	No	No	No	nc	No	No	No	nc	No	No	No	No	No	No	No	No	nc
General Chemistry																			
pH, lab	S.U.	9.65	9.56	9.57	9.58	nc	9.66	9.78	9.70	nc	9.58	8.95	7.86	7.66	8.74	7.48	7.51	7.56	nc
Electrical Conductivity, Lab	µS/cm	1,450	1,630	1,630	1,630	0%	1,530	1,560	1,530	0%	1,500	18,000	20,800	22,700	20,100	23,300	22,300	22,300	0%
Sodium Adsorption Ratio (SAR)	none	68.3	72.9	72.7	70.7	nc	76.6	75.0	74.2	nc	60.2	54.7	66.3	63.2	63.6	63.0	59.3	60.8	2%
Chloride	mg/L	86.5	81.5	77.5	79.1	3%	86.0	83.9	88.2	3%	89	6,550	7,700	8,520	7,070	8,300	8,470	8,900	5%
Fluoride	mg/L	1.25	1.25	1.23	1.28	2%	1.22	1.23	1.22	0%	<0.05	0.1	<0.1	<0.1	<0.1	<0.1	<0.08	<0.08	nc
Sulfate	mg/L	2.3	1.6	2.2	1.6	nc	1.6	1.2	1.5	nc	2	13.7	<1.0	<1.0	2.3	<1.0	528	43	**170%**
Total Dissolved Solids (Calculated)	mg/L	856	874	866	864	1%	837	859	835	0%	1,080	10,200	12,400	13,500	11,300	13,200	13,500	13,500	0%
Ion Balance	%	99	102	103	103	1%	116	112	110	5%	65	85	94	91	92	91	79	80	1%
Dissolved Inorganic Carbon	mg/L	140	140	138	141	1%	132	135	129	2%	139	2.1	7.9	12.9	4.4	13.7	13.3	12.3	8%
Alkalinity, Bicarbonate (as CaCO3)	mg/L	477	482	483	469	3%	366	376	378	3%	719	12	41	74	22	68	62	65	5%
Alkalinity, Carbonate (as CaCO3)	mg/L	169	176	171	176	0%	180	197	182	1%	278	16	<5	<5	6	<5	<5	<5	nc
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	<5	<5	nc	<5	<5	<5	nc	<5	<5	<5	<5	<5	<5	<5	<5	nc
Alkalinity (P as CaCO3)	mg/L	141	146	143	146	0%	150	164	151	1%	139	14	<5	<5	<5	<5	<5	<5	nc
Alkalinity, Total (as CaCO3)	mg/L	664	678	668	666	2%	600	636	612	2%	589	31	29	58	27	55	51	53	4%
Hardness (as CaCO3)	mg/L	5.2	5.0	5.0	5.2	4%	4.7	5.0	4.7	0%	6	693	807	996	705	948	917	902	2%
Calcium	mg/L	1.6	1.5	1.5	1.6	6%	1.4	1.5	1.4	nc	1.9	185	227	282	209	271	263	259	2%
Iron	mg/L	<0.1	<0.1	<0.1	0.1	nc	0.3	0.2	0.3	nc	0.8	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	nc
Magnesium	mg/L	0.3	0.3	0.3	0.3	nc	0.3	0.3	0.3	nc	0.4	56.2	58.3	70.9	44.4	66.0	63.2	62.1	2%
Manganese	mg/L	0.005	<0.005	<0.005	<0.005	nc	0.005	<0.005	0.005	nc	0.014	0.454	0.276	0.652	<0.005	0.606	0.520	0.520	0%
Potassium	mg/L	2.3	2.5	2.7	2.8	nc	4.5	5.3	4.6	2%	2.6	15.7	20.6	23.3	28.4	31.3	19.4	21.2	9%
Sodium	mg/L	359	374	373	372	1%	383	385	371	3%	350	3,310	4,330	4,590	3,880	4,460	4,130	4,200	2%
Nitrogen Compounds																			
Nitrate	mg/L	<0.5	<0.5	<0.5	<0.5	nc	<0.5	<0.5	<0.5	nc	<0.5	4.0	<1.0	<1.0	<1.0	<1.0	<0.6	<0.6	nc
Nitrate (as N)	mg/L	<0.02	<0.02	<0.02	<0.02	nc	<0.02	<0.02	<0.02	nc	<0.02	0.90	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	nc
Nitrite	mg/L	<0.05	<0.05	<0.40	0.05	nc	<0.05	<0.05	<0.05	nc	<0.05	<0.40	<0.40	<0.40	<0.40	<0.40	<0.8	<0.8	nc
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	0.02	nc	<0.01	<0.01	<0.01	nc	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	nc
Nitrate + Nitrite (as N)	mg/L	<0.02	<0.02	<0.02	<0.02	nc	<0.02	<0.02	<0.02	nc	<0.02	0.90	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	nc
Metals																			
Arsenic	mg/L	<0.001	<0.0010	<0.0010	<0.0010	nc	<0.01	<0.01	<0.01	nc	<0.001	<0.001	<0.0010	<0.0010	<0.01	<0.01	0.001	<0.001	nc
Isotopes																			
d13C-DIC	‰	-0.2	-1.2	-0.8	-1.2	nc	-0.1	-0.1	0.2	nc	-0.4	13.8	13.8	11.2	NA	12.7	12.2	12.2	nc

See notes on last page

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4a Summary of 2023 Groundwater Quality Analytical Results

Sample Location		UL1/05-35							FIELD BLANK			
Sample Date		16-Feb-23	16-Feb-23		10-May-23	11-May-23	9-Aug-23	9-Aug-23	1-Nov-23	16-Feb-23	12-May-23	10-Aug-23	2-Nov-23
Sample ID		5355921401-W-23Q1	QC-2023-01		5355921401-W-23Q2-HS	5355921401-W-23Q2	5355921401-W-23Q3-HS	5355921401-W-23Q3	5355921401-W-23Q4	QC-2023-02	QC2023-05	QC-2023-09	QC-2023-11
Sampling Company		STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory		AGAT	AGAT		AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT	AGAT
Laboratory Work Order		23E999391	23E999391		23E024528	23E024528	23E056715	23E056715	23E089182	23E999391	23E024528	23E056715	23E089182
Laboratory Sample ID		4791911	4791914	RPD	4987145	4987129	5205912	5205911	5426866	4791915	4987137	5205920	5426875
Sample Type	Units	No Purge	Field Duplicate	(%)	No Purge		No Purge			Field Blank	Field Blank	Field Blank	Field Blank
Field Parameters													
pH, Field	S.U.	9.59	9.59	nc	9.55	7.93	9.45	8.84	8.85	-	-	-	-
Specific Conductance, Field	µS/cm	1,625	1,625	nc	2,086	1,753	1,687	1,724	1,735	-	-	-	-
Temperature, Field	deg C	6.5	6.5	nc	10.9	9	10.7	11.6	6.7	-	-	-	-
Dissolved Oxygen, Field	mg/L	5.24	5.24	nc	2.96	0.36	4.35	0.76	1.95	-	-	-	-
Oxidation Reduction Potential, field	mV	25.6	25.6	nc	-80.7	-162.7	-111.3	-238.1	-236.4	-	-	-	-
Visible Sheen	none	No	No	nc	No	No	No	No	No	-	-	-	-
General Chemistry													
pH, lab	S.U.	9.09	9.06	nc	9.05	8.28	8.96	8.58	8.60	6.72	4.58	4.43	6.25
Electrical Conductivity, Lab	µS/cm	1,580	1,580	0%	1,800	1,940	1,570	1,800	1,820	<5	<5	<5	3
Sodium Adsorption Ratio (SAR)	none	27.6	27.7	nc	28.3	18.5	26.9	21.3	20.2	0.42	0	0	<0.02
Chloride	mg/L	30.4	29.2	4%	29.7	17.7	31.2	14.6	18	<1.0	<1.0	<1.0	7
Fluoride	mg/L	0.12	0.13	8%	0.15	0.17	0.11	0.15	<0.05	<0.01	<0.01	<0.01	<0.05
Sulfate	mg/L	186	189	2%	173	212	175	201	185	<1.0	<1.0	<1.0	<1
Total Dissolved Solids (Calculated)	mg/L	1,040	1,040	0%	1,050	1,170	976	1,140	1,130	4.6	<0.6	<0.6	7.0
Ion Balance	%	99	100	1%	103	103	107	106	98	45	13	13	<1
Dissolved Inorganic Carbon	mg/L	172	169	2%	190	196	157	189	204	<0.5	<0.5	<0.5	<0.5
Alkalinity, Bicarbonate (as CaCO3)	mg/L	683	684	0%	691	947	623	854	863	7	<5	<5	<5
Alkalinity, Carbonate (as CaCO3)	mg/L	72	71	1%	77	<5	57	29	57	<5	<5	<5	<5
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	nc	<5	<5	<5	<5	<5	<5	<5	<5	<5
Alkalinity (P as CaCO3)	mg/L	60	59	2%	64	<5	47	24	29	<5	<5	<5	<5
Alkalinity, Total (as CaCO3)	mg/L	670	668	0%	682	763	605	749	708	<5	<5	<5	<5
Hardness (as CaCO3)	mg/L	39.2	39.6	1%	39.9	104	39.2	79.4	80	<0.5	<0.5	<0.5	<1
Calcium	mg/L	4.3	4.3	0%	4.6	23.1	4.5	15.3	15.7	<0.3	<0.3	<0.3	<0.3
Iron	mg/L	<0.1	<0.1	nc	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium	mg/L	6.9	7.0	1%	6.9	11.3	6.8	10.0	10.0	<0.2	<0.2	<0.2	<0.2
Manganese	mg/L	0.008	0.007	nc	<0.005	0.078	0.006	0.038	0.027	<0.005	<0.005	<0.005	<0.005
Potassium	mg/L	5.6	5.5	2%	6.3	6.5	8.1	9.2	6.1	<0.6	<0.6	<0.6	<0.6
Sodium	mg/L	397	400	1%	411	434	387	437	417	1.2	<0.6	<0.6	<0.6
Nitrogen Compounds													
Nitrate	mg/L	<0.5	<0.5	nc	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate (as N)	mg/L	<0.02	<0.02	nc	<0.02	0.45	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrite	mg/L	<0.05	<0.05	nc	<0.05	<0.40	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrite (as N)	mg/L	<0.01	<0.01	nc	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate + Nitrite (as N)	mg/L	<0.02	<0.02	nc	<0.02	0.45	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Metals													
Arsenic	mg/L	<0.001	<0.001	nc	0.0016	<0.0010	<0.01	<0.01	0.002	<0.001	<0.0010	<0.001	<0.001
Isotopes													
d13C-DIC	‰	-16.1	-15.7	nc	-17.5	-16.8	-15.6	-17.1	-17.0	ND	ND	-	-

Notes:

<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
NA	Not analyzed.
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective of 40%.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4b Summary of 2023 Sampling Method RPD Results

Sample Location		1F1/08-19						UL1/08-19								UL2/08-19			
Sample Date		10-May-23	10-May-23		7-Aug-23	7-Aug-23		9-May-23	9-May-23		8-Aug-23	8-Aug-23		9-May-23	9-May-23		8-Aug-23	8-Aug-23	
Sample ID		8195920400-W-23Q2-HS	8195920400-W-23Q2		8195920400-W-23Q3-HS	8195920400-W-23Q3		8195920401-W-23Q2-HS	8195920401-W-23Q2		8195920401-W-23Q3-HS	8195920401-W-23Q3		8195920402-W-23Q2-HS	8195920402-W-23Q2		8195920402-W-23Q3-HS	8195920402-W-23Q3	
Sampling Company		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	
Laboratory		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT	
Laboratory Work Order		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715	
Laboratory Sample ID		4987144	4987123	RPD	5205903	5205902	RPD	4987143	4987124	RPD	5205907	5205906	RPD	4987142	4987125	RPD	5205909	5205908	RPD
Sample Type	Units	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)
Field Parameters																			
pH, Field	S.U.	11.4	11.2	nc	11.56	11.26	nc	7.65	7.37	nc	7.53	7.5	nc	7.64	7.42	nc	7.62	7.51	nc
Specific Conductance, Field	µS/cm	28,029	28,664	nc	26,508	27,760	nc	18,588	18,258	nc	17,889	17,785	nc	13,537	13,388	nc	13,290	13,144	nc
Temperature, Field	deg C	11.7	12.8	nc	17	13.5	nc	11.6	11.8	nc	11.1	12.4	nc	10.5	8.7	nc	11.6	12.9	nc
Dissolved Oxygen, Field	mg/L	2.27	0.33	nc	1.15	0.65	nc	2.43	0.57	nc	2.71	0.73	nc	3.11	2.53	nc	2.24	2.36	nc
Oxidation Reduction Potential, field	mV	107.5	-168.8	nc	5.6	-230.6	nc	74.4	-58.8	nc	-24.9	-87.3	nc	-68.1	-67.8	nc	-103	-104.9	nc
Visible Sheen	none	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc
General Chemistry																			
pH, lab	S.U.	10.1	9.98	1%	10.7	10.3	4%	7.73	7.74	0%	7.62	7.51	1%	7.71	7.67	1%	7.59	7.66	1%
Electrical Conductivity, Lab	µS/cm	28,700	28,900	1%	28,700	29,700	3%	18,800	18,500	2%	19,100	19,000	1%	13,700	13,600	1%	13,700	13,700	0%
Sodium Adsorption Ratio (SAR)	none	70.6	68.7	nc	68.5	69.0	nc	59.7	61.7	nc	59.8	60.5	nc	59.4	59.6	nc	60.4	60.8	nc
Chloride	mg/L	10,800	11,100	3%	10,300	10,800	5%	6,740	6,750	0%	6,500	6,680	3%	4,770	4,790	0%	4,560	4,810	5%
Fluoride	mg/L	0.2	<0.1	nc	<0.1	<0.1	nc	0.3	0.1	**100%**	<0.1	0.2	nc	<0.1	<0.1	nc	0.1	<0.1	nc
Sulfate	mg/L	4.6	5.6	20%	4.1	4.0	2%	38.8	41.8	7%	39.3	41.0	4%	1.7	1.6	6%	2.8	1.9	38%
Total Dissolved Solids (Calculated)	mg/L	17,500	17,700	1%	16,800	17,400	4%	11,000	11,100	1%	10,600	10,800	2%	7,790	7,840	1%	7,510	7,790	4%
Ion Balance	%	94	92	2%	94	93	1%	95	95	0%	94	92	2%	93	94	1%	96	92	4%
Dissolved Inorganic Carbon	mg/L	5.3	3.7	36%	2.2	2.1	5%	34.3	35.3	3%	34.3	34.5	1%	39.2	39.8	2%	38.1	38.3	1%
Alkalinity, Bicarbonate (as CaCO3)	mg/L	<5	<5	nc	<5	<5	nc	171	175	2%	157	154	2%	187	191	2%	173	175	1%
Alkalinity, Carbonate (as CaCO3)	mg/L	22	20	10%	72	56	25%	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc
Alkalinity, Hydroxide (as CaCO3)	mg/L	16	16	0%	30	8	**116%**	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc
Alkalinity (P as CaCO3)	mg/L	65	64	2%	148	71	**70%**	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc
Alkalinity, Total (as CaCO3)	mg/L	83	81	2%	208	118	**55%**	136	139	2%	129	126	2%	146	152	4%	142	144	1%
Hardness (as CaCO3)	mg/L	1,350	1,410	4%	1,300	1,360	5%	783	752	4%	721	716	1%	408	412	1%	378	381	1%
Calcium	mg/L	527	552	5%	520	535	3%	239	227	5%	220	218	1%	131	132	1%	120	121	1%
Iron	mg/L	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc
Magnesium	mg/L	7.2	7.2	0%	<0.9	7.0	nc	45.2	44.9	1%	41.6	41.6	0%	19.7	20.0	2%	19.1	19.2	1%
Manganese	mg/L	<0.005	<0.005	nc	<0.005	<0.005	nc	0.008	<0.005	nc	0.211	0.222	5%	0.030	<0.005	nc	0.298	0.314	5%
Potassium	mg/L	112	99.9	11%	125	97.3	25%	34.9	35.2	1%	44.0	42.5	3%	17.5	18.2	4%	24.7	25.2	2%
Sodium	mg/L	5,960	5,930	1%	5,680	5,870	3%	3,840	3,890	1%	3,690	3,720	1%	2,760	2,780	1%	2,700	2,730	1%
Nitrogen Compounds																			
Nitrate	mg/L	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<10	nc	<1.0	<1.0	nc
Nitrate (as N)	mg/L	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Nitrite	mg/L	<0.40	<0.40	nc	<0.40	<0.40	nc	<0.40	<0.40	nc	<0.40	<0.40	nc	<0.40	<0.40	nc	<0.40	<0.40	nc
Nitrite (as N)	mg/L	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Nitrate + Nitrite (as N)	mg/L	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Metals																			
Arsenic	mg/L	<0.0010	<0.0010	nc	<0.01	<0.01	nc	<0.0010	<0.0010	nc	<0.01	<0.01	nc	<0.0010	<0.0010	nc	<0.01	<0.01	nc
Isotopes																			
d13C-DIC	‰	ND	ND	nc	NA	NA	nc	-2.3	-3.3	nc	-1.3	-2.3	nc	-4.1	-4.6	nc	-3.2	-3.6	nc

See notes on last page

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4b Summary of 2023 Sampling Method RPD Results

Sample Location		UL3/08-19						UL4/08-19						1F1/07-11					
Sample Date		8-May-23	8-May-23		7-Aug-23	7-Aug-23		8-May-23	8-May-23		8-Aug-23	8-Aug-23		12-May-23	12-May-23		10-Aug-23	10-Aug-23	
Sample ID		8195920403-W-23Q2-HS	8195920403-W-23Q2		8195920403-W-23Q3-HS	8195920403-W-23Q3		8195920404-W-23Q2-HS	8195920404-W-23Q2		8195920404-W-23Q3-HS	8195920404-W-23Q3		7115920400-W-23Q2-HS	7115920400-W-23Q2		7115920400-W-23Q3-HS	7115920400-W-23Q3	
Sampling Company		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	
Laboratory		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT	
Laboratory Work Order		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715	
Laboratory Sample ID		4987141	4987126	RPD	5205901	5205894	RPD	4987140	4987127	RPD	5205905	5205904	RPD	4987148	4987130	RPD	5205918	5205917	RPD
Sample Type	Units	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)
Field Parameters																			
pH, Field	S.U.	7.98	7.82	nc	7.87	7.84	nc	8.54	8.44	nc	8.7	8.68	nc	8.08	7.94	nc	8.29	8.04	nc
Specific Conductance, Field	µS/cm	5,647	5,547	nc	5,410	5,428	nc	1,778	1,745	nc	2,467	1,767	nc	10,041	11,923	nc	9,595	11,277	nc
Temperature, Field	deg C	11.1	8.4	nc	15.1	15.7	nc	11.4	9.9	nc	10.1	10.1	nc	14	13	nc	13.8	14.1	nc
Dissolved Oxygen, Field	mg/L	3.25	1.02	nc	2.47	1.01	nc	4.4	0.97	nc	4.2	2.31	nc	0.98	0.16	nc	1.55	0.57	nc
Oxidation Reduction Potential, field	mV	-116.1	-163.7	nc	-115.4	-161.1	nc	184.2	-148.9	nc	-11	-157.1	nc	-151.2	-218.7	nc	-237.1	-234.7	nc
Visible Sheen	none	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc
General Chemistry																			
pH, lab	S.U.	7.97	8.00	0%	7.83	7.79	1%	8.47	8.45	0%	8.34	8.38	0%	7.96	8.03	1%	7.87	7.96	1%
Electrical Conductivity, Lab	µS/cm	6,050	6,060	0%	5,590	5,580	0%	1,920	1,920	0%	1,770	1,800	2%	10,000	12,400	**21%**	10,400	11,800	13%
Sodium Adsorption Ratio (SAR)	none	62.3	61.9	nc	61.7	61.7	nc	55.8	54.8	nc	59.4	59.9	nc	55.9	63.7	nc	57.4	60.5	nc
Chloride	mg/L	1,800	1,780	1%	1,750	1,760	1%	70.7	70.1	1%	70.0	72.9	4%	3,350	4,170	22%	3,570	3,920	9%
Fluoride	mg/L	0.29	0.32	10%	0.28	0.28	0%	0.78	0.78	0%	0.75	0.74	1%	0.12	0.2	**50%**	<0.06	<0.1	nc
Sulfate	mg/L	1.8	1.7	6%	1.4	1.6	13%	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	nc	<1.0	<1.0	3%
Total Dissolved Solids (Calculated)	mg/L	3,210	3,170	1%	3,080	3,090	0%	1,110	1,090	2%	1,060	1,070	1%	5,630	7,030	22%	5,880	6,520	10%
Ion Balance	%	97	96	1%	95	95	0%	101	99	2%	110	110	0%	97	99	2%	93	96	3%
Dissolved Inorganic Carbon	mg/L	69.7	70.3	1%	67.9	68.1	0%	238	237	0%	222	227	2%	45	49.3	9%	45.0	46.1	2%
Alkalinity, Bicarbonate (as CaCO3)	mg/L	329	333	1%	294	298	1%	1,090	1,090	0%	1,020	1,010	1%	223	245	9%	209	216	3%
Alkalinity, Carbonate (as CaCO3)	mg/L	<5	<5	nc	<5	<5	nc	21	19	10%	8	12	**40.0%**	<5	<5	nc	<5	<5	nc
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc
Alkalinity (P as CaCO3)	mg/L	<5	<5	nc	<5	<5	nc	18	16	12%	7	10	35%	<5	<5	nc	<5	<5	nc
Alkalinity, Total (as CaCO3)	mg/L	262	264	1%	241	244	1%	910	904	1%	847	850	0%	174	195	11%	171	177	3%
Hardness (as CaCO3)	mg/L	71.3	69.8	2%	65.7	65.7	0%	13.5	13.2	2%	11.8	11.8	0%	257	318	21%	253	291	14%
Calcium	mg/L	22.8	22.2	3%	20.7	20.7	0%	4.4	4.3	2%	3.9	3.9	0%	70.4	88.2	22%	69.1	80.4	15%
Iron	mg/L	<0.1	<0.1	nc	<0.1	<0.1	nc	0.5	0.5	0%	0.6	0.6	0%	<0.1	<0.1	nc	<0.1	<0.1	nc
Magnesium	mg/L	3.5	3.5	0%	3.4	3.4	0%	0.6	0.6	0%	0.5	0.5	0%	19.6	23.7	19%	19.6	21.8	11%
Manganese	mg/L	0.129	0.125	3%	0.120	0.127	6%	0.028	0.030	7%	0.031	0.030	3%	0.357	0.203	**55%**	0.320	0.237	30%
Potassium	mg/L	10.3	10.3	0%	11.8	11.2	5%	4.8	4.7	2%	6.8	8.2	19%	20.2	13.5	39.8%	22.9	18.7	20%
Sodium	mg/L	1,210	1,190	2%	1,150	1,150	0%	471	458	3%	469	473	1%	2,060	2,610	24%	2,100	2,370	12%
Nitrogen Compounds																			
Nitrate	mg/L	3.0	<0.5	nc	<0.5	<0.5	nc	2.4	<1.0	nc	<0.5	<0.5	nc	<0.5	<1.0	nc	<5	<1.0	nc
Nitrate (as N)	mg/L	0.68	<0.02	nc	<0.02	<0.02	nc	0.54	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Nitrite	mg/L	<0.10	<0.10	nc	<0.10	<0.10	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.20	<0.40	nc	<0.20	<0.40	nc
Nitrite (as N)	mg/L	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Nitrate + Nitrite (as N)	mg/L	0.68	<0.02	nc	<0.02	<0.02	nc	0.54	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Metals																			
Arsenic	mg/L	0.0012	0.0012	0%	<0.01	<0.01	nc	<0.0010	<0.0010	nc	<0.01	<0.01	nc	<0.0010	<0.0010	nc	<0.01	<0.01	nc
Isotopes																			
d13C-DIC	‰	-6.5	-6.4	nc	-5.2	-6.9	nc	-14.1	-14.3	nc	-13.6	-13.9	nc	3.4	0.9	nc	0.0	NA	nc

See notes on last page

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.4b Summary of 2023 Sampling Method RPD Results

Sample Location		UL1/07-11						1F1/05-35						UL1/05-35					
Sample Date		11-May-23	11-May-23		10-Aug-23	10-Aug-23		11-May-23	11-May-23		9-Aug-23	9-Aug-23		10-May-23	11-May-23		9-Aug-23	9-Aug-23	
Sample ID		7115920401-W-23Q2-HS	7115920401-W-23Q2		7115920401-W-23Q3-HS	7115920401-W-23Q3		5355921400-W-23Q2-HS	5355921400-W-23Q2		5355921400-W-23Q3-HS	5355921400-W-23Q3		5355921401-W-23Q2-HS	5355921401-W-23Q2		5355921401-W-23Q3-HS	5355921401-W-23Q3	
Sampling Company		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	
Laboratory		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT		AGAT	AGAT	
Laboratory Work Order		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715		23E024528	23E024528		23E056715	23E056715	
Laboratory Sample ID		4987147	4987131	RPD	5205916	5205915	RPD	4987146	4987128	RPD	5205914	5205913	RPD	4987145	4987129	RPD	5205912	5205911	RPD
Sample Type	Units	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)	No Purge		(%)
Field Parameters																			
pH, Field	S.U.	9.96	9.96	nc	10.16	10.12	nc	9.09	8.05	nc	8.14	8.14	nc	9.55	7.93	nc	9.45	8.84	nc
Specific Conductance, Field	µS/cm	1,896	1,505	nc	1,641	1,500	nc	19,940	22,249	nc	21,833	21,833	nc	2,086	1,753	nc	1,687	1,724	nc
Temperature, Field	deg C	15.4	11.3	nc	13.1	14.2	nc	12.4	14.8	nc	11.3	11.3	nc	10.9	9	nc	10.7	11.6	nc
Dissolved Oxygen, Field	mg/L	3.23	0.42	nc	4.67	1.43	nc	0.58	0.32	nc	0.53	0.53	nc	2.96	0.36	nc	4.35	0.76	nc
Oxidation Reduction Potential, field	mV	-22.2	-95.4	nc	-1.4	-51.9	nc	-297.8	-253.2	nc	-255.5	-255.5	nc	-80.7	-162.7	nc	-111.3	-238.1	nc
Visible Sheen	none	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc	No	No	nc
General Chemistry																			
pH, lab	S.U.	9.56	9.57	0%	9.66	9.78	1%	7.86	7.66	3%	8.74	7.48	16%	9.05	8.28	9%	8.96	8.58	4%
Electrical Conductivity, Lab	µS/cm	1,630	1,630	0%	1,530	1,560	2%	20,800	22,700	9%	20,100	23,300	15%	1,800	1,940	7%	1,570	1,800	14%
Sodium Adsorption Ratio (SAR)	none	72.9	72.7	nc	76.6	75.0	nc	66.3	63.2	nc	63.6	63.0	nc	28.3	18.5	nc	26.9	21.3	nc
Chloride	mg/L	81.5	77.5	5%	86.0	83.9	2%	7,700	8,520	10%	7,070	8,300	16%	29.7	17.7	**51%**	31.2	14.6	**72%**
Fluoride	mg/L	1.25	1.23	2%	1.22	1.23	1%	<0.1	<0.1	nc	<0.1	<0.1	nc	0.15	0.17	13%	0.11	0.15	31%
Sulfate	mg/L	1.6	2.2	32%	1.6	1.2	29%	<1.0	<1.0	nc	2.3	<1.0	nc	173	212	20%	175	201	14%
Total Dissolved Solids (Calculated)	mg/L	874	866	1%	837	859	3%	12,400	13,500	8%	11,300	13,200	16%	1,050	1,170	11%	976	1,140	16%
Ion Balance	%	102	103	1%	116	112	4%	94	91	3%	92	91	1%	103	103	0%	107	106	1%
Dissolved Inorganic Carbon	mg/L	140	138	1%	132	135	2%	7.9	12.9	**48%**	4.4	13.7	**103%**	190	196	3%	157	189	18%
Alkalinity, Bicarbonate (as CaCO3)	mg/L	482	483	0%	366	376	3%	41	74	**57%**	22	68	**102%**	691	947	31%	623	854	31%
Alkalinity, Carbonate (as CaCO3)	mg/L	176	171	3%	180	197	9%	<5	<5	nc	6	<5	nc	77	<5	nc	57	29	**65%**
Alkalinity, Hydroxide (as CaCO3)	mg/L	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc	<5	<5	nc
Alkalinity (P as CaCO3)	mg/L	146	143	2%	150	164	9%	<5	<5	nc	<5	<5	nc	64	<5	nc	47	24	**65%**
Alkalinity, Total (as CaCO3)	mg/L	678	668	1%	600	636	6%	29	58	**67%**	27	55	**68%**	682	763	11%	605	749	21%
Hardness (as CaCO3)	mg/L	5.0	5.0	0%	4.7	5.0	6%	807	996	21%	705	948	29%	39.9	104	**89%**	39.2	79.4	**68%**
Calcium	mg/L	1.5	1.5	0%	1.4	1.5	7%	227	282	22%	209	271	26%	4.6	23.1	**134%**	4.5	15.3	**109%**
Iron	mg/L	<0.1	<0.1	nc	0.3	0.2	**40.0%**	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc
Magnesium	mg/L	0.3	0.3	0%	0.3	0.3	0%	58.3	70.9	20%	44.4	66.0	39%	6.9	11.3	**48%**	6.8	10.0	38%
Manganese	mg/L	<0.005	<0.005	nc	0.005	<0.005	nc	0.276	0.652	**81%**	<0.005	0.606	nc	<0.005	0.078	nc	0.006	0.038	**145%**
Potassium	mg/L	2.5	2.7	8%	4.5	5.3	16%	20.6	23.3	12%	28.4	31.3	10%	6.3	6.5	3%	8.1	9.2	13%
Sodium	mg/L	374	373	0%	383	385	1%	4,330	4,590	6%	3,880	4,460	14%	411	434	5%	387	437	12%
Nitrogen Compounds																			
Nitrate	mg/L	<0.5	<0.5	nc	<0.5	<0.5	nc	<1.0	<1.0	nc	<1.0	<1.0	nc	<0.5	2.0	nc	<0.5	<0.5	nc
Nitrate (as N)	mg/L	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	0.45	nc	<0.02	<0.02	nc
Nitrite	mg/L	<0.05	<0.40	nc	<0.05	<0.05	nc	<0.40	<0.40	nc	<0.40	<0.40	nc	<0.05	<0.40	nc	<0.05	<0.05	nc
Nitrite (as N)	mg/L	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
Nitrate + Nitrite (as N)	mg/L	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	0.45	nc	<0.02	<0.02	nc
Metals																			
Arsenic	mg/L	<0.0010	<0.0010	nc	<0.01	<0.01	nc	<0.0010	<0.0010	nc	<0.01	<0.01	nc	0.0016	<0.0010	nc	<0.01	<0.01	nc
Isotopes																			
d13C-DIC	‰	-1.2	-0.8	nc	-0.1	-0.1	nc	13.8	11.2	nc	NA	12.7	nc	-17.5	-16.8	nc	-15.6	-17.1	nc

Notes:

<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
NA	Not analyzed.
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.

SHELL CANADA LIMITED
Quest Carbon Capture and Storage Project
2023 Hydrospehere Monitoring Program
Table B.5 Summary of 2023 Free Gas Discrete Water Quality Analytical Results

Sample Location		1F1/08-19					1F1/07-11						1F1/05-35			
Sample Date		10-May-23	10-May-23		7-Aug-23	31-Oct-23	12-May-23	10-Aug-23	10-Aug-23		2-Nov-23	11-May-23	1-Nov-23	1-Nov-23		
Sample ID		8195920400-G-23Q2	QC-2023-03-G		819520400-G-23Q3	8195920400-G-23Q4	7115920400-G-23Q2	7115920400-G-23Q3	QC-G-01-23Q3		7115920400-G-23Q4	5355921400-G-23Q2	5355921400-G-23Q4	QC-2023-10-G		
Sampling Company		STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC		
Laboratory		AGAT	AGAT		AGAT	AGAT	AGAT	AGAT	AGAT		AGAT	AGAT	AGAT	AGAT		
Laboratory Work Order		23C024670	23C024670		23C057048	23C089755	23C024670	23C057048	23C057048		23C089755	23C024670	23C089755	23C089755		
Laboratory Sample ID		4987134A	4987136A	RPD	5205927A	5426947A	4987138A	5205936A	5205923A	RPD	5426928A	4987135A	5426946A	5426948A	RPD	
Sample Type	Units		Field Duplicate	(%)					Field Duplicate	(%)				Field Duplicate	(%)	
Gases																
Butane	%	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	nc	
Carbon Dioxide	%	0.03	0.03	nc	0.01	0.0278	0.10	0.10	0.11	0.095	0.0966	0.04	0.0216	0.0179	nc	
Decane (C10)+	%	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	nc	
Ethane	%	0.03	0.02	nc	0.03	0.0378	0.13	0.14	0.14	0	0.1205	0.03	0.0355	0.0348	nc	
Helium	%	<0.01	<0.01	nc	<0.01	<0.01	0.01	0.01	<0.01	nc	0.0176	<0.01	<0.01	<0.01	nc	
Heptane (C7)	%	<0.001	<0.001	nc	0.030	<0.001	<0.001	0.034	0.021	**0.473**	<0.001	<0.001	<0.001	<0.001	nc	
Hexane (n-Hexane)	%	<0.001	<0.001	nc	0.007	<0.001	<0.001	0.010	0.005	**0.667**	<0.001	<0.001	<0.001	<0.001	nc	
Hydrogen	%	0.16	0.18	0.118	0.24	0.2412	<0.01	<0.01	<0.01	nc	<0.01	0.65	0.3107	0.5824	**0.608**	
Hydrogen Sulfide	%	<0.0001	<0.0001	nc	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	nc	<0.0001	<0.0001	<0.0001	<0.0001	nc	
Isobutane	%	<0.001	<0.001	nc	<0.001	<0.001	<0.001	0.002	<0.002	nc	0.0013	<0.001	<0.001	<0.001	nc	
Isopentane	%	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	nc	
Methane	%	84.72	89.08	0.05	89.59	88.6779	96.13	95.27	95.60	0.003	96.5602	94.11	95.2888	94.1250	0.012	
Nitrogen	%	12.0	8.5	0.341	8.1	8.8333	2.9	3.5	3.2	0.09	2.6021	4.1	3.3059	4.1735	0.232	
Nonane (C9)	%	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	<0.001	nc	<0.001	<0.001	<0.001	<0.001	nc	
Octane (C8)	%	<0.001	<0.001	nc	0.018	<0.001	<0.001	0.018	0.013	0.323	<0.001	<0.001	<0.001	<0.001	nc	
Oxygen	%	3.05	2.16	0.342	1.97	2.1780	0.74	0.90	0.84	0.069	0.5907	1.04	1.0304	1.0577	0.026	
Pentane	%	<0.001	<0.001	nc	0.001	<0.001	<0.001	0.002	<0.001	nc	<0.001	<0.001	<0.001	<0.001	nc	
Propane	%	<0.001	<0.001	nc	<0.001	<0.001	0.008	0.008	<0.008	0	0.0066	<0.001	<0.001	<0.001	nc	
Isotopes																
d13C_CH4	‰	-	-	-	-63.4	-61.7	-	-64.1	-64.4	nc	-61.25	-	-59.45	-64.96	nc	
d13C2	‰	-	-	-	-51.5	-49.15	-	-50.4	-51	nc	-48.38	-	-49.86	-51.61	nc	
d13C3	‰	-	-	-	<	-34.46 ISO	-	-37.6	<	nc	-37.48	-	-31.21 ISO	-35.75 ISO	nc	
d13CO2	‰	-	-	-	-16	< DL	-	-10.2	-11	nc	< DL	-	< DL	< DL	nc	
d13iC4	‰	-	-	-	<	-28.79 ISO	-	< DL	<	nc	-30.11	-	<	<	nc	
d13nC4	‰	-	-	-	<	-32.5 ISO	-	<	<	nc	-36.46 ISO	-	<	<	nc	

Notes:

<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective of 40%.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.
ISO	Isotope value measured despite parent sample gas composition below reportable detection limits. Indicates potential issue with sample result validity.
< DL	Isotope value not measured despite parent sample gas composition above reportable detection limit. Indicates potential issue with sample result validity.

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2023 Hydrosphere Monitoring Program

Table B.6 Summary of Mann-Kendall Trend Analysis

	Injection Well			08-19-059-20 W4M										07-11-059-20 W4M				05-35-059-21 W4M			
	Project Well			UL1/08-19		UL2/08-19		UL3/08-19		UL4/08-19		1F1/08-19		UL1/07-11		1F1/07-11		UL1/05-35		1F1/05-35	
	Data Set			Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection	Pre-Injection	Post-Injection
Groundwater	pH, Field	Mann Kendall Trend		80.9% (-)	50.0% (+)	86.5% (-)	87.0% (+)	89.2% (-)	**98.1% (sig -)**	60.3% (-)	76.7% (-)	90.7% (+)	78.6% (+)	94.6% (+)	100.0% (sig +)	87.0% (+)	**99.2% (sig -)**	99.4% (sig +)	53.9% (+)	75.4% (-)	93.0% (-)
		Count		7	25	9	26	10	26	10	26	10	26	10	26	9	26	23	15	23	15
		Minimum	S.U.	6.46	7.17	6.71	7.30	6.08	7.28	6.28	7.68	8.90	9.45	8.33	8.91	6.69	7.43	7.01	7.52	7.22	8.14
		Maximum	S.U.	8.20	8.08	8.27	8.06	9.46	8.96	9.07	8.76	10.81	12.20	9.54	10.20	8.61	9.69	9.32	9.70	9.77	9.97
		Average	S.U.	7.80	7.50	7.65	7.56	8.76	8.00	8.37	8.56	10.27	11.30	8.98	9.68	8.12	8.14	8.07	8.82	8.34	8.78
	pH, lab	Mann Kendall Trend		82.1% (-)	100.0% (sig +)	**99.2% (sig -)**	100.0% (sig +)	63.1% (-)	67.8% (+)	94.2% (-)	99.7% (sig +)	**99.2% (sig -)**	93.6% (+)	77.7% (-)	100.0% (sig +)	94.6% (-)	98.5% (sig +)	84.8% (+)	73.6% (+)	**97.1% (sig -)**	82.0% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	S.U.	7.60	7.09	7.26	7.10	8.04	7.53	8.42	8.17	9.16	9.36	8.71	8.48	7.55	7.34	7.67	8.28	7.14	7.45
		Maximum	S.U.	8.18	7.92	8.13	8.01	9.60	8.53	9.31	8.69	11.90	11.50	9.92	9.78	9.02	8.10	9.04	9.09	8.25	9.53
		Average	S.U.	7.88	7.55	7.84	7.58	8.80	8.02	8.79	8.43	10.08	10.25	9.26	9.30	8.13	7.82	8.27	8.70	7.60	8.00
	Electrical Conductivity, Field	Mann Kendall Trend		61.4% (+)	100.0% (sig -)	54.0% (-)	92.7% (+)	70.0% (-)	93.3% (+)	95.5% (sig -)	**99.5% (sig +)**	89.2% (-)	67.0% (+)	83.2% (-)	**100.0% (sig +)**	54.0% (+)	97.8% (sig -)	82.2% (-)	68.7% (-)	50.0% (+)	84.8% (+)
		Count		7	25	9	26	10	26	10	26	10	26	10	26	9	26	23	15	23	15
		Minimum	uS/cm	17,215	17,724	10,164	12,103	553	3,365	1,717	1,540	25,310	26,263	1,234	1,232	3,692	6,822	1,175	1,540	13,421	15,180
		Maximum	uS/cm	28,075	22,560	14,328	13,740	6,922	5,733	1,994	2,467	35,992	30,155	1,690	1,896	13,439	12,608	1,930	2,086	27,527	22,840
		Average	uS/cm	21,842	19,800	13,040	13,177	5,210	5,356	1,813	1,741	29,829	28,218	1,437	1,449	10,835	10,338	1,766	1,772	21,277	20,473
	Electrical Conductivity, Lab	Mann Kendall Trend		93.6% (-)	100.0% (sig -)	99.2% (sig -)	93.3% (+)	87.5% (-)	88.7% (+)	90.2% (-)	**97.5% (sig +)**	53.0% (-)	90.7% (+)	99.3% (sig -)	**100.0% (sig +)**	90.7% (+)	87.9% (-)	93.4% (-)	73.6% (-)	54.2% (-)	56.4% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	uS/cm	21,200	17,000	12,600	11,600	5,410	4,540	1,680	1,580	27,000	23,400	1,400	1,290	4,320	7,010	1,790	1,580	17,600	18,000
		Maximum	uS/cm	24,300	22,800	14,100	14,800	5,890	6,060	2,110	1,920	29,700	33,400	1,750	1,630	12,700	13,200	2,100	1,970	23,800	24,800
		Average	uS/cm	22,478	20,177	13,373	13,438	5,621	5,483	1,837	1,759	28,627	28,535	1,570	1,445	10,096	10,536	1,903	1,807	21,442	21,850
	Total Dissolved Solids (Calculated)	Mann Kendall Trend		75.7% (+)	99.9% (sig -)	56.0% (-)	**99.6% (sig +)**	95.7% (sig -)	**98.5% (sig +)**	81.0% (+)	82.3% (-)	85.9% (+)	70.2% (-)	85.9% (-)	**98.8% (sig +)**	93.4% (+)	90.8% (-)	95.5% (sig -)	63.3% (-)	54.2% (-)	92.1% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	mg/L	12,700	9,350	6,380	6,810	2,850	2,670	1,000	975	14,500	12,400	741	748	2,250	3,830	1,060	1,040	10,200	9,230
		Maximum	mg/L	13,800	13,000	8,230	8,200	3,180	3,210	1,270	1,150	18,400	22,600	1,020	1,160	6,740	7,030	1,380	1,170	13,500	14,300
		Average	mg/L	13,122	11,471	7,585	7,437	2,983	2,955	1,146	1,058	16,909	16,915	896	888	5,415	5,748	1,253	1,121	12,448	12,138
	Sodium	Mann Kendall Trend		54.0% (-)	99.4% (sig -)	64.8% (+)	**99.3% (sig +)**	96.7% (sig -)	**98.7% (sig +)**	50.0% (+)	**99.9% (sig +)**	85.9% (+)	92.7% (-)	92.9% (-)	**100.0% (sig +)**	70.0% (+)	89.6% (-)	84.2% (-)	**99.0% (sig +)**	91.5% (-)	68.6% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	mg/L	4,100	3,120	2,530	2,190	979	918	361	372	4,960	4,560	293	280	745	1,430	359	372	3,460	3,310
		Maximum	mg/L	4,800	4,660	2,980	3,140	1,300	1,270	499	479	6,240	6,348	438	400	2,590	2,610	469	446	5,110	5,190
		Average	mg/L	4,449	3,821	2,735	2,539	1,111	1,077	437	429	5,714	5,564	354	338	1,941	2,016	404	409	4,224	4,155
	Chloride	Mann Kendall Trend		76.2% (+)	99.4% (sig -)	59.0% (+)	87.4% (+)	63.1% (+)	**96.6% (sig +)**	50.0% (-)	**99.9% (sig +)**	77.7% (+)	55.3% (+)	95.7% (sig -)	**99.5% (sig +)**	**97.0% (sig +)**	96.2% (sig -)	**98.8% (sig +)**	**95.8% (sig +)**	**98.0% (sig +)**	92.1% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	mg/L	7,520	5,550	3,400	4,090	1,510	1,520	49	50	8,940	6,890	68	41	1,320	2,170	8	13	6,390	5,460
		Maximum	mg/L	8,730	8,730	5,120	5,500	1,850	1,860	63	117	11,500	12,100	182	105	4,170	4,400	22	31	9,440	8,690
		Average	mg/L	8,039	7,160	4,582	4,648	1,628	1,675	56	70	10,438	10,385	127	76	3,276	3,518	17	20	7,796	7,574
	Arsenic	Mann Kendall Trend		99.9% (sig -)	76.7% (-)	99.2% (sig -)	94.1% (+)	99.0% (sig -)	53.5% (+)	92.4% (-)	92.4% (+)	99.6% (sig -)	93.9% (+)	99.9% (sig -)	93.3% (+)	95.5% (sig -)	87.9% (+)	89.3% (+)	89.9% (+)	97.8% (sig -)	79.0% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	mg/L	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0001	0.0010
		Maximum	mg/L	0.1080	0.0100	0.0620	0.0100	0.0210	0.0100	0.0100	0.0100	0.1200	0.0100	0.0040	0.0100	0.0470	0.0100	0.0020	0.0100	0.0850	0.0100
		Average	mg/L	0.0299	0.0026	0.0210	0.0022	0.0078	0.0029	0.0028	0.0020	0.0377	0.0020	0.0018	0.0020	0.0119	0.0022	0.0011	0.0028	0.0133	0.0028
	Dissolved Inorganic Carbon	Mann Kendall Trend		69.4% (+)	**100.0% (sig +)**	77.7% (+)	**100.0% (sig +)**	50.0% (-)	**100.0% (sig +)**	58.0% (-)	**99.4% (sig +)**	85.9% (-)	**99.0% (sig +)**	67.6% (-)	97.9% (sig -)	**99.2% (sig +)**	**99.3% (sig +)**	54.2% (+)	70.4% (+)	54.2% (+)	92.1% (+)
		Count		9	26	11	26	12	26	12	26	11	26	11	26	10	25	23	15	23	14
		Minimum	mg/L	2	3	21	7	21	49	141	43	1	1	65	116	18	34	130	154	6	2
		Maximum	mg/L	31	36	34	41	79	72	233	244	26	7	148	226	38	49	203	208	17	14
		Average	mg/L	22	26	31	33	56	63	205	201	8	3	124	139	30	39	182	185	11	8
	d13C-DIC	Mann Kendall Trend		64.0% (-)	52.6% (+)	50.0% (+)	**100.0% (sig -)**	85.9% (+)	93.9% (-)	87.5% (-)	95.1% (sig +)	97.8% (sig +)	(nc)	70.0% (+)	88.3% (+)	99.4% (sig +)	98.2% (sig +)	50.0% (+)	53.9% (-)	99.9% (sig +)	96.9% (sig +)
		Count		8	26	10	26	11	26	11	26	9	2	10	26	9	24	22	15	22	12
		Minimum	‰	-13.90	-11.31	-14.40	-6.30	-16.44	-8.08	-16.93	-15.02	-33.40	-16.48	-12.30	-17.33	-20.80	-7.75	-19.00	-17.65	-30.09	6.40
		Maximum	‰	13.80	7.00	5.90	-0.03	2.70	-0.81	0.40	-13.00	0.90	0.00	0.20	6.42	-0.80	7.90	-13.86	-15.60	13.10	13.80
		Average	‰	4.28	-3.41	-0.67	-3.16	-2.35	-5.70	-12.70	-14.15	-14.21	-8.24	-2.79	-0.86	-5.66	2.31	-16.17	-16.67	6.01	11.22
Free Gas	Carbon Dioxide	Mann Kendall Trend		78.2% (-)	(nc)	**96.9% (sig +)**	nd	98.0% (sig -)	nd	87.5% (+)	nd	57.9% (-)	92.5% (+)	93.2% (+)	(nc)	90.2% (+)	**100.0% (sig +)**	73.8% (-)	nd	80.0% (+)	50.0% (+)
		Count		13	1	12		11		11		12	18	7	1	12	20	5		24	7
		Minimum	%	0.034	0.12	0.05		0.02		0.04		0.00	0.00	0.00	0.05	0.00	0.04	0.02		0.01	0.01
		Maximum	%	0.20	0.12	0.15		0.14		0.20		0.04	0.04	0.07	0.05	0.05	0.30	0.05		0.08	0.08
		Average	%	0.08	0.12	0.08		0.06		0.08		0.01	0.01	0.03	0.05	0.03	0.07	0.04		0.02	0.04
	d13CO2	Mann Kendall Trend		52.4% (-)	(nc)	85.9% (-)	nd	70.0% (+)	nd	91.0% (-)	nd	89.2% (+)	50.0% (-)	98.5% (sig +)	(nc)	80.1% (+)	50.0% (-)	50.0% (+)	nd	89.6% (+)	(nc)
		Count		13	2	11		10		9		10	10	7	1	8	11	6		19	3
		Minimum	‰	-28.96	-20.75	-29.95		-18.68		-23.13		-35.58	-56.33	-26.30	-24.67	-30.15	-50.24	-40.67		-41.14	-11.60
		Maximum	‰	-1.22	-12.07	-0.80		-9.61		-10.55		-11.90	-2.27	-10.68	-24.67	-9.63	-0.81	-13.10		-2.42	-9.50
		Average	‰	-12.31	-16.41	-11.86		-14.05		-15.87		-19.13	-25.67	-16.32	-24.67	-14.13	-17.80	-24.22		-16.37	-10.86

Notes
All available analytical data prior to October 27, 2022 at each location were used in the statistical calculation

For parameters with results less than the RDL, a value of half of the RDL was used in the trend analysis calculations.

% - percent

Legend

(sig -) - decreasing trend with greater than 95% significance
(-) - potential decreasing trend with less than 95% significance
(.) - indeterminant trend
(+) - potential increasing trend with less than 95% significance
(sig +) - increasing trend with greater than 95% significance
(nc) - not calculable (insufficient data available for trend calculation)
nd - no data
Potential Project Effect Trend

Appendix C Methods

C.1 Project Wells

C.1.1 Groundwater Levels

Depth to groundwater was measured using an oil/water interface probe with a 1 mm resolution.

C.1.2 Data Loggers

A dedicated AquaTroll®600 (AT600) has been installed in each Project Well to record daily pressure and basic water quality data (i.e., pH, temperature, conductivity, and oxidation-reduction potential).

Downloading of the data and on-site maintenance (i.e., calibration and sensor inspection, battery replacement, desiccant replacement, and O-ring checks) were performed quarterly by Stantec personnel. On occasions, some of the AT600s were returned to Rice Engineering & Operating Ltd (Rice) and In-Situ Inc. (In-Situ) for further checks and repairs.

C.1.3 Groundwater Purging

Prior to sampling, stagnant groundwater was purged from the wells using a portable bladder pump where issues did not occur. The bladder pump was placed at the approximate screen mid-point to allow for representative formation water. In deeper wells, a weighted drop intake screen was installed on the pump to allow the pump to be within specifications. Field parameters were recorded during purging using a Flow-Through (FT) cell and attached multiparameter meter. Purging continued until stabilization of field parameters had been achieved.

C.1.4 Groundwater and Gas Sampling

Upon field parameter stabilization, groundwater samples were collected from the project wells and were placed directly in laboratory-supplied bottles and field filtered and preserved, as appropriate. Where portable bladder pump issues occurred, a no-purge sample was collected using a hydrasleeve.

Gas samples were collected consecutively with groundwater samples using a FT gas separator. The FT gas separator operates by capturing free-phase gas bubbles that enter the separator or are released from solution within the separator. The detailed protocol adopted for flow-through sampling is described by Jones et al. (2009). For each Project well, the FT was connected to the outlet of the pump and left connected. The FT was allowed to collect gas for a minimum of 30 minutes in order to obtain sufficient volume for both compositional and isotopic analysis. For wells producing a sufficient quantity of gas for sampling, up to two new Tedlar® bags were filled and submitted for analysis.

The groundwater and gas samples were placed in an ice-filled cooler and submitted under chain-of-custody to the laboratory for analysis.

C.2 Chemical Analysis

Groundwater and Gas laboratory analysis was performed by AGAT Laboratories Ltd. (AGAT). Specialized isotope parameters were subcontracted to University of Calgary and University of Alberta through AGAT. AGAT is accredited according to the International Standards Association (ISO) Standard 17025 through the Standards Council of Canada (SCC) and by the Canadian Association for Laboratory Accreditation (CALA).

Groundwater samples were analyzed for concentrations of the following parameters:

- Routine chemistry consisting of pH, alkalinity, bicarbonate, carbonate, hydroxide, electrical conductivity (EC), dissolved parameters (calcium, iron, magnesium, manganese, potassium, sodium, chloride and fluoride), nitrate, nitrite, sulphate, sodium adsorption ratio (SAR), total dissolved solids, hardness, and ion balance.
- Dissolved inorganic carbon (DIC).
- Dissolved arsenic
- $\delta^{13}C$ DIC (University of Calgary)

Gas Samples were analyzed for concentrations of the following parameters:

- Gas Composition consisting of He, H_2, O_2, N_2, CO_2, H_2S, C_1, C_2, C_3, iC_4, nC_4, iC_5, nC_5, C_6, C_7, C_8, C_9 and C_{10}+.
- Carbon Isotopes consisting of $\delta^{13}C_{CH}4$, $\delta^{13}C_C2$, $\delta^{13}C_C3$, $\delta^{13}Ci_C4$, $\delta^{13}Cn_C4$, $\delta^{13}C_{Co}2$ (University of Alberta).

C.2.1 Quality Assurance/Quality Control (QA/QC)

The purpose of the quality assurance and quality control (QA/QC) program was to assess the reliability and reproducibility of the data for the purposes of the assessment. The review consisted of evaluating sample collection and handling methods, sample hold times, general laboratory comments, blind field duplicate results, and laboratory duplicate results. Samples collected were submitted to a laboratory accredited by the Standard Council of Canada (SCC). All groundwater and gas samples were collected following Stantec sampling procedures. Samples were uniquely labeled, and control was maintained through use of chain of custody forms. Samples were collected in laboratory supplied containers and stored over ice in insulated coolers. Appropriate sampling QA/QC procedures were adhered to at all times.

C.2.2 Laboratory QA/QC

The QA/QC methods employed by AGAT, including matrix spikes, method blanks, replicates, reference criteria, and surrogate recoveries, were reviewed to assess the reliability of the samples. A detailed description of laboratory QA/QC procedures is provided in the laboratory certificate of analysis (COA).

C.2.3 Field QA/QC

Groundwater field duplicate samples were collected at selected monitoring well locations by filling concurrently two sets of sample containers and submitting one set of samples as a blind duplicate for laboratory analysis. Relative percent difference (RPD) values we calculated for the duplicate samples to assess the reliability of the analytical data provided for the assessment by verifying the reproducibility of the sample collection methodology and laboratory analytical procedures. The RPD for each of the duplicate samples was calculated using the following equation:

$$RPD = \left[\frac{|S1 - S2|}{S3}\right] \times 100$$

where:

RPD = relative percent difference
S1 = original soil sample concentration
S2 = duplicate soil sample concentration
S3 = average concentration (S1 + S2)/2

RPD values were evaluated on a per parameter basis, using two times the laboratory duplicate RPD criteria, as detailed in Table C.1, below (CCME 2016).

Table C.1 Acceptable Variability in Field Duplicates

Parameter	Laboratory Duplicate RPD Acceptable Variability	Field RPD Acceptable Variability
Metals and Inorganics	20%	40%
Electrical Conductivity	10%	20%

RPD values were not used to evaluate those compounds that are present at concentrations less than five times the reportable detection limit (RDL).

C.3 References

Canadian Council of Ministers of the Environment (CCME). 2016. Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment, Volume 1 Guidance Manual. PN 1551.

Jones, D., Gordon, S., Mayer, B., Hiltz, M., Blyth., A. 2009. *The Free Gas Sampling Standard Operating Procedure for Baseline Water Well Testing.* Prepared for Alberta Environment and Sustainable Resource Development.

Appendix D Continuous Measurement Summary Tables



Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	497	497	497	497	608	540	391	264	608
[Pre-Injection] Min	93.17	573.32	20.72	599.69	6.34	7.41	20,470.07	13,260.43	-0.70
[Pre-Injection] Max	105.88	775.41	41.40	620.37	7.26	8.78	23,489.80	15,239.53	0.46
[Pre-Injection] Mean	96.27	746.91	23.33	617.76	6.55	8.24	21,953.59	14,151.19	-0.35
[Pre-Injection] Median	95.35	760.02	21.94	619.15	6.58	8.47	22,209.69	13,906.83	-0.41
[Pre-Injection] Standard Deviation	2.56	35.11	3.66	3.66	0.08	0.44	823.24	582.45	0.21
[2023] Count	596	596	596	596	605	605	605	605	605
[2023] Min	92.47	745.83	19.60	619.42	6.47	7.41	18,417.80	11,926.09	-0.46
[2023] Max	96.82	781.30	21.67	621.49	6.57	7.53	19,733.14	12,761.98	-0.16
[2023] Mean	94.78	767.26	20.01	621.08	6.52	7.47	19,207.11	12,427.54	-0.42
[2023] Median	94.79	764.67	19.86	621.23	6.52	7.47	19,294.04	12,475.78	-0.42
[2023] Standard Deviation	0.73	7.94	0.39	0.39	0.02	0.03	516.19	326.97	0.04
1/1/2023 8:17:00 AM	94.40	765.92	19.67	621.42	6.50	7.41	19,733.14	12,761.98	-0.41
1/1/2023 8:17:00 PM	94.49	766.06	19.66	621.43	6.50	7.42	19,732.57	12,759.46	-0.41
1/2/2023 8:17:00 AM	94.27	765.98	19.67	621.42	6.50	7.41	19,730.48	12,758.83	-0.41
1/2/2023 8:17:00 PM	93.98	766.04	19.66	621.43	6.50	7.42	19,725.89	12,754.43	-0.41
1/3/2023 8:17:00 AM	93.71	766.04	19.66	621.43	6.50	7.42	19,725.73	12,753.62	-0.41
1/3/2023 8:17:00 PM	93.96	766.30	19.63	621.46	6.50	7.41	19,726.23	12,755.20	-0.41
1/4/2023 8:17:00 AM	94.53	766.23	19.64	621.45	6.50	7.42	19,728.36	12,756.82	-0.41
1/4/2023 8:17:00 PM	94.90	766.09	19.66	621.43	6.50	7.42	19,727.11	12,755.77	-0.41
1/5/2023 8:17:00 AM	94.79	765.77	19.69	621.40	6.50	7.42	19,730.45	12,757.87	-0.41
1/5/2023 8:17:00 PM	94.33	766.21	19.64	621.45	6.49	7.42	19,726.97	12,754.08	-0.41
1/6/2023 8:17:00 AM	94.15	766.23	19.64	621.45	6.50	7.42	19,725.82	12,754.07	-0.41
1/6/2023 8:17:00 PM	94.47	766.06	19.66	621.43	6.50	7.42	19,726.17	12,754.36	-0.41
1/7/2023 8:17:00 AM	94.53	766.28	19.64	621.45	6.50	7.42	19,726.38	12,756.30	-0.41
1/7/2023 8:17:00 PM	94.59	766.02	19.66	621.43	6.50	7.42	19,721.00	12,752.72	-0.42
1/8/2023 8:17:00 AM	94.09	766.03	19.66	621.43	6.50	7.42	19,727.67	12,757.51	-0.42
1/8/2023 8:17:00 PM	93.91	765.90	19.68	621.41	6.50	7.42	19,727.44	12,755.06	-0.42
1/9/2023 8:17:00 AM	93.98	765.98	19.67	621.42	6.50	7.42	19,725.91	12,754.86	-0.42
1/9/2023 8:17:00 PM	93.85	766.13	19.65	621.44	6.50	7.42	19,724.50	12,753.40	-0.42
1/10/2023 8:17:00 AM	94.08	765.98	19.67	621.42	6.50	7.42	19,715.12	12,747.74	-0.42
1/10/2023 8:17:00 PM	94.48	766.00	19.67	621.42	6.50	7.42	19,713.96	12,748.38	-0.42
1/11/2023 8:17:00 AM	94.98	765.93	19.67	621.42	6.50	7.42	19,708.55	12,745.68	-0.42
1/11/2023 8:17:00 PM	95.31	766.21	19.64	621.45	6.50	7.42	19,713.54	12,747.58	-0.42
1/12/2023 8:17:00 AM	95.12	766.22	19.64	621.45	6.50	7.42	19,712.34	12,747.72	-0.42
1/12/2023 8:17:00 PM	94.73	766.18	19.65	621.44	6.50	7.42	19,703.92	12,740.99	-0.42
1/13/2023 8:17:00 AM	94.38	766.06	19.66	621.43	6.50	7.42	19,718.37	12,750.76	-0.42
1/13/2023 8:17:00 PM	93.89	765.99	19.67	621.42	6.50	7.42	19,708.98	12,744.61	-0.42
1/14/2023 8:17:00 AM	93.56	765.83	19.68	621.41	6.50	7.42	19,711.42	12,746.72	-0.42
1/14/2023 8:17:00 PM	93.54	765.92	19.67	621.42	6.50	7.42	19,701.84	12,739.25	-0.42
1/15/2023 8:17:00 AM	93.58	765.94	19.67	621.42	6.50	7.43	19,711.80	12,746.06	-0.42
1/15/2023 8:17:00 PM	93.70	766.29	19.64	621.45	6.49	7.43	19,712.51	12,744.37	-0.42
1/16/2023 8:17:00 AM	93.84	766.10	19.66	621.43	6.50	7.43	19,713.76	12,746.21	-0.42
1/16/2023 8:17:00 PM	94.00	766.01	19.66	621.43	6.49	7.43	19,707.65	12,741.09	-0.42
1/17/2023 8:17:00 AM	94.15	766.07	19.66	621.43	6.50	7.43	19,713.79	12,748.01	-0.42
1/17/2023 8:17:00 PM	94.22	765.89	19.68	621.41	6.50	7.42	19,710.89	12,744.94	-0.42
1/18/2023 8:17:00 AM	94.13	766.20	19.64	621.45	6.50	7.42	19,708.52	12,744.18	-0.42
1/18/2023 8:17:00 PM	94.09	766.08	19.66	621.43	6.50	7.43	19,716.73	12,749.39	-0.42
1/19/2023 8:17:00 AM	94.69	766.13	19.65	621.44	6.50	7.43	19,715.67	12,748.85	-0.42
1/19/2023 8:17:00 PM	95.04	766.06	19.66	621.43	6.50	7.42	19,709.28	12,745.69	-0.42
1/20/2023 8:17:00 AM	94.96	766.24	19.64	621.45	6.50	7.43	19,711.83	12,745.91	-0.42
1/20/2023 8:17:00 PM	95.00	765.94	19.67	621.42	6.50	7.43	19,705.66	12,742.73	-0.42
1/21/2023 8:17:00 AM	94.66	765.71	19.69	621.40	6.50	7.43	19,710.43	12,744.67	-0.42
1/21/2023 8:17:00 PM	93.95	765.98	19.67	621.42	6.49	7.43	19,707.37	12,741.42	-0.42
1/22/2023 8:17:00 AM	94.53	766.01	19.66	621.43	6.50	7.43	19,712.48	12,745.61	-0.42
1/22/2023 8:17:00 PM	95.22	765.99	19.67	621.42	6.49	7.43	19,704.47	12,738.82	-0.42
1/23/2023 8:17:00 AM	94.44	766.07	19.66	621.43	6.50	7.43	19,708.64	12,743.88	-0.42
1/23/2023 8:17:00 PM	94.42	766.12	19.65	621.44	6.50	7.42	19,710.81	12,746.49	-0.42
1/24/2023 8:17:00 AM	94.70	766.12	19.65	621.44	6.50	7.43	19,709.91	12,744.31	-0.42
1/24/2023 8:17:00 PM	95.31	766.15	19.65	621.44	6.50	7.43	19,708.85	12,744.49	-0.42
1/25/2023 8:17:00 AM	95.59	766.34	19.63	621.46	6.50	7.43	19,713.89	12,748.07	-0.42
1/25/2023 8:17:00 PM	95.00	766.36	19.63	621.46	6.50	7.43	19,710.52	12,744.66	-0.42
1/26/2023 8:17:00 AM	94.24	766.33	19.63	621.46	6.50	7.43	19,707.60	12,744.76	-0.42
1/26/2023 8:17:00 PM	94.49	765.87	19.68	621.41	6.50	7.44	19,710.73	12,746.16	-0.42
1/27/2023 8:17:00 AM	95.16	766.44	19.62	621.47	6.50	7.43	19,708.50	12,743.12	-0.42
1/27/2023 8:17:00 PM	96.08	766.19	19.65	621.44	6.49	7.43	19,706.52	12,741.03	-0.42
1/28/2023 8:17:00 AM	96.60	766.01	19.66	621.43	6.50	7.44	19,714.57	12,747.61	-0.42
1/28/2023 8:17:00 PM	96.41	766.17	19.65	621.44	6.50	7.43	19,709.36	12,746.37	-0.42
1/29/2023 8:17:00 AM	96.43	766.02	19.66	621.43	6.50	7.44	19,706.86	12,742.31	-0.42

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 8:17:00 PM	95.20	766.18	19.65	621.44	6.50	7.44	19,709.28	12,745.41	-0.42
1/30/2023 8:17:00 AM	95.44	765.86	19.68	621.41	6.50	7.43	19,711.92	12,747.44	-0.42
1/30/2023 8:17:00 PM	94.67	765.92	19.67	621.42	6.49	7.44	19,714.36	12,746.00	-0.42
1/31/2023 8:17:00 AM	94.68	766.22	19.64	621.45	6.50	7.44	19,711.76	12,746.71	-0.42
1/31/2023 8:17:00 PM	94.60	766.23	19.64	621.45	6.50	7.44	19,712.99	12,747.30	-0.42
2/1/2023 8:17:00 AM	95.11	766.20	19.65	621.44	6.50	7.44	19,709.65	12,744.07	-0.42
2/1/2023 8:17:00 PM	96.11	766.25	19.64	621.45	6.50	7.44	19,714.24	12,748.19	-0.42
2/2/2023 8:17:00 AM	95.72	766.23	19.64	621.45	6.50	7.44	19,710.53	12,745.63	-0.42
2/2/2023 8:17:00 PM	94.74	766.08	19.66	621.43	6.50	7.44	19,703.55	12,739.73	-0.42
2/3/2023 8:17:00 AM	93.87	766.04	19.66	621.43	6.50	7.44	19,710.92	12,744.96	-0.42
2/3/2023 8:17:00 PM	93.69	766.44	19.62	621.47	6.50	7.44	19,715.44	12,749.26	-0.42
2/4/2023 8:17:00 AM	93.82	766.39	19.63	621.46	6.50	7.44	19,708.72	12,744.99	-0.42
2/4/2023 8:17:00 PM	94.04	766.36	19.63	621.46	6.50	7.44	19,712.84	12,747.16	-0.42
2/5/2023 8:17:00 AM	93.36	766.32	19.63	621.46	6.50	7.44	19,710.88	12,745.68	-0.42
2/5/2023 8:17:00 PM	93.11	766.05	19.66	621.43	6.50	7.44	19,714.53	12,747.63	-0.42
2/6/2023 8:18:00 AM	94.06	766.26	19.64	621.45	6.50	7.44	19,708.69	12,744.00	-0.42
2/6/2023 8:18:00 PM	93.53	766.55	19.61	621.48	6.49	7.44	19,711.11	12,743.47	-0.42
2/7/2023 8:18:00 AM	94.05	766.41	19.62	621.47	6.50	7.44	19,708.46	12,743.82	-0.42
2/7/2023 8:18:00 PM	94.14	766.34	19.63	621.46	6.49	7.45	19,715.96	12,746.45	-0.42
2/8/2023 8:18:00 AM	95.09	766.32	19.63	621.46	6.50	7.44	19,711.11	12,745.28	-0.43
2/8/2023 8:18:00 PM	95.53	766.25	19.64	621.45	6.50	7.44	19,707.83	12,743.74	-0.43
2/9/2023 8:18:00 AM	95.41	766.68	19.60	621.49	6.50	7.44	19,715.81	12,750.81	-0.43
2/9/2023 8:18:00 PM	94.69	766.28	19.64	621.45	6.50	7.45	19,712.95	12,747.69	-0.43
2/10/2023 8:18:00 AM	93.84	766.36	19.63	621.46	6.50	7.45	19,715.42	12,748.27	-0.43
2/10/2023 8:18:00 PM	94.15	766.29	19.64	621.45	6.50	7.44	19,707.60	12,742.53	-0.43
2/11/2023 8:18:00 AM	94.42	766.37	19.63	621.46	6.49	7.45	19,711.82	12,743.64	-0.43
2/11/2023 8:18:00 PM	94.24	766.38	19.63	621.46	6.50	7.45	19,712.47	12,745.49	-0.43
2/12/2023 8:18:00 AM	94.15	766.46	19.62	621.47	6.50	7.45	19,710.17	12,744.46	-0.43
2/12/2023 8:18:00 PM	92.96	766.53	19.61	621.48	6.50	7.44	19,706.90	12,743.48	-0.43
2/13/2023 8:18:00 AM	92.49	766.53	19.61	621.48	6.50	7.45	19,709.19	12,744.16	-0.43
2/13/2023 8:18:00 PM	93.57	766.47	19.62	621.47	6.50	7.45	19,705.21	12,740.93	-0.42
2/14/2023 8:18:00 AM	94.83	766.39	19.63	621.46	6.50	7.45	19,709.47	12,743.25	-0.43
2/14/2023 8:18:00 PM	95.09	766.40	19.62	621.47	6.50	7.45	19,708.62	12,744.67	-0.43
2/15/2023 8:18:00 AM	95.10	766.25	19.64	621.45	6.50	7.45	19,718.99	12,750.57	-0.43
2/15/2023 8:18:00 PM	95.11	745.83	21.67	619.42	6.53	7.44	19,665.56	12,727.56	-0.16
2/16/2023 8:18:00 AM	94.30	746.69	21.59	619.50	6.53	7.44	19,684.97	12,739.31	-0.22
2/16/2023 8:18:00 PM	93.98	747.49	21.51	619.58	6.53	7.45	19,670.73	12,730.57	-0.28
2/17/2023 8:18:00 AM	94.49	747.70	21.48	619.61	6.53	7.45	19,653.94	12,719.75	-0.30
2/17/2023 8:18:00 PM	94.12	748.24	21.43	619.66	6.53	7.45	19,646.62	12,714.13	-0.32
2/18/2023 8:18:00 AM	94.06	748.98	21.36	619.73	6.52	7.45	19,648.06	12,714.42	-0.33
2/18/2023 8:18:00 PM	94.69	749.65	21.29	619.80	6.52	7.46	19,658.17	12,721.13	-0.33
2/19/2023 8:18:00 AM	93.51	750.14	21.24	619.85	6.52	7.45	19,655.20	12,718.74	-0.33
2/19/2023 8:18:00 PM	93.95	750.57	21.20	619.89	6.52	7.45	19,641.49	12,710.31	-0.34
2/20/2023 8:18:00 AM	94.88	750.98	21.15	619.94	6.52	7.46	19,644.86	12,711.96	-0.34
2/20/2023 8:18:00 PM	94.20	751.60	21.09	620.00	6.52	7.45	19,640.72	12,709.77	-0.34
2/21/2023 8:18:00 AM	95.06	752.02	21.05	620.04	6.52	7.46	19,652.00	12,717.09	-0.34
2/21/2023 8:18:00 PM	95.74	752.63	20.99	620.10	6.52	7.46	19,636.42	12,705.88	-0.35
2/22/2023 8:18:00 AM	96.31	752.70	20.98	620.11	6.52	7.46	19,640.70	12,708.42	-0.35
2/22/2023 8:18:00 PM	96.45	752.92	20.96	620.13	6.53	7.46	19,642.44	12,711.26	-0.35
2/23/2023 8:18:00 AM	96.79	753.37	20.91	620.18	6.52	7.46	19,645.56	12,712.16	-0.35
2/23/2023 8:18:00 PM	96.57	753.96	20.85	620.24	6.52	7.47	19,631.35	12,701.88	-0.36
2/24/2023 8:18:00 AM	95.53	754.40	20.81	620.28	6.52	7.46	19,642.55	12,709.52	-0.36
2/24/2023 8:18:00 PM	94.18	754.76	20.77	620.32	6.52	7.47	19,634.83	12,705.11	-0.36
2/25/2023 8:18:00 AM	94.04	754.98	20.75	620.34	6.52	7.47	19,642.85	12,708.55	-0.36
2/25/2023 8:18:00 PM	93.31	755.30	20.72	620.37	6.52	7.47	19,637.14	12,705.67	-0.36
2/26/2023 8:18:00 AM	92.57	755.81	20.67	620.42	6.52	7.47	19,643.94	12,709.80	-0.37
2/26/2023 8:18:00 PM	92.76	756.01	20.65	620.44	6.52	7.47	19,645.17	12,710.51	-0.37
2/27/2023 8:18:00 AM	93.47	756.23	20.62	620.47	6.52	7.47	19,641.72	12,707.80	-0.37
2/27/2023 8:18:00 PM	93.73	756.27	20.62	620.47	6.52	7.47	19,650.13	12,714.63	-0.37
2/28/2023 8:18:00 AM	94.11	757.07	20.54	620.55	6.52	7.47	19,646.72	12,711.17	-0.37
2/28/2023 8:18:00 PM	94.60	757.17	20.53	620.56	6.52	7.47	19,644.88	12,711.33	-0.38
3/1/2023 8:18:00 AM	94.15	757.48	20.50	620.59	6.52	7.47	19,649.04	12,712.77	-0.38
3/1/2023 8:18:00 PM	93.32	757.61	20.48	620.61	6.52	7.47	19,644.50	12,710.98	-0.38
3/2/2023 8:18:00 AM	92.47	757.84	20.46	620.63	6.52	7.47	19,653.91	12,715.29	-0.38
3/2/2023 8:18:00 PM	92.78	758.24	20.42	620.67	6.52	7.47	19,658.33	12,719.54	-0.38
3/3/2023 8:18:00 AM	93.29	758.56	20.39	620.70	6.52	7.47	19,654.78	12,715.44	-0.38
3/3/2023 8:18:00 PM	93.64	758.77	20.37	620.72	6.52	7.48	19,651.12	12,713.36	-0.38
3/4/2023 8:18:00 AM	94.50	759.02	20.34	620.75	6.52	7.47	19,651.33	12,713.78	-0.38
3/4/2023 8:18:00 PM	95.12	758.87	20.36	620.73	6.52	7.47	19,651.01	12,714.34	-0.38
3/5/2023 8:18:00 AM	95.98	759.32	20.31	620.78	6.52	7.47	19,657.76	12,718.01	-0.39

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/5/2023 8:18:00 PM	96.19	759.30	20.31	620.78	6.52	7.48	19,657.73	12,717.82	-0.39
3/6/2023 8:18:00 AM	96.29	759.80	20.26	620.83	6.52	7.48	19,651.33	12,714.88	-0.39
3/6/2023 8:18:00 PM	96.22	759.80	20.26	620.83	6.52	7.48	19,655.09	12,716.29	-0.39
3/7/2023 8:18:00 AM	96.09	759.75	20.27	620.82	6.52	7.48	19,652.37	12,713.90	-0.39
3/7/2023 8:18:00 PM	96.35	760.39	20.20	620.89	6.52	7.48	19,652.58	12,714.50	-0.39
3/8/2023 8:18:00 AM	96.72	760.15	20.23	620.86	6.52	7.48	19,655.34	12,716.06	-0.39
3/8/2023 8:18:00 PM	96.82	760.18	20.22	620.87	6.52	7.48	19,655.63	12,716.87	-0.39
3/9/2023 8:18:00 AM	96.33	760.50	20.19	620.90	6.52	7.48	19,653.70	12,715.88	-0.39
3/9/2023 8:18:00 PM	95.49	760.34	20.21	620.88	6.51	7.48	19,657.52	12,716.93	-0.39
3/10/2023 8:18:00 AM	94.85	761.02	20.14	620.95	6.52	7.48	19,658.15	12,718.23	-0.39
3/10/2023 8:18:00 PM	94.94	760.67	20.17	620.92	6.51	7.48	19,659.68	12,717.77	-0.39
3/11/2023 8:18:00 AM	95.48	761.31	20.11	620.98	6.51	7.48	19,664.53	12,720.97	-0.39
3/11/2023 8:18:00 PM	95.73	761.09	20.13	620.96	6.52	7.48	19,647.16	12,711.92	-0.40
3/12/2023 9:18:00 AM	95.65	761.29	20.11	620.98	6.52	7.48	19,666.49	12,724.37	-0.40
3/12/2023 9:18:00 PM	95.18	761.04	20.14	620.95	6.51	7.48	19,662.89	12,720.11	-0.40
3/13/2023 9:18:00 AM	94.40	761.57	20.08	621.01	6.51	7.48	19,665.54	12,721.68	-0.40
3/13/2023 9:18:00 PM	93.51	761.55	20.09	621.00	6.52	7.48	19,671.53	12,726.50	-0.40
3/14/2023 9:18:00 AM	93.70	761.57	20.08	621.01	6.51	7.48	19,663.46	12,720.46	-0.40
3/14/2023 9:18:00 PM	94.00	761.81	20.06	621.03	6.52	7.49	19,667.70	12,724.96	-0.40
3/15/2023 9:18:00 AM	94.51	762.07	20.03	621.06	6.52	7.48	19,670.43	12,726.31	-0.40
3/15/2023 9:18:00 PM	95.14	761.98	20.04	621.05	6.52	7.49	19,667.64	12,725.52	-0.40
3/16/2023 9:18:00 AM	95.69	762.27	20.01	621.08	6.51	7.49	19,668.01	12,722.85	-0.40
3/16/2023 9:18:00 PM	95.89	762.30	20.01	621.08	6.52	7.49	19,665.83	12,724.12	-0.40
3/17/2023 9:18:00 AM	95.80	762.27	20.01	621.08	6.52	7.49	19,671.81	12,728.12	-0.40
3/17/2023 9:18:00 PM	95.44	762.36	20.00	621.09	6.52	7.49	19,663.62	12,721.67	-0.40
3/18/2023 9:18:00 AM	95.25	762.35	20.01	621.08	6.52	7.49	19,673.40	12,727.62	-0.40
3/18/2023 9:18:00 PM	95.00	762.43	20.00	621.09	6.52	7.49	19,668.93	12,724.53	-0.40
3/19/2023 9:18:00 AM	94.93	762.90	19.95	621.14	6.52	7.49	19,670.15	12,727.27	-0.40
3/19/2023 9:18:00 PM	94.69	762.70	19.97	621.12	6.52	7.49	19,669.48	12,725.17	-0.40
3/20/2023 9:18:00 AM	94.59	762.64	19.98	621.11	6.52	7.49	19,675.76	12,730.39	-0.40
3/20/2023 9:18:00 PM	94.47	762.78	19.96	621.13	6.51	7.49	19,675.48	12,727.12	-0.40
3/21/2023 9:18:00 AM	94.81	762.55	19.98	621.11	6.52	7.49	19,675.39	12,729.15	-0.40
3/21/2023 9:18:00 PM	94.64	763.02	19.94	621.15	6.52	7.49	19,672.45	12,728.35	-0.40
3/22/2023 9:18:00 AM	94.19	763.02	19.94	621.15	6.52	7.49	19,669.31	12,724.74	-0.41
3/22/2023 9:18:00 PM	93.98	763.44	19.90	621.19	6.51	7.49	19,675.64	12,728.38	-0.41
3/23/2023 9:18:00 AM	93.95	763.16	19.92	621.17	6.52	7.49	19,675.81	12,729.73	-0.41
3/23/2023 9:18:00 PM	94.09	763.23	19.92	621.17	6.52	7.49	19,680.97	12,732.49	-0.41
3/24/2023 9:18:00 AM	94.80	763.11	19.93	621.16	6.52	7.49	19,677.47	12,731.07	-0.41
3/24/2023 9:18:00 PM	94.89	763.50	19.89	621.20	6.52	7.50	19,675.18	12,729.12	-0.41
3/25/2023 9:18:00 AM	94.84	763.53	19.89	621.20	6.52	7.49	19,677.42	12,732.03	-0.41
3/25/2023 9:18:00 PM	95.03	763.50	19.89	621.20	6.52	7.49	19,679.74	12,733.39	-0.41
3/26/2023 9:18:00 AM	95.52	763.50	19.89	621.20	6.52	7.50	19,681.44	12,732.56	-0.41
3/26/2023 9:18:00 PM	96.01	763.45	19.89	621.20	6.52	7.49	19,680.10	12,732.83	-0.41
3/27/2023 9:18:00 AM	96.31	763.49	19.89	621.20	6.52	7.50	19,678.25	12,732.21	-0.41
3/27/2023 9:18:00 PM	95.91	763.62	19.88	621.21	6.51	7.50	19,681.87	12,732.48	-0.41
3/28/2023 9:18:00 AM	95.58	763.57	19.88	621.21	6.52	7.50	19,686.87	12,738.22	-0.41
3/28/2023 9:18:00 PM	95.15	763.75	19.86	621.23	6.52	7.50	19,683.95	12,735.14	-0.41
3/29/2023 9:18:00 AM	94.68	764.06	19.83	621.26	6.52	7.50	19,685.87	12,736.24	-0.41
3/29/2023 9:18:00 PM	94.68	763.67	19.87	621.22	6.52	7.50	19,685.75	12,737.75	-0.41
3/30/2023 9:18:00 AM	94.59	764.07	19.83	621.26	6.52	7.50	19,676.15	12,730.73	-0.41
3/30/2023 9:19:00 PM	94.17	763.99	19.84	621.25	6.52	7.50	19,679.98	12,731.82	-0.41
3/31/2023 9:19:00 AM	93.86	764.19	19.82	621.27	6.52	7.50	19,683.45	12,734.22	-0.41
3/31/2023 9:19:00 PM	93.75	763.83	19.86	621.23	6.52	7.50	19,686.94	12,736.43	-0.41
4/1/2023 9:19:00 AM	93.47	763.94	19.84	621.25	6.52	7.50	19,686.02	12,736.65	-0.41
4/1/2023 9:19:00 PM	93.44	764.04	19.83	621.26	6.52	7.50	19,681.33	12,732.39	-0.41
4/2/2023 9:19:00 AM	93.89	763.91	19.85	621.24	6.52	7.50	19,683.50	12,734.67	-0.41
4/2/2023 9:19:00 PM	94.35	763.78	19.86	621.23	6.52	7.50	19,687.03	12,737.36	-0.41
4/3/2023 9:19:00 AM	94.68	764.01	19.84	621.25	6.52	7.50	19,684.91	12,736.29	-0.41
4/3/2023 9:19:00 PM	94.86	764.08	19.83	621.26	6.52	7.50	19,684.67	12,735.55	-0.41
4/4/2023 9:19:00 AM	95.13	764.09	19.83	621.26	6.52	7.50	19,685.41	12,737.38	-0.41
4/4/2023 9:19:00 PM	95.18	764.14	19.82	621.27	6.52	7.50	19,684.40	12,736.71	-0.41
4/5/2023 9:19:00 AM	94.91	764.38	19.80	621.29	6.52	7.50	19,690.98	12,739.87	-0.41
4/5/2023 9:19:00 PM	94.73	764.33	19.81	621.28	6.52	7.50	19,686.57	12,736.45	-0.41
4/6/2023 9:19:00 AM	94.85	764.44	19.79	621.30	6.52	7.50	19,692.93	12,741.97	-0.41
4/6/2023 9:19:00 PM	94.69	764.21	19.82	621.27	6.52	7.51	19,690.23	12,739.44	-0.41
4/7/2023 9:19:00 AM	94.15	764.13	19.83	621.26	6.52	7.51	19,684.16	12,735.77	-0.41
4/7/2023 9:19:00 PM	93.68	764.66	19.77	621.32	6.51	7.51	19,691.60	12,739.00	-0.41
4/8/2023 9:19:00 AM	93.71	764.47	19.79	621.30	6.52	7.51	19,685.85	12,737.33	-0.41
4/8/2023 9:19:00 PM	93.74	764.70	19.77	621.32	6.52	7.51	19,691.92	12,739.93	-0.41
4/9/2023 9:19:00 AM	94.49	764.56	19.78	621.31	6.51	7.51	19,692.71	12,739.65	-0.41

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/9/2023 9:19:00 PM	93.49	764.45	19.79	621.30	6.52	7.51	19,684.64	12,734.65	-0.41
4/10/2023 9:19:00 AM	94.50	764.38	19.80	621.29	6.52	7.51	19,694.45	12,741.86	-0.41
4/10/2023 9:19:00 PM	94.35	764.78	19.76	621.33	6.52	7.51	19,683.94	12,736.11	-0.41
4/11/2023 9:19:00 AM	94.00	764.70	19.77	621.32	6.52	7.51	19,696.91	12,744.33	-0.41
4/11/2023 9:19:00 PM	94.09	764.30	19.81	621.28	6.52	7.51	19,695.43	12,742.89	-0.41
4/12/2023 9:19:00 AM	94.35	764.47	19.79	621.30	6.52	7.51	19,687.08	12,737.57	-0.41
4/12/2023 9:19:00 PM	94.33	764.45	19.79	621.30	6.52	7.51	19,694.71	12,742.67	-0.41
4/13/2023 9:19:00 AM	94.41	764.47	19.79	621.30	6.52	7.51	19,691.20	12,740.62	-0.41
4/13/2023 9:19:00 PM	94.40	764.50	19.79	621.30	6.52	7.51	19,690.25	12,739.16	-0.41
4/14/2023 9:19:00 AM	94.62	764.47	19.79	621.30	6.52	7.51	19,690.17	12,740.09	-0.41
4/14/2023 9:19:00 PM	94.94	764.56	19.78	621.31	6.52	7.51	19,691.86	12,740.00	-0.41
4/15/2023 9:19:00 AM	95.17	764.62	19.78	621.31	6.52	7.51	19,690.33	12,739.64	-0.41
4/15/2023 9:19:00 PM	94.93	764.63	19.78	621.31	6.52	7.51	19,686.11	12,736.89	-0.41
4/16/2023 9:19:00 AM	94.64	764.58	19.78	621.31	6.52	7.51	19,691.67	12,740.88	-0.41
4/16/2023 9:19:00 PM	93.86	764.58	19.78	621.31	6.52	7.51	19,685.65	12,737.48	-0.41
4/17/2023 9:19:00 AM	93.24	764.68	19.77	621.32	6.52	7.51	19,683.71	12,735.05	-0.41
4/17/2023 9:19:00 PM	93.49	764.80	19.76	621.33	6.52	7.52	19,686.03	12,736.68	-0.42
4/18/2023 9:19:00 AM	94.03	765.14	19.72	621.37	6.52	7.51	19,680.96	12,734.79	-0.42
4/18/2023 9:19:00 PM	94.37	764.88	19.75	621.34	6.52	7.52	19,684.19	12,737.01	-0.42
4/19/2023 9:19:00 AM	95.09	764.61	19.78	621.31	6.52	7.51	19,680.96	12,735.41	-0.42
4/19/2023 9:19:00 PM	95.72	764.72	19.77	621.32	6.52	7.52	19,680.91	12,733.69	-0.42
4/20/2023 9:19:00 AM	96.22	765.08	19.73	621.36	6.52	7.52	19,686.56	12,736.86	-0.42
4/20/2023 9:19:00 PM	96.05	764.87	19.75	621.34	6.52	7.52	19,686.03	12,737.12	-0.42
4/21/2023 9:19:00 AM	96.31	764.61	19.78	621.31	6.52	7.52	19,684.95	12,736.59	-0.42
4/21/2023 9:19:00 PM	96.20	764.65	19.77	621.32	6.52	7.52	19,683.97	12,734.95	-0.42
4/22/2023 9:19:00 AM	95.69	764.62	19.78	621.31	6.52	7.52	19,682.48	12,734.76	-0.42
4/22/2023 9:19:00 PM	95.01	764.70	19.77	621.32	6.52	7.52	19,678.02	12,732.07	-0.42
4/23/2023 9:19:00 AM	94.59	765.03	19.73	621.36	6.52	7.52	19,683.14	12,735.18	-0.42
4/23/2023 9:19:00 PM	94.19	764.69	19.77	621.32	6.52	7.52	19,671.44	12,727.84	-0.42
4/24/2023 9:19:00 AM	94.37	764.73	19.76	621.33	6.51	7.52	19,671.02	12,725.28	-0.42
4/24/2023 9:19:00 PM	94.70	764.94	19.74	621.35	6.52	7.52	19,665.49	12,722.70	-0.42
4/25/2023 9:19:00 AM	94.57	764.75	19.76	621.33	6.52	7.52	19,662.24	12,722.51	-0.42
4/25/2023 9:19:00 PM	94.73	764.99	19.74	621.35	6.52	7.52	19,662.26	12,721.53	-0.42
4/26/2023 9:19:00 AM	94.87	764.82	19.76	621.33	6.52	7.52	19,663.60	12,720.88	-0.42
4/26/2023 9:19:00 PM	94.15	764.94	19.74	621.35	6.52	7.52	19,657.69	12,718.53	-0.42
4/27/2023 9:19:00 AM	95.16	764.95	19.74	621.35	6.52	7.52	19,656.93	12,716.93	-0.42
4/27/2023 9:19:00 PM	95.03	764.77	19.76	621.33	6.52	7.52	19,651.20	12,714.70	-0.42
4/28/2023 9:19:00 AM	95.25	764.81	19.76	621.33	6.52	7.52	19,653.72	12,716.35	-0.42
4/28/2023 9:19:00 PM	95.34	764.93	19.75	621.34	6.52	7.52	19,650.65	12,713.90	-0.42
4/29/2023 9:19:00 AM	95.69	764.73	19.77	621.32	6.52	7.52	19,653.92	12,716.65	-0.42
4/29/2023 9:19:00 PM	95.20	764.64	19.77	621.32	6.52	7.52	19,652.36	12,714.19	-0.42
4/30/2023 9:19:00 AM	94.98	764.56	19.78	621.31	6.51	7.52	19,656.76	12,716.12	-0.42
4/30/2023 9:19:00 PM	94.54	764.56	19.78	621.31	6.52	7.52	19,653.41	12,714.43	-0.42
5/1/2023 9:19:00 AM	94.42	764.97	19.74	621.35	6.52	7.52	19,653.93	12,716.76	-0.42
5/1/2023 9:19:00 PM	94.16	764.98	19.74	621.35	6.52	7.52	19,658.59	12,719.04	-0.42
5/2/2023 9:19:00 AM	94.68	764.90	19.75	621.34	6.52	7.53	19,646.70	12,711.61	-0.42
5/2/2023 9:19:00 PM	94.62	764.65	19.77	621.32	6.52	7.53	19,652.84	12,715.86	-0.42
5/3/2023 9:19:00 AM	94.48	764.93	19.74	621.35	6.52	7.53	19,649.47	12,712.65	-0.42
5/3/2023 9:19:00 PM	94.00	764.69	19.77	621.32	6.52	7.53	19,650.14	12,714.16	-0.42
5/4/2023 9:19:00 AM	94.38	764.98	19.74	621.35	6.52	7.53	19,646.99	12,711.09	-0.42
5/4/2023 9:19:00 PM	94.38	764.81	19.76	621.33	6.52	7.53	19,651.13	12,714.30	-0.42
5/5/2023 9:19:00 AM	94.89	764.65	19.77	621.32	6.52	7.53	19,651.59	12,714.60	-0.42
5/5/2023 9:19:00 PM	94.98	764.83	19.75	621.34	6.52	7.53	19,654.35	12,716.31	-0.42
5/6/2023 9:19:00 AM	95.16	764.80	19.76	621.33	6.52	7.53	19,657.70	12,717.60	-0.42
5/6/2023 9:19:00 PM	94.98	764.71	19.77	621.32	6.52	7.53	19,651.03	12,715.10	-0.42
5/7/2023 9:19:00 AM	94.86	764.66	19.77	621.32	6.52	7.53	19,649.90	12,714.27	-0.42
5/7/2023 9:19:00 PM	94.68	764.59	19.78	621.31	6.52	7.53	19,649.74	12,715.18	-0.42
5/8/2023 9:19:00 AM	94.76	764.90	19.75	621.34	6.52	7.53	19,654.13	12,716.57	-0.42
5/8/2023 9:19:00 PM	94.73	764.72	19.77	621.32	6.52	7.53	19,650.02	12,714.74	-0.42
5/9/2023 9:19:00 AM	94.82	764.67	19.77	621.32	6.52	7.53	19,653.81	12,716.60	-0.42
5/10/2023 12:54:00 AM	94.97	764.32	21.50	619.59	6.52	7.50	18,433.66	11,926.67	-0.19
5/10/2023 12:54:00 PM	95.02	764.96	21.44	619.65	6.52	7.48	18,433.95	11,926.09	-0.20
5/11/2023 12:54:00 AM	95.18	765.69	21.37	619.72	6.57	7.46	18,422.18	11,937.59	-0.20
5/11/2023 12:54:00 PM	95.32	766.06	21.33	619.76	6.55	7.46	18,422.36	11,931.01	-0.23
5/12/2023 12:54:00 AM	95.59	766.72	21.26	619.83	6.55	7.46	18,418.44	11,927.81	-0.24
5/12/2023 12:54:00 PM	96.06	767.33	21.20	619.89	6.55	7.45	18,423.60	11,931.41	-0.26
5/13/2023 12:54:00 AM	96.20	767.52	21.18	619.91	6.56	7.45	18,425.86	11,934.48	-0.27
5/13/2023 12:54:00 PM	96.46	768.10	21.12	619.97	6.55	7.46	18,421.93	11,931.33	-0.28
5/14/2023 12:54:00 AM	96.41	768.63	21.07	620.02	6.55	7.45	18,417.80	11,928.33	-0.29
5/14/2023 12:54:00 PM	96.41	768.99	21.03	620.06	6.55	7.47	18,421.38	11,930.97	-0.29

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 12:54:00 AM	96.01	769.27	21.00	620.09	6.56	7.45	18,420.40	11,932.00	-0.30
5/15/2023 12:54:00 PM	95.40	769.90	20.94	620.15	6.55	7.47	18,421.36	11,930.15	-0.30
5/16/2023 12:54:00 AM	94.71	769.94	20.94	620.15	6.56	7.47	18,426.58	11,935.24	-0.31
5/16/2023 12:54:00 PM	95.41	770.31	20.90	620.19	6.55	7.46	18,423.90	11,932.93	-0.31
5/17/2023 12:54:00 AM	95.54	770.65	20.86	620.23	6.56	7.46	18,421.74	11,932.67	-0.32
5/17/2023 12:54:00 PM	95.36	771.04	20.82	620.27	6.56	7.46	18,419.88	11,932.86	-0.32
5/18/2023 12:54:00 AM	95.68	771.22	20.81	620.28	6.55	7.46	18,426.21	11,933.85	-0.33
5/18/2023 12:54:00 PM	95.67	771.59	20.77	620.32	6.56	7.46	18,424.85	11,934.10	-0.34
5/19/2023 12:55:00 AM	95.24	771.94	20.73	620.36	6.56	7.46	18,425.55	11,935.00	-0.35
5/19/2023 12:55:00 PM	94.79	772.21	20.71	620.38	6.56	7.47	18,433.23	11,940.57	-0.36
5/20/2023 12:55:00 AM	95.06	772.43	20.68	620.41	6.56	7.46	18,429.53	11,937.16	-0.36
5/20/2023 12:55:00 PM	95.37	772.89	20.64	620.45	6.56	7.45	18,436.86	11,943.16	-0.37
5/21/2023 12:55:00 AM	95.15	773.23	20.60	620.49	6.56	7.46	18,432.08	11,939.56	-0.37
5/21/2023 12:55:00 PM	94.82	773.42	20.58	620.51	6.56	7.46	18,438.99	11,943.99	-0.38
5/22/2023 12:55:00 AM	94.33	773.51	20.57	620.52	6.56	7.46	18,441.22	11,945.40	-0.38
5/22/2023 12:55:00 PM	94.05	773.95	20.53	620.56	6.55	7.46	18,442.96	11,944.89	-0.39
5/23/2023 12:55:00 AM	94.18	774.00	20.52	620.57	6.55	7.47	18,448.06	11,947.97	-0.39
5/23/2023 12:55:00 PM	94.47	774.23	20.50	620.59	6.56	7.47	18,448.07	11,948.75	-0.40
5/24/2023 12:55:00 AM	94.88	774.49	20.48	620.61	6.56	7.47	18,446.00	11,948.92	-0.40
5/24/2023 12:55:00 PM	94.85	774.63	20.46	620.63	6.55	7.46	18,446.59	11,947.38	-0.40
5/25/2023 12:55:00 AM	95.02	775.17	20.41	620.68	6.56	7.47	18,450.93	11,952.05	-0.41
5/25/2023 12:55:00 PM	95.26	775.36	20.39	620.70	6.55	7.47	18,450.06	11,949.80	-0.41
5/26/2023 12:55:00 AM	95.22	775.09	20.41	620.68	6.56	7.47	18,455.05	11,955.02	-0.41
5/26/2023 12:55:00 PM	95.09	775.54	20.37	620.72	6.56	7.47	18,454.13	11,953.81	-0.41
5/27/2023 12:55:00 AM	94.84	775.74	20.35	620.74	6.56	7.47	18,459.54	11,956.25	-0.41
5/27/2023 12:55:00 PM	94.60	775.96	20.33	620.76	6.56	7.47	18,458.49	11,956.03	-0.41
5/28/2023 12:55:00 AM	94.26	776.18	20.30	620.79	6.56	7.47	18,452.53	11,952.77	-0.42
5/28/2023 12:55:00 PM	94.11	776.31	20.29	620.80	6.56	7.47	18,455.68	11,953.93	-0.42
5/29/2023 12:55:00 AM	94.23	776.33	20.29	620.80	6.56	7.47	18,450.44	11,951.43	-0.42
5/29/2023 12:55:00 PM	94.04	776.51	20.27	620.82	6.55	7.47	18,446.62	11,945.93	-0.42
5/30/2023 12:55:00 AM	94.26	776.66	20.26	620.83	6.56	7.47	18,448.83	11,950.24	-0.42
5/30/2023 12:55:00 PM	94.18	776.91	20.23	620.86	6.55	7.47	18,450.40	11,949.89	-0.42
5/31/2023 12:55:00 AM	94.33	776.98	20.22	620.87	6.56	7.47	18,456.02	11,954.73	-0.42
5/31/2023 12:55:00 PM	94.47	777.32	20.19	620.90	6.55	7.47	18,446.95	11,947.37	-0.42
6/1/2023 12:55:00 AM	94.44	777.53	20.17	620.92	6.56	7.47	18,445.99	11,948.64	-0.42
6/1/2023 12:55:00 PM	95.02	777.08	20.21	620.88	6.56	7.47	18,448.97	11,949.41	-0.42
6/2/2023 12:55:00 AM	95.09	777.43	20.18	620.91	6.56	7.47	18,445.68	11,948.17	-0.42
6/2/2023 12:55:00 PM	95.32	777.47	20.17	620.92	6.56	7.47	18,446.93	11,948.89	-0.42
6/3/2023 12:55:00 AM	95.40	777.64	20.16	620.93	6.56	7.47	18,447.68	11,949.90	-0.43
6/3/2023 12:55:00 PM	95.44	777.71	20.15	620.94	6.55	7.47	18,454.61	11,952.82	-0.43
6/4/2023 12:55:00 AM	95.19	778.15	20.11	620.98	6.56	7.47	18,448.55	11,950.05	-0.43
6/4/2023 12:55:00 PM	94.90	778.09	20.11	620.98	6.56	7.47	18,446.99	11,949.09	-0.43
6/5/2023 12:55:00 AM	94.84	778.12	20.11	620.98	6.56	7.47	18,451.54	11,952.23	-0.43
6/5/2023 12:55:00 PM	94.80	778.32	20.09	621.00	6.56	7.48	18,452.58	11,951.91	-0.43
6/6/2023 12:55:00 AM	95.23	778.30	20.09	621.00	6.55	7.47	18,449.54	11,949.38	-0.44
6/6/2023 12:55:00 PM	95.18	778.47	20.07	621.02	6.56	7.47	18,449.59	11,950.06	-0.44
6/7/2023 12:55:00 AM	94.76	778.79	20.04	621.05	6.56	7.47	18,448.46	11,950.83	-0.44
6/7/2023 12:55:00 PM	94.72	778.61	20.06	621.03	6.56	7.47	18,450.52	11,950.86	-0.44
6/8/2023 12:55:00 AM	94.89	778.78	20.04	621.05	6.56	7.47	18,456.26	11,954.85	-0.44
6/8/2023 12:55:00 PM	95.26	778.54	20.07	621.02	6.56	7.47	18,448.42	11,949.39	-0.44
6/9/2023 12:55:00 AM	95.29	778.65	20.05	621.04	6.56	7.47	18,447.21	11,949.40	-0.44
6/9/2023 12:55:00 PM	95.24	778.83	20.04	621.05	6.55	7.47	18,456.34	11,953.34	-0.44
6/10/2023 12:55:00 AM	95.02	778.89	20.03	621.06	6.55	7.47	18,449.55	11,948.74	-0.44
6/10/2023 12:55:00 PM	94.81	779.26	19.99	621.10	6.56	7.47	18,459.78	11,957.63	-0.44
6/11/2023 12:55:00 AM	94.49	779.21	20.00	621.09	6.56	7.47	18,455.55	11,954.64	-0.44
6/11/2023 12:55:00 PM	94.78	779.24	20.00	621.09	6.56	7.47	18,452.89	11,953.34	-0.44
6/12/2023 12:55:00 AM	95.01	779.27	19.99	621.10	6.56	7.47	18,454.98	11,954.39	-0.44
6/12/2023 12:55:00 PM	94.95	779.01	20.02	621.07	6.56	7.47	18,453.20	11,953.60	-0.44
6/13/2023 12:55:00 AM	94.57	779.23	20.00	621.09	6.56	7.47	18,465.38	11,961.76	-0.44
6/13/2023 12:55:00 PM	93.96	779.28	19.99	621.10	6.55	7.47	18,452.91	11,950.10	-0.44
6/14/2023 12:55:00 AM	93.38	779.39	19.98	621.11	6.56	7.47	18,460.64	11,957.07	-0.44
6/14/2023 12:55:00 PM	93.51	779.58	19.96	621.13	6.56	7.47	18,456.42	11,954.90	-0.44
6/15/2023 12:55:00 AM	93.71	779.66	19.95	621.14	6.55	7.47	18,455.91	11,953.08	-0.44
6/15/2023 12:55:00 PM	94.52	779.50	19.97	621.12	6.56	7.47	18,451.40	11,950.93	-0.44
6/16/2023 12:55:00 AM	94.84	779.28	19.99	621.10	6.56	7.47	18,460.49	11,957.57	-0.44
6/16/2023 12:55:00 PM	94.29	779.43	19.98	621.11	6.56	7.47	18,460.94	11,957.83	-0.44
6/17/2023 12:55:00 AM	94.30	779.37	19.98	621.11	6.55	7.47	18,457.77	11,952.61	-0.44
6/17/2023 12:55:00 PM	94.27	779.39	19.98	621.11	6.56	7.47	18,461.73	11,958.44	-0.44
6/18/2023 12:55:00 AM	93.98	779.69	19.95	621.14	6.54	7.47	18,466.65	11,957.14	-0.44
6/18/2023 12:55:00 PM	93.61	779.74	19.94	621.15	6.56	7.47	18,462.81	11,958.84	-0.44

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 12:55:00 AM	93.06	779.81	19.94	621.15	6.56	7.47	18,457.91	11,955.34	-0.44
6/19/2023 12:55:00 PM	93.10	779.86	19.93	621.16	6.55	7.47	18,462.47	11,957.91	-0.44
6/20/2023 12:55:00 AM	93.91	780.07	19.91	621.18	6.55	7.47	18,458.58	11,953.02	-0.44
6/20/2023 12:55:00 PM	94.69	780.19	19.90	621.19	6.55	7.47	18,461.65	11,957.35	-0.44
6/21/2023 12:55:00 AM	95.04	780.05	19.91	621.18	6.56	7.47	18,464.74	11,960.06	-0.44
6/21/2023 12:55:00 PM	95.00	780.22	19.90	621.19	6.55	7.47	18,458.47	11,954.62	-0.44
6/22/2023 12:55:00 AM	95.05	780.35	19.88	621.21	6.55	7.47	18,465.61	11,959.45	-0.44
6/22/2023 12:55:00 PM	95.00	780.33	19.88	621.21	6.55	7.48	18,460.67	11,955.31	-0.44
6/23/2023 12:55:00 AM	94.85	780.14	19.90	621.19	6.56	7.47	18,460.26	11,958.10	-0.45
6/23/2023 12:55:00 PM	94.80	780.06	19.91	621.18	6.56	7.47	18,460.49	11,957.27	-0.44
6/24/2023 12:55:00 AM	94.82	780.62	19.86	621.23	6.56	7.47	18,466.19	11,960.77	-0.44
6/24/2023 12:55:00 PM	94.80	780.21	19.90	621.19	6.56	7.47	18,464.76	11,959.46	-0.44
6/25/2023 12:55:00 AM	94.69	780.15	19.90	621.19	6.55	7.47	18,465.97	11,960.01	-0.44
6/25/2023 12:55:00 PM	95.04	780.16	19.90	621.19	6.55	7.47	18,461.21	11,955.59	-0.44
6/26/2023 12:55:00 AM	94.98	780.29	19.89	621.20	6.56	7.48	18,464.41	11,959.40	-0.44
6/26/2023 12:55:00 PM	94.67	780.33	19.88	621.21	6.56	7.48	18,463.45	11,959.88	-0.44
6/27/2023 12:55:00 AM	94.47	780.71	19.85	621.24	6.56	7.47	18,470.10	11,964.05	-0.44
6/27/2023 12:55:00 PM	94.42	780.67	19.85	621.24	6.55	7.48	18,467.21	11,960.46	-0.44
6/28/2023 12:55:00 AM	94.59	780.61	19.86	621.23	6.56	7.48	18,462.27	11,958.62	-0.44
6/28/2023 12:55:00 PM	94.77	780.48	19.87	621.22	6.56	7.47	18,468.19	11,962.41	-0.44
6/29/2023 12:55:00 AM	94.67	780.65	19.85	621.24	6.56	7.48	18,466.00	11,961.21	-0.45
6/29/2023 12:55:00 PM	94.71	780.51	19.87	621.22	6.55	7.48	18,462.94	11,955.76	-0.45
6/30/2023 12:55:00 AM	94.76	780.64	19.85	621.24	6.56	7.47	18,462.67	11,958.71	-0.45
6/30/2023 12:55:00 PM	94.81	780.78	19.84	621.25	6.56	7.48	18,466.08	11,961.27	-0.45
7/1/2023 12:55:00 AM	94.71	780.63	19.85	621.24	6.55	7.48	18,465.00	11,959.52	-0.45
7/1/2023 12:55:00 PM	94.60	780.93	19.82	621.27	6.55	7.48	18,466.16	11,959.58	-0.45
7/2/2023 12:55:00 AM	94.52	781.23	19.79	621.30	6.55	7.48	18,469.46	11,962.39	-0.45
7/2/2023 12:55:00 PM	94.52	780.57	19.86	621.23	6.55	7.48	18,465.79	11,958.72	-0.45
7/3/2023 12:55:00 AM	94.73	780.81	19.84	621.25	6.55	7.48	18,465.12	11,959.05	-0.45
7/3/2023 12:55:00 PM	94.98	780.55	19.86	621.23	6.55	7.48	18,465.62	11,959.61	-0.45
7/4/2023 12:55:00 AM	95.58	780.74	19.84	621.25	6.56	7.48	18,470.32	11,964.13	-0.45
7/4/2023 12:55:00 PM	95.62	780.58	19.86	621.23	6.55	7.48	18,472.81	11,964.12	-0.45
7/5/2023 12:55:00 AM	95.41	780.65	19.85	621.24	6.55	7.48	18,471.35	11,963.02	-0.45
7/5/2023 12:55:00 PM	95.06	780.62	19.86	621.23	6.56	7.48	18,470.80	11,963.65	-0.45
7/6/2023 12:55:00 AM	94.88	780.72	19.85	621.24	6.56	7.48	18,468.33	11,962.92	-0.45
7/6/2023 12:55:00 PM	95.05	780.62	19.85	621.24	6.56	7.48	18,475.06	11,966.91	-0.45
7/7/2023 12:55:00 AM	95.18	780.77	19.84	621.25	6.56	7.48	18,475.11	11,967.23	-0.45
7/7/2023 12:55:00 PM	95.35	780.84	19.83	621.26	6.56	7.48	18,473.16	11,965.27	-0.45
7/8/2023 12:55:00 AM	95.10	780.53	19.86	621.23	6.56	7.47	18,476.61	11,967.77	-0.45
7/8/2023 12:55:00 PM	94.73	780.84	19.83	621.26	6.55	7.48	18,468.89	11,961.53	-0.45
7/9/2023 12:55:00 AM	94.44	780.62	19.85	621.24	6.55	7.48	18,477.31	11,967.15	-0.45
7/9/2023 12:55:00 PM	94.42	780.71	19.85	621.24	6.56	7.48	18,475.44	11,967.17	-0.45
7/10/2023 12:55:00 AM	94.48	780.91	19.83	621.26	6.56	7.48	18,475.10	11,967.25	-0.45
7/10/2023 12:56:00 PM	94.84	780.69	19.85	621.24	6.55	7.48	18,471.71	11,963.06	-0.45
7/11/2023 12:56:00 AM	94.85	780.85	19.83	621.26	6.55	7.48	18,474.46	11,964.46	-0.45
7/11/2023 12:56:00 PM	94.81	780.92	19.82	621.27	6.56	7.48	18,474.76	11,966.23	-0.45
7/12/2023 12:56:00 AM	94.75	781.13	19.80	621.29	6.55	7.48	18,473.88	11,964.78	-0.45
7/12/2023 12:56:00 PM	94.61	780.81	19.84	621.25	6.56	7.48	18,476.42	11,967.26	-0.45
7/13/2023 12:56:00 AM	94.61	781.03	19.81	621.28	6.56	7.48	18,477.59	11,968.06	-0.45
7/13/2023 12:56:00 PM	94.74	780.78	19.84	621.25	6.55	7.47	18,473.79	11,964.10	-0.45
7/14/2023 12:56:00 AM	94.91	780.58	19.86	621.23	6.56	7.48	18,475.25	11,966.81	-0.45
7/14/2023 12:56:00 PM	95.20	781.03	19.81	621.28	6.55	7.49	18,477.76	11,967.00	-0.45
7/15/2023 12:56:00 AM	95.18	780.52	19.87	621.22	6.56	7.47	18,471.85	11,965.34	-0.45
7/15/2023 12:56:00 PM	95.09	780.76	19.84	621.25	6.56	7.48	18,475.97	11,967.98	-0.45
7/16/2023 12:56:00 AM	95.11	780.93	19.82	621.27	6.56	7.48	18,477.55	11,968.06	-0.45
7/16/2023 12:56:00 PM	95.13	780.80	19.84	621.25	6.55	7.48	18,472.38	11,963.54	-0.45
7/17/2023 12:56:00 AM	94.74	781.01	19.82	621.27	6.56	7.48	18,474.60	11,966.29	-0.45
7/17/2023 12:56:00 PM	94.22	780.54	19.86	621.23	6.56	7.48	18,473.59	11,966.06	-0.45
7/18/2023 12:56:00 AM	94.09	780.74	19.84	621.25	6.56	7.48	18,477.63	11,967.96	-0.45
7/18/2023 12:56:00 PM	94.64	780.70	19.85	621.24	6.56	7.48	18,474.53	11,966.22	-0.45
7/19/2023 12:56:00 AM	95.37	780.55	19.86	621.23	6.55	7.48	18,474.49	11,965.51	-0.45
7/19/2023 12:56:00 PM	95.69	780.58	19.86	621.23	6.56	7.48	18,473.66	11,965.66	-0.45
7/20/2023 12:56:00 AM	95.64	781.09	19.81	621.28	6.56	7.48	18,476.15	11,967.23	-0.45
7/20/2023 12:56:00 PM	95.63	780.81	19.84	621.25	6.56	7.47	18,475.66	11,966.87	-0.45
7/21/2023 12:56:00 AM	95.42	780.78	19.84	621.25	6.56	7.47	18,471.87	11,964.38	-0.45
7/21/2023 12:56:00 PM	95.30	780.56	19.86	621.23	6.56	7.47	18,473.40	11,965.59	-0.45
7/22/2023 12:56:00 AM	95.02	780.96	19.82	621.27	6.55	7.48	18,479.60	11,968.44	-0.45
7/22/2023 12:56:00 PM	94.78	780.83	19.83	621.26	6.56	7.47	18,479.80	11,969.55	-0.45
7/23/2023 12:56:00 AM	94.73	780.67	19.85	621.24	6.55	7.48	18,474.55	11,965.13	-0.45
7/23/2023 12:56:00 PM	94.92	780.91	19.83	621.26	6.56	7.46	18,470.74	11,964.03	-0.45

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 12:56:00 AM	94.87	780.95	19.82	621.27	6.56	7.46	18,478.71	11,969.43	-0.45
7/24/2023 12:56:00 PM	94.58	780.80	19.84	621.25	6.55	7.49	18,475.02	11,965.63	-0.45
7/25/2023 12:56:00 AM	94.21	780.79	19.84	621.25	6.55	7.49	18,475.61	11,966.02	-0.45
7/25/2023 12:56:00 PM	94.30	780.97	19.82	621.27	6.55	7.48	18,474.21	11,964.83	-0.45
7/26/2023 12:56:00 AM	94.55	780.97	19.82	621.27	6.56	7.49	18,477.41	11,968.31	-0.45
7/26/2023 12:56:00 PM	94.27	781.12	19.80	621.29	6.56	7.49	18,470.24	11,963.76	-0.45
7/27/2023 12:56:00 AM	94.76	780.88	19.83	621.26	6.55	7.49	18,474.12	11,965.23	-0.45
7/27/2023 12:56:00 PM	95.49	781.00	19.82	621.27	6.55	7.49	18,476.60	11,966.48	-0.45
7/28/2023 12:56:00 AM	95.85	781.08	19.81	621.28	6.56	7.49	18,470.38	11,964.36	-0.45
7/28/2023 12:56:00 PM	95.99	781.12	19.80	621.29	6.56	7.50	18,474.36	11,966.97	-0.45
7/29/2023 12:56:00 AM	95.90	781.11	19.81	621.28	6.56	7.50	18,469.38	11,963.07	-0.45
7/29/2023 12:56:00 PM	95.71	780.92	19.82	621.27	6.55	7.50	18,475.65	11,966.35	-0.45
7/30/2023 12:56:00 AM	95.39	780.96	19.82	621.27	6.56	7.50	18,468.76	11,962.33	-0.45
7/30/2023 12:56:00 PM	95.00	781.20	19.80	621.29	6.56	7.50	18,473.82	11,966.21	-0.45
7/31/2023 12:56:00 AM	94.79	781.00	19.82	621.27	6.56	7.49	18,477.57	11,968.50	-0.45
7/31/2023 12:56:00 PM	94.89	781.07	19.81	621.28	6.56	7.50	18,473.33	11,965.98	-0.45
8/1/2023 12:56:00 AM	95.05	781.29	19.79	621.30	6.56	7.50	18,475.76	11,966.81	-0.45
8/1/2023 12:56:00 PM	95.15	781.27	19.79	621.30	6.56	7.50	18,471.17	11,963.67	-0.45
8/2/2023 12:56:00 AM	95.29	781.25	19.79	621.30	6.56	7.50	18,471.91	11,964.82	-0.45
8/2/2023 12:56:00 PM	95.38	781.07	19.81	621.28	6.56	7.50	18,466.00	11,961.08	-0.45
8/3/2023 12:56:00 AM	95.16	781.30	19.79	621.30	6.56	7.50	18,470.58	11,963.44	-0.45
8/3/2023 12:56:00 PM	95.22	781.15	19.80	621.29	6.55	7.49	18,468.84	11,961.08	-0.45
8/4/2023 12:56:00 AM	-	-	-	-	6.56	7.50	18,466.79	11,961.65	-0.45
8/4/2023 12:56:00 PM	-	-	-	-	6.56	7.50	18,465.19	11,959.99	-0.45
8/5/2023 12:56:00 AM	-	-	-	-	6.56	7.50	18,469.39	11,962.87	-0.45
8/5/2023 12:56:00 PM	-	-	-	-	6.56	7.50	18,470.05	11,963.49	-0.45
8/6/2023 12:56:00 AM	-	-	-	-	6.56	7.50	18,467.54	11,961.86	-0.45
8/6/2023 12:56:00 PM	-	-	-	-	6.56	7.50	18,474.11	11,966.22	-0.45
8/7/2023 12:56:00 AM	-	-	-	-	6.56	7.50	18,473.70	11,966.33	-0.45
8/7/2023 12:56:00 PM	-	-	-	-	6.56	7.50	18,465.63	11,960.99	-0.45
8/8/2023 12:56:00 AM	-	-	-	-	6.57	7.51	18,463.87	11,962.84	-0.45
8/9/2023 12:56:00 AM	94.62	752.76	20.99	620.10	6.47	7.43	19,255.94	12,440.65	-0.20
8/9/2023 12:56:00 PM	94.22	753.16	20.95	620.14	6.48	7.42	19,248.13	12,439.11	-0.26
8/10/2023 12:56:00 AM	93.67	753.59	20.90	620.19	6.48	7.41	19,251.37	12,441.58	-0.27
8/10/2023 12:56:00 PM	93.64	753.96	20.86	620.23	6.48	7.42	19,250.39	12,440.60	-0.29
8/11/2023 12:56:00 AM	94.04	754.52	20.81	620.28	6.48	7.42	19,252.32	12,443.55	-0.30
8/11/2023 12:56:00 PM	94.54	754.83	20.78	620.31	6.49	7.41	19,251.41	12,445.14	-0.31
8/12/2023 12:56:00 AM	94.72	755.07	20.75	620.34	6.48	7.42	19,251.24	12,442.34	-0.31
8/12/2023 12:56:00 PM	95.02	755.27	20.73	620.36	6.48	7.42	19,250.88	12,441.05	-0.32
8/13/2023 12:56:00 AM	95.44	755.51	20.71	620.38	6.48	7.42	19,250.72	12,442.61	-0.33
8/13/2023 12:56:00 PM	95.33	755.98	20.66	620.43	6.49	7.42	19,252.51	12,446.58	-0.33
8/14/2023 12:56:00 AM	95.10	756.08	20.65	620.44	6.49	7.42	19,254.98	12,446.44	-0.34
8/14/2023 12:56:00 PM	95.12	756.42	20.62	620.47	6.49	7.43	19,258.87	12,448.67	-0.34
8/15/2023 12:56:00 AM	95.22	756.75	20.58	620.51	6.49	7.42	19,259.96	12,450.22	-0.35
8/15/2023 12:56:00 PM	94.58	757.02	20.56	620.53	6.49	7.42	19,263.14	12,452.42	-0.35
8/16/2023 12:56:00 AM	94.63	757.05	20.55	620.54	6.49	7.42	19,264.21	12,453.66	-0.36
8/16/2023 12:56:00 PM	94.98	757.80	20.48	620.61	6.49	7.42	19,266.89	12,454.93	-0.37
8/17/2023 12:56:00 AM	94.57	757.96	20.46	620.63	6.49	7.43	19,277.16	12,462.65	-0.38
8/17/2023 12:56:00 PM	93.87	757.96	20.46	620.63	6.49	7.43	19,279.01	12,461.83	-0.38
8/18/2023 12:56:00 AM	93.74	758.27	20.43	620.66	6.49	7.42	19,278.94	12,462.30	-0.39
8/18/2023 12:56:00 PM	93.93	758.65	20.39	620.70	6.49	7.43	19,281.95	12,466.40	-0.39
8/19/2023 12:56:00 AM	94.91	758.85	20.37	620.72	6.49	7.43	19,294.41	12,473.21	-0.40
8/19/2023 12:56:00 PM	95.50	758.75	20.38	620.71	6.49	7.43	19,292.21	12,471.28	-0.40
8/20/2023 12:56:00 AM	95.66	758.85	20.37	620.72	6.49	7.43	19,286.53	12,467.39	-0.40
8/20/2023 12:56:00 PM	95.57	759.39	20.32	620.77	6.49	7.43	19,298.68	12,476.45	-0.41
8/21/2023 12:56:00 AM	95.45	759.34	20.32	620.77	6.49	7.43	19,294.55	12,474.34	-0.41
8/21/2023 12:56:00 PM	95.41	759.74	20.28	620.81	6.49	7.43	19,290.29	12,470.61	-0.42
8/22/2023 12:56:00 AM	95.20	759.83	20.27	620.82	6.49	7.43	19,294.94	12,473.52	-0.42
8/22/2023 12:56:00 PM	95.09	759.56	20.30	620.79	6.49	7.43	19,297.86	12,476.62	-0.42
8/23/2023 12:56:00 AM	94.87	759.92	20.26	620.83	6.49	7.43	19,284.72	12,467.55	-0.42
8/23/2023 12:56:00 PM	94.64	760.18	20.24	620.85	6.50	7.43	19,284.92	12,469.89	-0.42
8/24/2023 12:56:00 AM	94.46	760.31	20.22	620.87	6.49	7.43	19,284.85	12,468.30	-0.42
8/24/2023 12:56:00 PM	95.18	760.77	20.18	620.91	6.50	7.43	19,278.87	12,466.30	-0.43
8/25/2023 12:56:00 AM	95.86	760.71	20.18	620.91	6.49	7.44	19,275.35	12,461.17	-0.43
8/25/2023 12:56:00 PM	95.80	760.84	20.17	620.92	6.49	7.44	19,271.58	12,458.38	-0.43
8/26/2023 12:56:00 AM	95.29	760.62	20.19	620.90	6.49	7.43	19,271.67	12,459.06	-0.43
8/26/2023 12:56:00 PM	95.02	760.93	20.16	620.93	6.50	7.43	19,265.54	12,456.52	-0.43
8/27/2023 12:56:00 AM	95.16	761.50	20.10	620.99	6.50	7.43	19,267.08	12,458.94	-0.43
8/27/2023 12:56:00 PM	95.38	761.24	20.13	620.96	6.50	7.43	19,264.87	12,456.92	-0.43
8/28/2023 12:56:00 AM	95.26	761.53	20.10	620.99	6.50	7.43	19,270.65	12,461.32	-0.43

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 12:56:00 PM	95.26	761.48	20.11	620.98	6.50	7.44	19,268.25	12,457.85	-0.44
8/29/2023 12:56:00 AM	95.18	761.80	20.07	621.02	6.50	7.44	19,262.88	12,456.63	-0.44
8/29/2023 12:56:00 PM	94.87	761.49	20.10	620.99	6.50	7.43	19,267.24	12,459.65	-0.44
8/30/2023 12:56:00 AM	94.32	761.63	20.09	621.00	6.50	7.44	19,273.45	12,463.49	-0.44
8/30/2023 12:56:00 PM	93.95	761.77	20.08	621.01	6.50	7.43	19,266.15	12,457.53	-0.44
8/31/2023 12:56:00 AM	93.91	761.92	20.06	621.03	6.50	7.43	19,267.58	12,458.90	-0.44
8/31/2023 12:56:00 PM	93.98	762.03	20.05	621.04	6.50	7.43	19,272.83	12,462.81	-0.44
9/1/2023 12:56:00 AM	94.30	762.33	20.02	621.07	6.50	7.44	19,267.31	12,459.26	-0.44
9/1/2023 12:57:00 PM	94.39	762.47	20.01	621.08	6.50	7.44	19,277.17	12,464.45	-0.44
9/2/2023 12:57:00 AM	93.77	762.46	20.01	621.08	6.50	7.43	19,275.99	12,464.52	-0.44
9/2/2023 12:57:00 PM	94.04	762.46	20.01	621.08	6.49	7.44	19,274.56	12,461.13	-0.44
9/3/2023 12:57:00 AM	94.30	762.37	20.02	621.07	6.50	7.44	19,275.55	12,462.98	-0.44
9/3/2023 12:57:00 PM	94.06	762.63	19.99	621.10	6.50	7.44	19,278.75	12,467.86	-0.45
9/4/2023 12:57:00 AM	94.31	762.77	19.97	621.12	6.50	7.44	19,276.02	12,464.01	-0.45
9/4/2023 12:57:00 PM	94.87	762.65	19.99	621.10	6.50	7.44	19,276.88	12,466.30	-0.45
9/5/2023 12:57:00 AM	95.16	762.94	19.96	621.13	6.50	7.44	19,281.90	12,467.89	-0.45
9/5/2023 12:57:00 PM	94.99	762.72	19.98	621.11	6.50	7.44	19,275.98	12,464.52	-0.45
9/6/2023 12:57:00 AM	94.60	762.73	19.98	621.11	6.49	7.44	19,277.34	12,462.13	-0.45
9/6/2023 12:57:00 PM	94.69	762.88	19.96	621.13	6.50	7.44	19,288.42	12,472.22	-0.45
9/7/2023 12:57:00 AM	94.64	763.07	19.94	621.15	6.50	7.44	19,275.89	12,463.69	-0.45
9/7/2023 12:57:00 PM	94.88	762.78	19.97	621.12	6.49	7.44	19,277.10	12,463.19	-0.45
9/8/2023 12:57:00 AM	95.19	762.87	19.97	621.12	6.49	7.44	19,284.64	12,467.37	-0.45
9/8/2023 12:57:00 PM	95.51	762.96	19.96	621.13	6.50	7.44	19,280.56	12,465.87	-0.45
9/9/2023 12:57:00 AM	95.81	763.18	19.93	621.16	6.50	7.44	19,281.63	12,469.01	-0.45
9/9/2023 12:57:00 PM	96.00	763.05	19.95	621.14	6.50	7.45	19,278.44	12,464.93	-0.45
9/10/2023 12:57:00 AM	95.88	763.31	19.92	621.17	6.50	7.45	19,279.10	12,467.65	-0.45
9/10/2023 12:57:00 PM	95.67	763.07	19.94	621.15	6.51	7.45	19,281.99	12,471.67	-0.45
9/11/2023 12:57:00 AM	95.30	763.36	19.91	621.18	6.50	7.44	19,278.90	12,465.69	-0.45
9/11/2023 12:57:00 PM	94.92	763.02	19.95	621.14	6.50	7.44	19,285.38	12,471.07	-0.45
9/12/2023 12:57:00 AM	94.60	763.38	19.91	621.18	6.50	7.45	19,282.07	12,469.09	-0.45
9/12/2023 12:57:00 PM	94.48	763.27	19.92	621.17	6.50	7.45	19,290.75	12,473.61	-0.45
9/13/2023 12:57:00 AM	94.41	763.20	19.93	621.16	6.49	7.44	19,284.75	12,468.10	-0.45
9/13/2023 12:57:00 PM	94.58	763.49	19.90	621.19	6.50	7.44	19,285.44	12,470.45	-0.45
9/14/2023 12:57:00 AM	94.97	763.33	19.92	621.17	6.50	7.45	19,280.28	12,468.88	-0.45
9/14/2023 12:57:00 PM	95.35	763.36	19.92	621.17	6.50	7.44	19,287.24	12,471.35	-0.45
9/15/2023 12:57:00 AM	95.38	763.35	19.92	621.17	6.50	7.45	19,286.11	12,470.87	-0.45
9/15/2023 12:57:00 PM	95.04	763.37	19.91	621.18	6.50	7.45	19,285.27	12,469.99	-0.45
9/16/2023 12:57:00 AM	94.49	763.49	19.90	621.19	6.50	7.44	19,289.08	12,474.64	-0.45
9/16/2023 12:57:00 PM	94.82	763.54	19.90	621.19	6.50	7.45	19,284.89	12,469.09	-0.45
9/17/2023 12:57:00 AM	94.34	763.29	19.92	621.17	6.49	7.45	19,292.98	12,472.47	-0.45
9/17/2023 12:57:00 PM	93.98	763.66	19.88	621.21	6.50	7.45	19,288.37	12,473.76	-0.45
9/18/2023 12:57:00 AM	93.84	763.59	19.89	621.20	6.50	7.45	19,290.30	12,473.97	-0.45
9/18/2023 12:57:00 PM	94.14	763.73	19.88	621.21	6.50	7.45	19,283.28	12,468.74	-0.45
9/19/2023 12:57:00 AM	94.38	763.83	19.87	621.22	6.50	7.45	19,287.00	12,472.85	-0.45
9/19/2023 12:57:00 PM	94.45	763.63	19.89	621.20	6.50	7.45	19,286.50	12,471.72	-0.45
9/20/2023 12:57:00 AM	94.53	763.61	19.89	621.20	6.50	7.45	19,294.12	12,476.09	-0.45
9/20/2023 12:57:00 PM	95.13	763.76	19.87	621.22	6.51	7.45	19,286.38	12,474.17	-0.45
9/21/2023 12:57:00 AM	95.60	763.58	19.89	621.20	6.50	7.45	19,293.32	12,474.40	-0.45
9/21/2023 12:57:00 PM	95.66	763.80	19.87	621.22	6.50	7.45	19,289.29	12,472.10	-0.45
9/22/2023 12:57:00 AM	95.40	763.97	19.85	621.24	6.50	7.45	19,289.59	12,471.80	-0.45
9/22/2023 12:57:00 PM	95.14	763.81	19.87	621.22	6.50	7.45	19,289.21	12,473.68	-0.45
9/23/2023 12:57:00 AM	94.74	763.38	19.91	621.18	6.50	7.46	19,285.55	12,469.76	-0.45
9/23/2023 12:57:00 PM	94.47	763.89	19.86	621.23	6.50	7.45	19,283.79	12,470.64	-0.45
9/24/2023 12:57:00 AM	94.11	763.96	19.85	621.24	6.50	7.45	19,290.28	12,473.57	-0.45
9/24/2023 12:57:00 PM	94.52	763.86	19.86	621.23	6.50	7.46	19,283.02	12,469.99	-0.45
9/25/2023 12:57:00 AM	94.87	763.69	19.88	621.21	6.50	7.45	19,284.31	12,470.22	-0.45
9/25/2023 12:57:00 PM	94.86	763.87	19.86	621.23	6.51	7.46	19,288.89	12,474.89	-0.45
9/26/2023 12:57:00 AM	94.11	763.59	19.89	621.20	6.50	7.45	19,289.75	12,471.97	-0.45
9/26/2023 12:57:00 PM	94.10	763.82	19.87	621.22	6.50	7.46	19,294.17	12,475.93	-0.45
9/27/2023 12:57:00 AM	94.31	763.94	19.86	621.23	6.50	7.46	19,292.50	12,474.75	-0.45
9/27/2023 12:57:00 PM	94.29	763.87	19.86	621.23	6.51	7.46	19,283.18	12,472.58	-0.45
9/28/2023 12:57:00 AM	94.36	764.11	19.84	621.25	6.51	7.46	19,292.39	12,477.80	-0.45
9/28/2023 12:57:00 PM	94.34	763.75	19.88	621.21	6.50	7.46	19,284.45	12,470.72	-0.45
9/29/2023 12:57:00 AM	94.42	763.81	19.87	621.22	6.50	7.45	19,289.41	12,473.84	-0.45
9/29/2023 12:57:00 PM	94.68	763.72	19.88	621.21	6.50	7.46	19,290.58	12,474.96	-0.45
9/30/2023 12:57:00 AM	95.25	763.91	19.86	621.23	6.50	7.46	19,288.89	12,472.49	-0.45
9/30/2023 12:57:00 PM	95.62	764.03	19.85	621.24	6.49	7.46	19,293.38	12,473.97	-0.45
10/1/2023 12:57:00 AM	95.73	763.92	19.86	621.23	6.50	7.46	19,291.26	12,472.92	-0.45
10/1/2023 12:57:00 PM	95.31	763.99	19.85	621.24	6.51	7.46	19,286.63	12,474.72	-0.45
10/2/2023 12:57:00 AM	94.60	763.96	19.85	621.24	6.50	7.46	19,288.64	12,471.03	-0.45

Table D.1 Summary of 2023 Continuous Water Quality Measurements at UL1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/2/2023 12:57:00 PM	94.20	763.83	19.87	621.22	6.49	7.46	19,293.81	12,472.68	-0.45
10/3/2023 12:57:00 AM	94.37	764.30	19.82	621.27	6.50	7.46	19,291.17	12,475.78	-0.45
10/3/2023 12:57:00 PM	94.58	764.10	19.84	621.25	6.50	7.46	19,284.94	12,468.75	-0.45
10/4/2023 12:57:00 AM	94.21	764.13	19.84	621.25	6.50	7.46	19,293.69	12,476.08	-0.45
10/4/2023 12:57:00 PM	94.62	763.94	19.86	621.23	6.50	7.46	19,293.59	12,475.41	-0.45
10/5/2023 12:57:00 AM	95.55	764.09	19.84	621.25	6.50	7.46	19,289.74	12,474.16	-0.45
10/5/2023 12:57:00 PM	96.29	764.15	19.84	621.25	6.50	7.46	19,288.78	12,472.79	-0.45
10/6/2023 12:57:00 AM	96.35	764.46	19.80	621.29	6.50	7.47	19,292.93	12,475.83	-0.45
10/6/2023 12:57:00 PM	95.39	764.01	19.85	621.24	6.50	7.46	19,294.30	12,476.01	-0.45
10/7/2023 12:57:00 AM	94.95	764.15	19.83	621.26	6.50	7.46	19,294.89	12,476.42	-0.45
10/7/2023 12:57:00 PM	95.09	763.98	19.85	621.24	6.50	7.46	19,295.01	12,476.18	-0.45
10/8/2023 12:57:00 AM	94.71	764.00	19.85	621.24	6.50	7.46	19,289.98	12,474.11	-0.45
10/8/2023 12:57:00 PM	94.39	764.08	19.84	621.25	6.50	7.47	19,296.21	12,478.67	-0.45
10/9/2023 12:57:00 AM	94.09	764.53	19.80	621.29	6.50	7.47	19,294.04	12,477.72	-0.45
10/9/2023 12:57:00 PM	93.73	764.10	19.84	621.25	6.49	7.47	19,289.63	12,471.12	-0.45
10/10/2023 12:57:00 AM	93.41	764.20	19.83	621.26	6.50	7.47	19,301.20	12,480.61	-0.45
10/10/2023 12:57:00 PM	93.07	764.38	19.81	621.28	6.49	7.47	19,287.03	12,469.77	-0.45
10/11/2023 12:57:00 AM	93.17	764.61	19.79	621.30	6.50	7.47	19,291.06	12,475.13	-0.45
10/11/2023 12:57:00 PM	93.67	763.98	19.85	621.24	6.50	7.47	19,295.38	12,477.25	-0.45
10/12/2023 12:57:00 AM	94.61	763.98	19.85	621.24	6.50	7.47	19,296.67	12,478.43	-0.45
10/12/2023 12:57:00 PM	95.53	763.99	19.85	621.24	6.50	7.47	19,295.21	12,477.18	-0.45
10/13/2023 12:57:00 AM	95.82	764.14	19.84	621.25	6.50	7.47	19,288.42	12,472.12	-0.45
10/13/2023 12:57:00 PM	95.60	763.94	19.86	621.23	6.50	7.47	19,296.98	12,477.26	-0.45
10/14/2023 12:57:00 AM	95.22	764.25	19.82	621.27	6.50	7.47	19,294.24	12,476.97	-0.45
10/14/2023 12:57:00 PM	95.25	763.98	19.85	621.24	6.50	7.47	19,293.28	12,476.44	-0.45
10/15/2023 12:57:00 AM	95.28	764.35	19.82	621.27	6.49	7.47	19,297.16	12,476.02	-0.45
10/15/2023 12:57:00 PM	95.18	764.11	19.84	621.25	6.50	7.47	19,296.55	12,479.22	-0.45
10/16/2023 12:57:00 AM	95.33	764.36	19.81	621.28	6.50	7.48	19,298.55	12,480.00	-0.45
10/16/2023 12:57:00 PM	94.89	764.27	19.82	621.27	6.50	7.47	19,294.53	12,476.08	-0.45
10/17/2023 12:57:00 AM	93.82	764.23	19.83	621.26	6.50	7.47	19,296.77	12,478.52	-0.46
10/17/2023 12:57:00 PM	94.42	764.42	19.81	621.28	6.49	7.47	19,296.20	12,475.49	-0.46
10/18/2023 12:57:00 AM	94.58	764.14	19.84	621.25	6.50	7.48	19,298.48	12,480.36	-0.46
10/18/2023 12:57:00 PM	94.06	764.42	19.81	621.28	6.49	7.47	19,296.71	12,476.15	-0.46
10/19/2023 12:57:00 AM	94.18	764.33	19.82	621.27	6.49	7.47	19,294.96	12,472.81	-0.46
10/19/2023 12:57:00 PM	94.12	764.13	19.84	621.25	6.50	7.47	19,301.13	12,481.64	-0.46
10/20/2023 12:57:00 AM	94.28	764.37	19.81	621.28	6.51	7.48	19,295.24	12,479.13	-0.46
10/20/2023 12:57:00 PM	94.86	764.51	19.80	621.29	6.50	7.47	19,293.81	12,475.65	-0.46
10/21/2023 12:57:00 AM	95.24	764.21	19.83	621.26	6.49	7.48	19,294.10	12,473.30	-0.46
10/21/2023 12:57:00 PM	94.80	764.12	19.84	621.25	6.50	7.47	19,297.32	12,479.53	-0.46
10/22/2023 12:57:00 AM	95.03	764.29	19.82	621.27	6.50	7.48	19,297.37	12,478.04	-0.46
10/22/2023 12:57:00 PM	94.90	764.18	19.83	621.26	6.50	7.47	19,295.36	12,477.57	-0.46
10/23/2023 12:57:00 AM	95.31	764.28	19.82	621.27	6.51	7.48	19,292.31	12,479.24	-0.46
10/23/2023 12:58:00 PM	95.49	764.03	19.85	621.24	6.50	7.48	19,294.24	12,475.10	-0.46
10/24/2023 12:58:00 AM	95.68	764.33	19.82	621.27	6.49	7.48	19,298.29	12,475.59	-0.46
10/24/2023 12:58:00 PM	95.78	764.41	19.81	621.28	6.50	7.48	19,297.19	12,477.75	-0.46
10/25/2023 12:58:00 AM	95.80	764.44	19.81	621.28	6.50	7.48	19,291.78	12,476.69	-0.46
10/25/2023 12:58:00 PM	95.73	764.22	19.83	621.26	6.50	7.48	19,295.10	12,477.05	-0.46
10/26/2023 12:58:00 AM	95.76	764.30	19.82	621.27	6.50	7.48	19,296.20	12,478.47	-0.46
10/26/2023 12:58:00 PM	95.95	764.02	19.85	621.24	6.50	7.48	19,292.59	12,474.10	-0.46
10/27/2023 12:58:00 AM	95.96	763.95	19.86	621.23	6.49	7.47	19,299.77	12,477.27	-0.46
10/27/2023 12:58:00 PM	95.82	764.20	19.83	621.26	6.50	7.48	19,300.47	12,479.12	-0.46
10/28/2023 12:58:00 AM	95.69	764.08	19.84	621.25	6.50	7.48	19,297.13	12,477.34	-0.46
10/28/2023 12:58:00 PM	95.86	764.35	19.81	621.28	6.50	7.48	19,296.82	12,476.68	-0.46
10/29/2023 12:58:00 AM	96.29	764.11	19.84	621.25	6.50	7.48	19,296.40	12,477.50	-0.46
10/29/2023 12:58:00 PM	96.01	764.05	19.85	621.24	6.50	7.48	19,296.65	12,478.57	-0.46
10/30/2023 12:58:00 AM	95.53	764.15	19.84	621.25	6.50	7.48	19,298.65	12,479.60	-0.46
10/30/2023 12:58:00 PM	96.06	764.31	19.82	621.27	6.51	7.48	19,292.64	12,477.57	-0.46
10/31/2023 12:58:00 AM	95.33	764.29	19.82	621.27	6.51	7.49	19,296.00	12,480.58	-0.46

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	624	624	624	624	631	490	582	428	631
[Pre-Injection] Min	91.89	519.31	4.98	631.92	5.41	7.50	12,980.72	8,191.49	-0.48
[Pre-Injection] Max	99.42	557.56	9.23	636.17	5.57	8.09	13,940.27	8,729.58	0.06
[Pre-Injection] Mean	95.09	550.93	5.91	635.24	5.45	7.84	13,475.43	8,452.67	-0.37
[Pre-Injection] Median	94.96	552.17	5.77	635.38	5.44	7.80	13,461.57	8,413.15	-0.41
[Pre-Injection] Standard Deviation	1.33	5.59	0.62	0.62	0.02	0.17	256.41	152.19	0.10
[2023] Count	603	603	603	603	603	603	603	603	603
[2023] Min	92.31	507.32	6.46	632.13	5.54	7.50	11,670.48	8,449.27	-0.51
[2023] Max	96.71	532.63	9.02	634.69	5.56	7.76	12,174.47	8,815.41	-0.22
[2023] Mean	94.67	528.97	6.85	634.30	5.55	7.62	11,913.82	8,625.82	-0.36
[2023] Median	94.65	530.94	6.65	634.50	5.55	7.63	11,856.31	8,584.73	-0.31
[2023] Standard Deviation	0.74	4.68	0.47	0.47	0.00	0.07	176.20	127.92	0.09
1/1/2023 10:26:00 AM	94.38	531.77	6.55	634.60	5.55	7.75	11,986.86	8,679.17	-0.29
1/1/2023 10:26:00 PM	94.28	531.86	6.54	634.61	5.55	7.76	11,986.74	8,678.50	-0.29
1/2/2023 10:26:00 AM	94.09	531.79	6.55	634.60	5.55	7.75	11,986.95	8,679.47	-0.29
1/2/2023 10:26:00 PM	93.78	531.85	6.54	634.61	5.55	7.76	11,985.65	8,677.67	-0.29
1/3/2023 10:26:00 AM	93.63	531.81	6.54	634.61	5.55	7.75	11,986.38	8,678.15	-0.29
1/3/2023 10:26:00 PM	93.94	531.95	6.53	634.62	5.55	7.75	11,986.79	8,679.29	-0.29
1/4/2023 10:26:00 AM	94.52	531.90	6.54	634.61	5.55	7.75	11,986.68	8,679.19	-0.29
1/4/2023 10:26:00 PM	94.74	531.85	6.54	634.61	5.55	7.76	11,986.68	8,679.07	-0.29
1/5/2023 10:26:00 AM	94.62	531.90	6.54	634.61	5.55	7.76	11,986.60	8,678.58	-0.29
1/5/2023 10:26:00 PM	94.06	531.96	6.53	634.62	5.55	7.76	11,987.14	8,679.17	-0.29
1/6/2023 10:26:00 AM	94.09	532.01	6.52	634.63	5.55	7.75	11,987.32	8,679.59	-0.29
1/6/2023 10:26:00 PM	94.32	532.03	6.52	634.63	5.55	7.75	11,986.98	8,678.43	-0.29
1/7/2023 10:26:00 AM	94.50	531.96	6.53	634.62	5.55	7.76	11,987.35	8,679.72	-0.29
1/7/2023 10:26:00 PM	94.39	531.95	6.53	634.62	5.55	7.76	11,987.21	8,678.50	-0.29
1/8/2023 10:26:00 AM	93.90	532.01	6.52	634.63	5.55	7.76	11,988.22	8,679.21	-0.29
1/8/2023 10:26:00 PM	93.71	532.02	6.52	634.63	5.55	7.75	11,988.34	8,680.59	-0.30
1/9/2023 10:26:00 AM	93.82	531.99	6.53	634.62	5.55	7.76	11,988.13	8,679.66	-0.30
1/9/2023 10:26:00 PM	93.82	532.12	6.51	634.64	5.55	7.76	11,987.57	8,678.74	-0.30
1/10/2023 10:26:00 AM	94.03	532.05	6.52	634.63	5.55	7.75	11,988.96	8,680.62	-0.30
1/10/2023 10:26:00 PM	94.45	532.03	6.52	634.63	5.55	7.76	11,988.18	8,679.98	-0.30
1/11/2023 10:26:00 AM	95.04	532.06	6.52	634.63	5.55	7.76	11,988.98	8,680.82	-0.30
1/11/2023 10:26:00 PM	95.15	532.03	6.52	634.63	5.55	7.76	11,988.25	8,680.12	-0.30
1/12/2023 10:26:00 AM	95.05	532.21	6.50	634.65	5.55	7.76	11,989.18	8,679.87	-0.30
1/12/2023 10:26:00 PM	94.53	532.09	6.52	634.63	5.55	7.76	11,988.25	8,680.37	-0.30
1/13/2023 10:26:00 AM	94.24	532.10	6.52	634.63	5.55	7.76	11,988.71	8,680.00	-0.30
1/13/2023 10:26:00 PM	93.64	532.13	6.51	634.64	5.55	7.76	11,989.23	8,680.58	-0.30
1/14/2023 10:26:00 AM	93.45	532.20	6.51	634.64	5.55	7.76	11,989.15	8,680.27	-0.30
1/14/2023 10:26:00 PM	93.45	532.14	6.51	634.64	5.55	7.76	11,988.87	8,680.48	-0.30
1/15/2023 10:26:00 AM	93.46	532.22	6.50	634.65	5.55	7.76	11,989.22	8,680.25	-0.30
1/15/2023 10:26:00 PM	93.60	532.19	6.51	634.64	5.55	7.76	11,989.15	8,680.81	-0.30
1/16/2023 10:26:00 AM	93.78	532.19	6.51	634.64	5.55	7.76	11,988.16	8,680.19	-0.30
1/16/2023 10:26:00 PM	93.88	532.26	6.50	634.65	5.55	7.76	11,989.38	8,680.84	-0.30
1/17/2023 10:26:00 AM	94.05	532.23	6.50	634.65	5.55	7.76	11,989.69	8,681.17	-0.30
1/17/2023 10:26:00 PM	94.07	532.16	6.51	634.64	5.55	7.76	11,990.10	8,680.86	-0.30
1/18/2023 10:26:00 AM	94.05	532.14	6.51	634.64	5.55	7.76	11,989.43	8,680.96	-0.30
1/18/2023 10:26:00 PM	94.00	532.21	6.50	634.65	5.55	7.76	11,990.86	8,681.76	-0.30
1/19/2023 10:26:00 AM	94.70	532.25	6.50	634.65	5.55	7.76	11,989.90	8,681.70	-0.30
1/19/2023 10:26:00 PM	94.88	532.18	6.51	634.64	5.55	7.76	11,990.46	8,681.69	-0.31
1/20/2023 10:26:00 AM	94.89	532.19	6.51	634.64	5.55	7.76	11,990.21	8,681.21	-0.31
1/20/2023 10:26:00 PM	94.78	532.20	6.51	634.64	5.55	7.76	11,991.10	8,681.81	-0.31
1/21/2023 10:26:00 AM	94.45	532.20	6.51	634.64	5.55	7.76	11,991.23	8,682.10	-0.31
1/21/2023 10:26:00 PM	93.83	532.22	6.50	634.65	5.55	7.76	11,990.64	8,681.76	-0.31
1/22/2023 10:26:00 AM	94.58	532.20	6.51	634.64	5.55	7.76	11,991.42	8,681.58	-0.31
1/22/2023 10:26:00 PM	95.04	532.25	6.50	634.65	5.55	7.76	11,991.90	8,682.00	-0.31
1/23/2023 10:26:00 AM	94.10	532.25	6.50	634.65	5.55	7.76	11,991.57	8,682.39	-0.31
1/23/2023 10:26:00 PM	94.37	532.24	6.50	634.65	5.55	7.76	11,991.87	8,682.97	-0.31
1/24/2023 10:26:00 AM	94.75	532.28	6.50	634.65	5.55	7.75	11,992.73	8,683.28	-0.31
1/24/2023 10:26:00 PM	95.22	532.20	6.51	634.64	5.55	7.75	11,992.73	8,682.44	-0.31
1/25/2023 10:26:00 AM	95.49	532.19	6.51	634.64	5.55	7.75	11,992.45	8,683.53	-0.31
1/25/2023 10:26:00 PM	94.51	532.27	6.50	634.65	5.55	7.75	11,992.99	8,683.09	-0.31
1/26/2023 10:26:00 AM	94.23	532.34	6.49	634.66	5.55	7.74	11,993.79	8,684.31	-0.31
1/26/2023 10:26:00 PM	94.35	532.38	6.49	634.66	5.55	7.74	11,993.81	8,683.65	-0.31
1/27/2023 10:26:00 AM	95.28	532.25	6.50	634.65	5.55	7.74	11,993.09	8,683.50	-0.31
1/27/2023 10:26:00 PM	96.14	532.25	6.50	634.65	5.55	7.74	11,994.99	8,684.84	-0.31
1/28/2023 10:26:00 AM	96.50	532.32	6.49	634.66	5.55	7.73	11,994.70	8,684.18	-0.31
1/28/2023 10:26:00 PM	96.34	532.32	6.49	634.66	5.55	7.73	11,994.38	8,684.62	-0.31
1/29/2023 10:26:00 AM	96.10	532.28	6.50	634.65	5.55	7.72	11,993.32	8,683.89	-0.31

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 10:26:00 PM	95.10	532.39	6.49	634.66	5.55	7.73	11,993.67	8,684.08	-0.31
1/30/2023 10:26:00 AM	95.28	532.44	6.48	634.67	5.55	7.72	11,994.53	8,683.99	-0.31
1/30/2023 10:26:00 PM	94.43	532.38	6.49	634.66	5.55	7.72	11,993.59	8,683.52	-0.31
1/31/2023 10:26:00 AM	94.60	532.36	6.49	634.66	5.55	7.72	11,995.05	8,684.31	-0.31
1/31/2023 10:26:00 PM	94.42	532.34	6.49	634.66	5.55	7.72	11,995.58	8,684.72	-0.31
2/1/2023 10:26:00 AM	95.25	532.34	6.49	634.66	5.55	7.72	11,995.88	8,685.22	-0.31
2/1/2023 10:26:00 PM	96.04	532.43	6.48	634.67	5.55	7.71	11,994.95	8,684.98	-0.31
2/2/2023 10:26:00 AM	95.44	532.41	6.48	634.67	5.55	7.71	11,996.45	8,685.51	-0.31
2/2/2023 10:26:00 PM	94.44	532.44	6.48	634.67	5.55	7.71	11,996.35	8,686.16	-0.31
2/3/2023 10:26:00 AM	93.73	532.56	6.47	634.68	5.55	7.71	11,996.12	8,685.37	-0.31
2/3/2023 10:26:00 PM	93.51	532.50	6.48	634.67	5.55	7.71	11,995.80	8,685.21	-0.31
2/4/2023 10:26:00 AM	93.82	532.62	6.46	634.69	5.55	7.71	11,997.41	8,686.41	-0.31
2/4/2023 10:26:00 PM	93.85	532.50	6.48	634.67	5.55	7.70	11,996.67	8,685.17	-0.31
2/5/2023 10:26:00 AM	93.09	532.50	6.48	634.67	5.55	7.70	11,997.46	8,686.89	-0.31
2/5/2023 10:26:00 PM	93.25	532.59	6.47	634.68	5.55	7.70	11,996.61	8,685.93	-0.32
2/6/2023 10:26:00 AM	93.88	532.61	6.46	634.69	5.55	7.70	11,996.74	8,686.57	-0.32
2/6/2023 10:26:00 PM	93.39	532.59	6.47	634.68	5.55	7.70	11,997.95	8,686.85	-0.32
2/7/2023 10:26:00 AM	94.10	532.56	6.47	634.68	5.55	7.70	11,997.59	8,686.35	-0.32
2/7/2023 10:26:00 PM	93.99	532.47	6.48	634.67	5.55	7.70	11,997.81	8,686.70	-0.32
2/8/2023 10:26:00 AM	95.12	532.44	6.48	634.67	5.55	7.70	11,998.04	8,687.49	-0.33
2/8/2023 10:26:00 PM	95.45	532.44	6.48	634.67	5.55	7.69	11,999.68	8,688.60	-0.33
2/9/2023 10:26:00 AM	95.11	532.56	6.47	634.68	5.55	7.70	11,998.81	8,687.40	-0.33
2/9/2023 10:26:00 PM	94.42	532.48	6.48	634.67	5.55	7.70	11,998.44	8,687.09	-0.34
2/10/2023 10:26:00 AM	93.63	532.53	6.47	634.68	5.55	7.69	11,999.88	8,688.46	-0.35
2/10/2023 10:26:00 PM	94.14	532.54	6.47	634.68	5.55	7.70	12,000.09	8,688.33	-0.38
2/11/2023 10:26:00 AM	94.26	532.46	6.48	634.67	5.55	7.70	12,000.38	8,688.55	-0.45
2/11/2023 10:26:00 PM	94.16	532.63	6.46	634.69	5.55	7.70	12,000.65	8,689.32	-0.46
2/12/2023 10:26:00 AM	93.91	532.61	6.46	634.69	5.55	7.70	11,999.94	8,688.91	-0.46
2/12/2023 10:26:00 PM	92.51	532.57	6.47	634.68	5.55	7.70	12,001.13	8,688.55	-0.46
2/13/2023 10:26:00 AM	92.31	532.58	6.47	634.68	5.55	7.70	12,000.50	8,688.59	-0.46
2/13/2023 10:26:00 PM	93.75	532.56	6.47	634.68	5.55	7.70	12,001.83	8,689.77	-0.46
2/14/2023 10:26:00 AM	94.88	532.62	6.46	634.69	5.55	7.70	12,001.15	8,689.80	-0.47
2/14/2023 10:26:00 PM	95.01	532.59	6.47	634.68	5.55	7.70	12,001.58	8,689.27	-0.47
2/15/2023 10:27:00 PM	94.89	507.32	9.02	632.13	5.55	7.53	11,670.48	8,449.27	-0.26
2/16/2023 10:27:00 AM	94.05	507.87	8.96	632.19	5.55	7.53	11,672.63	8,450.39	-0.27
2/16/2023 10:27:00 PM	93.90	508.63	8.88	632.27	5.55	7.52	11,674.43	8,451.21	-0.28
2/17/2023 10:27:00 AM	94.37	509.25	8.82	632.33	5.54	7.52	11,675.86	8,452.08	-0.28
2/17/2023 10:27:00 PM	93.86	509.91	8.75	632.40	5.55	7.51	11,674.78	8,451.42	-0.28
2/18/2023 10:27:00 AM	94.11	510.41	8.70	632.45	5.54	7.51	11,674.90	8,451.14	-0.28
2/18/2023 10:27:00 PM	94.47	510.90	8.65	632.50	5.54	7.51	11,676.75	8,452.25	-0.28
2/19/2023 10:27:00 AM	93.31	511.45	8.60	632.55	5.54	7.51	11,677.66	8,453.14	-0.29
2/19/2023 10:27:00 PM	94.04	512.00	8.54	632.61	5.54	7.50	11,677.02	8,451.90	-0.29
2/20/2023 10:27:00 AM	94.78	512.57	8.48	632.67	5.54	7.51	11,677.54	8,453.30	-0.29
2/20/2023 10:27:00 PM	94.12	513.07	8.43	632.72	5.54	7.51	11,679.52	8,454.41	-0.29
2/21/2023 10:27:00 AM	95.11	513.48	8.39	632.76	5.54	7.51	11,679.47	8,454.58	-0.29
2/21/2023 10:27:00 PM	95.76	513.95	8.34	632.81	5.55	7.51	11,679.54	8,454.87	-0.29
2/22/2023 10:27:00 AM	96.25	514.40	8.30	632.85	5.54	7.51	11,679.76	8,454.82	-0.29
2/22/2023 10:27:00 PM	96.40	514.82	8.25	632.90	5.54	7.51	11,680.26	8,455.27	-0.29
2/23/2023 10:27:00 AM	96.71	515.26	8.21	632.94	5.54	7.51	11,680.98	8,455.09	-0.29
2/23/2023 10:27:00 PM	96.36	515.72	8.16	632.99	5.54	7.51	11,680.49	8,455.32	-0.29
2/24/2023 10:27:00 AM	95.16	516.13	8.12	633.03	5.54	7.51	11,682.62	8,456.85	-0.29
2/24/2023 10:27:00 PM	93.96	516.46	8.09	633.06	5.54	7.51	11,681.44	8,455.37	-0.29
2/25/2023 10:27:00 AM	93.82	516.85	8.05	633.10	5.55	7.52	11,683.46	8,457.82	-0.29
2/25/2023 10:27:00 PM	92.99	517.27	8.01	633.14	5.55	7.51	11,684.27	8,458.71	-0.29
2/26/2023 10:27:00 AM	92.38	517.64	7.97	633.18	5.55	7.52	11,683.93	8,458.36	-0.30
2/26/2023 10:27:00 PM	92.72	518.03	7.93	633.22	5.55	7.52	11,683.77	8,458.55	-0.30
2/27/2023 10:27:00 AM	93.40	518.33	7.90	633.25	5.55	7.52	11,685.10	8,459.40	-0.30
2/27/2023 10:27:00 PM	93.65	518.64	7.87	633.28	5.55	7.52	11,685.62	8,459.92	-0.30
2/28/2023 10:27:00 AM	94.06	518.93	7.84	633.31	5.55	7.51	11,685.55	8,460.20	-0.30
2/28/2023 10:27:00 PM	94.43	519.22	7.81	633.34	5.55	7.52	11,687.02	8,460.60	-0.30
3/1/2023 10:27:00 AM	93.87	519.58	7.77	633.38	5.55	7.52	11,687.69	8,461.74	-0.30
3/1/2023 10:27:00 PM	92.87	519.88	7.74	633.41	5.55	7.52	11,688.52	8,462.06	-0.30
3/2/2023 10:27:00 AM	92.31	520.13	7.72	633.43	5.55	7.52	11,688.37	8,461.35	-0.30
3/2/2023 10:27:00 PM	92.83	520.35	7.70	633.45	5.55	7.52	11,689.75	8,462.27	-0.30
3/3/2023 10:27:00 AM	93.19	520.72	7.66	633.49	5.55	7.52	11,690.15	8,463.12	-0.30
3/3/2023 10:27:00 PM	93.64	520.86	7.64	633.51	5.55	7.52	11,690.47	8,462.80	-0.30
3/4/2023 10:27:00 AM	94.46	521.21	7.61	633.54	5.55	7.52	11,691.33	8,463.50	-0.30
3/4/2023 10:27:00 PM	95.26	521.43	7.59	633.56	5.55	7.52	11,691.76	8,464.49	-0.30
3/5/2023 10:27:00 AM	95.96	521.70	7.56	633.59	5.55	7.52	11,692.15	8,465.37	-0.30
3/5/2023 10:27:00 PM	96.12	521.88	7.54	633.61	5.54	7.51	11,693.52	8,464.53	-0.30

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/6/2023 10:27:00 AM	96.18	522.17	7.51	633.64	5.54	7.52	11,693.85	8,464.83	-0.30
3/6/2023 10:27:00 PM	96.04	522.36	7.49	633.66	5.55	7.51	11,694.93	8,466.52	-0.30
3/7/2023 10:27:00 AM	95.98	522.51	7.48	633.67	5.55	7.52	11,697.23	8,468.88	-0.30
3/7/2023 10:27:00 PM	96.31	522.86	7.44	633.71	5.55	7.52	11,696.41	8,467.54	-0.30
3/8/2023 10:27:00 AM	96.63	522.95	7.43	633.72	5.55	7.52	11,696.45	8,468.25	-0.30
3/8/2023 10:27:00 PM	96.67	523.26	7.40	633.75	5.55	7.52	11,699.05	8,470.05	-0.30
3/9/2023 10:27:00 AM	96.06	523.35	7.39	633.76	5.55	7.52	11,698.37	8,469.52	-0.30
3/9/2023 10:27:00 PM	95.18	523.71	7.35	633.80	5.55	7.52	11,698.65	8,469.35	-0.30
3/10/2023 10:27:00 AM	94.65	523.81	7.34	633.81	5.55	7.52	11,699.69	8,470.51	-0.30
3/10/2023 10:27:00 PM	94.90	523.97	7.33	633.82	5.55	7.52	11,700.94	8,471.75	-0.30
3/11/2023 10:27:00 AM	95.43	524.21	7.30	633.85	5.55	7.52	11,701.41	8,471.40	-0.30
3/11/2023 10:27:00 PM	95.59	524.37	7.29	633.86	5.55	7.52	11,702.40	8,472.83	-0.30
3/12/2023 11:27:00 AM	95.48	524.56	7.27	633.88	5.55	7.52	11,702.84	8,472.99	-0.30
3/12/2023 11:27:00 PM	94.92	524.82	7.24	633.91	5.55	7.52	11,704.16	8,473.89	-0.30
3/13/2023 11:27:00 AM	94.01	525.04	7.22	633.93	5.55	7.52	11,705.90	8,475.25	-0.30
3/13/2023 11:27:00 PM	93.34	525.09	7.21	633.94	5.55	7.53	11,705.70	8,474.97	-0.30
3/14/2023 11:27:00 AM	93.70	525.13	7.21	633.94	5.55	7.52	11,706.93	8,476.06	-0.30
3/14/2023 11:27:00 PM	93.89	525.41	7.18	633.97	5.55	7.53	11,706.00	8,475.20	-0.30
3/15/2023 11:27:00 AM	94.51	525.56	7.17	633.98	5.55	7.52	11,705.78	8,474.94	-0.30
3/15/2023 11:27:00 PM	95.09	525.67	7.16	633.99	5.54	7.52	11,704.74	8,472.65	-0.30
3/16/2023 11:27:00 AM	95.62	525.80	7.14	634.01	5.55	7.52	11,704.37	8,474.25	-0.30
3/16/2023 11:27:00 PM	95.74	525.99	7.12	634.03	5.55	7.52	11,706.00	8,474.23	-0.30
3/17/2023 11:27:00 AM	95.64	525.97	7.13	634.02	5.55	7.53	11,706.52	8,475.78	-0.30
3/17/2023 11:27:00 PM	95.23	526.18	7.10	634.05	5.55	7.52	11,705.03	8,475.15	-0.30
3/18/2023 11:27:00 AM	95.08	526.34	7.09	634.06	5.55	7.52	11,707.62	8,476.21	-0.30
3/18/2023 11:27:00 PM	94.90	526.50	7.07	634.08	5.55	7.52	11,705.30	8,474.57	-0.30
3/19/2023 11:27:00 AM	94.79	526.51	7.07	634.08	5.55	7.53	11,706.70	8,475.93	-0.30
3/19/2023 11:27:00 PM	94.55	526.67	7.05	634.10	5.55	7.53	11,707.13	8,475.99	-0.30
3/20/2023 11:27:00 AM	94.43	526.80	7.04	634.11	5.55	7.53	11,707.20	8,476.40	-0.30
3/20/2023 11:27:00 PM	94.40	526.90	7.03	634.12	5.55	7.53	11,707.93	8,476.41	-0.31
3/21/2023 11:27:00 AM	94.70	527.06	7.02	634.13	5.55	7.53	11,707.71	8,476.51	-0.31
3/21/2023 11:27:00 PM	94.48	527.17	7.00	634.15	5.55	7.52	11,707.44	8,476.15	-0.31
3/22/2023 11:27:00 AM	94.01	527.26	6.99	634.16	5.55	7.53	11,707.87	8,476.53	-0.31
3/22/2023 11:27:00 PM	93.79	527.33	6.99	634.16	5.55	7.53	11,707.16	8,476.19	-0.31
3/23/2023 11:27:00 AM	93.84	527.51	6.97	634.18	5.55	7.53	11,708.92	8,477.27	-0.31
3/23/2023 11:27:00 PM	94.10	527.61	6.96	634.19	5.55	7.53	11,707.73	8,477.12	-0.31
3/24/2023 11:27:00 AM	94.77	527.77	6.94	634.21	5.55	7.53	11,708.22	8,476.31	-0.31
3/24/2023 11:27:00 PM	94.79	527.68	6.95	634.20	5.55	7.53	11,707.72	8,476.41	-0.31
3/25/2023 11:27:00 AM	94.72	527.77	6.94	634.21	5.55	7.53	11,708.09	8,476.60	-0.31
3/25/2023 11:27:00 PM	94.99	527.99	6.92	634.23	5.55	7.53	11,707.43	8,476.43	-0.31
3/26/2023 11:27:00 AM	95.51	528.08	6.91	634.24	5.55	7.53	11,708.24	8,476.77	-0.31
3/26/2023 11:27:00 PM	96.01	528.20	6.90	634.25	5.55	7.53	11,707.84	8,476.96	-0.31
3/27/2023 11:27:00 AM	96.15	528.14	6.91	634.24	5.55	7.53	11,707.63	8,476.17	-0.31
3/27/2023 11:27:00 PM	95.74	528.30	6.89	634.26	5.55	7.53	11,708.41	8,476.98	-0.31
3/28/2023 11:27:00 AM	95.45	528.34	6.89	634.26	5.55	7.53	11,708.10	8,476.95	-0.31
3/28/2023 11:27:00 PM	94.90	528.51	6.87	634.28	5.55	7.53	11,707.27	8,476.67	-0.31
3/29/2023 11:27:00 AM	94.50	528.56	6.86	634.29	5.55	7.53	11,708.21	8,476.99	-0.31
3/29/2023 11:27:00 PM	94.59	528.59	6.86	634.29	5.55	7.53	11,707.75	8,476.57	-0.31
3/30/2023 11:27:00 AM	94.41	528.65	6.85	634.30	5.55	7.53	11,708.78	8,477.36	-0.31
3/30/2023 11:27:00 PM	93.95	528.77	6.84	634.31	5.55	7.53	11,707.57	8,476.28	-0.31
3/31/2023 11:27:00 AM	93.76	528.81	6.84	634.31	5.55	7.53	11,708.34	8,476.57	-0.31
3/31/2023 11:27:00 PM	93.55	528.93	6.83	634.32	5.55	7.53	11,707.41	8,476.32	-0.31
4/1/2023 11:27:00 AM	93.34	528.99	6.82	634.33	5.55	7.53	11,708.89	8,477.56	-0.31
4/1/2023 11:27:00 PM	93.37	529.07	6.81	634.34	5.55	7.53	11,708.01	8,476.26	-0.31
4/2/2023 11:27:00 AM	93.87	529.12	6.81	634.34	5.55	7.53	11,708.97	8,477.03	-0.31
4/2/2023 11:27:00 PM	94.27	529.10	6.81	634.34	5.55	7.53	11,708.45	8,476.89	-0.31
4/3/2023 11:27:00 AM	94.61	529.17	6.80	634.35	5.55	7.53	11,709.82	8,478.14	-0.31
4/3/2023 11:27:00 PM	94.78	529.26	6.79	634.36	5.55	7.53	11,708.96	8,477.03	-0.31
4/4/2023 11:27:00 AM	95.10	529.38	6.78	634.37	5.55	7.53	11,709.42	8,477.47	-0.31
4/4/2023 11:27:00 PM	94.98	529.40	6.78	634.37	5.55	7.53	11,710.56	8,478.72	-0.31
4/5/2023 11:27:00 AM	94.74	529.49	6.77	634.38	5.55	7.53	11,709.59	8,477.87	-0.31
4/5/2023 11:27:00 PM	94.59	529.47	6.77	634.38	5.55	7.53	11,710.30	8,478.70	-0.32
4/6/2023 11:28:00 AM	94.72	529.57	6.76	634.39	5.55	7.53	11,711.32	8,479.28	-0.32
4/6/2023 11:28:00 PM	94.48	529.61	6.76	634.39	5.55	7.53	11,710.29	8,478.70	-0.32
4/7/2023 11:28:00 AM	93.93	529.69	6.75	634.40	5.55	7.53	11,712.22	8,479.25	-0.32
4/7/2023 11:28:00 PM	93.49	529.72	6.75	634.40	5.55	7.53	11,712.49	8,479.66	-0.32
4/8/2023 11:28:00 AM	93.66	529.79	6.74	634.41	5.55	7.53	11,712.82	8,480.20	-0.32
4/8/2023 11:28:00 PM	93.81	529.87	6.73	634.42	5.55	7.53	11,712.10	8,479.64	-0.32
4/9/2023 11:28:00 AM	94.30	529.94	6.72	634.43	5.55	7.53	11,711.94	8,479.24	-0.32
4/9/2023 11:28:00 PM	93.20	530.06	6.71	634.44	5.55	7.53	11,712.27	8,479.90	-0.32

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/10/2023 11:28:00 AM	94.36	530.02	6.72	634.43	5.55	7.53	11,713.59	8,480.65	-0.32
4/10/2023 11:28:00 PM	94.19	530.09	6.71	634.44	5.55	7.53	11,716.42	8,482.94	-0.32
4/11/2023 11:28:00 AM	93.89	530.15	6.70	634.45	5.55	7.54	11,717.12	8,483.16	-0.32
4/11/2023 11:28:00 PM	94.02	530.18	6.70	634.45	5.55	7.54	11,716.46	8,482.97	-0.33
4/12/2023 11:28:00 AM	94.24	530.23	6.69	634.46	5.55	7.54	11,716.63	8,483.12	-0.33
4/12/2023 11:28:00 PM	94.27	530.21	6.70	634.45	5.55	7.54	11,716.48	8,482.76	-0.33
4/13/2023 11:28:00 AM	94.30	530.23	6.69	634.46	5.55	7.54	11,716.42	8,482.46	-0.33
4/13/2023 11:28:00 PM	94.35	530.37	6.68	634.47	5.55	7.54	11,716.28	8,482.32	-0.33
4/14/2023 11:28:00 AM	94.53	530.53	6.66	634.49	5.55	7.54	11,717.20	8,483.18	-0.33
4/14/2023 11:28:00 PM	94.87	530.49	6.67	634.48	5.55	7.54	11,715.71	8,481.79	-0.33
4/15/2023 11:28:00 AM	95.02	530.39	6.68	634.47	5.55	7.54	11,715.82	8,482.02	-0.33
4/15/2023 11:28:00 PM	94.76	530.45	6.67	634.48	5.55	7.54	11,717.45	8,482.93	-0.34
4/16/2023 11:28:00 AM	94.42	530.56	6.66	634.49	5.55	7.54	11,717.79	8,483.37	-0.34
4/16/2023 11:28:00 PM	93.57	530.55	6.66	634.49	5.55	7.54	11,717.21	8,483.00	-0.34
4/17/2023 11:28:00 AM	93.14	530.61	6.66	634.49	5.55	7.54	11,716.84	8,482.92	-0.34
4/17/2023 11:28:00 PM	93.48	530.66	6.65	634.50	5.55	7.54	11,717.55	8,483.13	-0.34
4/18/2023 11:28:00 AM	93.95	530.58	6.66	634.49	5.55	7.54	11,717.44	8,482.95	-0.34
4/18/2023 11:28:00 PM	94.33	530.70	6.65	634.50	5.55	7.54	11,719.04	8,484.21	-0.35
4/19/2023 11:28:00 AM	95.07	530.73	6.64	634.51	5.55	7.54	11,719.30	8,484.14	-0.35
4/19/2023 11:28:00 PM	95.70	530.72	6.64	634.51	5.55	7.54	11,719.29	8,484.71	-0.35
4/20/2023 11:28:00 AM	96.13	530.73	6.64	634.51	5.55	7.54	11,719.98	8,484.47	-0.35
4/20/2023 11:28:00 PM	95.99	530.67	6.65	634.50	5.55	7.54	11,720.75	8,485.53	-0.35
4/21/2023 11:28:00 AM	96.24	530.81	6.64	634.51	5.55	7.54	11,720.60	8,485.65	-0.35
4/21/2023 11:28:00 PM	95.98	530.90	6.63	634.52	5.55	7.54	11,719.90	8,484.82	-0.36
4/22/2023 11:28:00 AM	95.42	530.94	6.62	634.53	5.55	7.55	11,720.61	8,485.63	-0.36
4/22/2023 11:28:00 PM	94.77	530.95	6.62	634.53	5.55	7.55	11,719.94	8,484.58	-0.36
4/23/2023 11:28:00 AM	94.37	530.98	6.62	634.53	5.55	7.55	11,721.15	8,485.75	-0.36
4/23/2023 11:28:00 PM	94.05	531.05	6.61	634.54	5.55	7.55	11,721.89	8,486.40	-0.37
4/24/2023 11:28:00 AM	94.33	531.05	6.61	634.54	5.55	7.55	11,721.18	8,486.09	-0.37
4/24/2023 11:28:00 PM	94.60	531.08	6.61	634.54	5.55	7.55	11,722.07	8,486.72	-0.38
4/25/2023 11:28:00 AM	94.32	531.05	6.61	634.54	5.55	7.55	11,723.11	8,487.03	-0.39
4/25/2023 11:28:00 PM	94.73	531.12	6.60	634.55	5.55	7.55	11,722.81	8,487.09	-0.41
4/26/2023 11:28:00 AM	94.53	531.19	6.60	634.55	5.55	7.55	11,722.46	8,486.37	-0.44
4/26/2023 11:28:00 PM	94.16	531.30	6.59	634.56	5.55	7.55	11,722.41	8,486.54	-0.47
4/27/2023 11:28:00 AM	95.16	531.24	6.59	634.56	5.55	7.55	11,723.22	8,487.83	-0.48
4/27/2023 11:28:00 PM	94.84	531.26	6.59	634.56	5.55	7.55	11,723.96	8,487.69	-0.48
4/28/2023 11:28:00 AM	95.19	531.28	6.59	634.56	5.55	7.55	11,724.11	8,487.47	-0.48
4/28/2023 11:28:00 PM	95.32	531.27	6.59	634.56	5.55	7.55	11,724.90	8,487.95	-0.49
4/29/2023 11:28:00 AM	95.51	531.42	6.57	634.58	5.55	7.55	11,724.67	8,488.07	-0.49
4/29/2023 11:28:00 PM	95.08	531.27	6.59	634.56	5.55	7.55	11,724.30	8,488.16	-0.49
4/30/2023 11:28:00 AM	94.78	531.41	6.57	634.58	5.55	7.55	11,724.86	8,488.33	-0.49
4/30/2023 11:28:00 PM	94.42	531.45	6.57	634.58	5.55	7.55	11,725.54	8,488.39	-0.49
5/1/2023 11:28:00 AM	94.21	531.36	6.58	634.57	5.55	7.56	11,726.00	8,488.83	-0.49
5/1/2023 11:28:00 PM	94.14	531.41	6.57	634.58	5.55	7.56	11,726.63	8,489.45	-0.49
5/2/2023 11:28:00 AM	94.62	531.46	6.57	634.58	5.55	7.56	11,726.59	8,489.89	-0.49
5/2/2023 11:28:00 PM	94.47	531.53	6.56	634.59	5.54	7.56	11,727.37	8,489.08	-0.49
5/3/2023 11:28:00 AM	94.20	531.49	6.57	634.58	5.55	7.56	11,728.19	8,490.13	-0.49
5/3/2023 11:28:00 PM	93.98	531.48	6.57	634.58	5.54	7.55	11,727.96	8,489.77	-0.49
5/4/2023 11:28:00 AM	94.26	531.54	6.56	634.59	5.55	7.55	11,728.29	8,490.57	-0.49
5/4/2023 11:28:00 PM	94.42	531.54	6.56	634.59	5.54	7.56	11,729.97	8,490.59	-0.49
5/5/2023 11:28:00 AM	94.77	531.59	6.56	634.59	5.54	7.56	11,731.68	8,492.26	-0.49
5/5/2023 11:28:00 PM	94.95	531.53	6.56	634.59	5.54	7.56	11,733.25	8,493.50	-0.49
5/6/2023 11:28:00 AM	95.02	531.65	6.55	634.60	5.54	7.56	11,733.91	8,493.56	-0.49
5/6/2023 11:28:00 PM	94.85	531.62	6.55	634.60	5.54	7.56	11,734.44	8,494.22	-0.50
5/7/2023 11:28:00 AM	94.68	531.75	6.54	634.61	5.54	7.56	11,735.31	8,494.50	-0.50
5/7/2023 11:28:00 PM	94.61	531.65	6.55	634.60	5.54	7.56	11,734.80	8,493.98	-0.50
5/8/2023 11:28:00 AM	94.59	531.73	6.54	634.61	5.54	7.56	11,735.81	8,495.34	-0.50
5/8/2023 11:28:00 PM	94.59	531.62	6.55	634.60	5.55	7.57	11,728.15	8,490.80	-0.50
5/9/2023 8:54:00 PM	94.80	515.99	8.14	633.01	5.54	7.63	11,780.54	8,526.79	-0.22
5/10/2023 8:54:00 AM	94.94	516.53	8.08	633.07	5.54	7.62	11,781.46	8,528.14	-0.23
5/10/2023 8:54:00 PM	94.92	517.05	8.03	633.12	5.55	7.62	11,781.76	8,529.33	-0.24
5/11/2023 8:54:00 AM	95.22	517.42	7.99	633.16	5.55	7.62	11,783.41	8,530.39	-0.24
5/11/2023 8:54:00 PM	95.35	517.82	7.95	633.20	5.55	7.62	11,784.12	8,530.63	-0.24
5/12/2023 8:54:00 AM	95.84	518.19	7.92	633.23	5.55	7.62	11,786.03	8,531.93	-0.24
5/12/2023 8:54:00 PM	95.93	518.53	7.88	633.27	5.55	7.62	11,786.53	8,533.46	-0.24
5/13/2023 8:54:00 AM	96.31	518.94	7.84	633.31	5.55	7.62	11,787.87	8,533.72	-0.24
5/13/2023 8:54:00 PM	96.14	519.23	7.81	633.34	5.55	7.62	11,788.65	8,534.76	-0.24
5/14/2023 8:54:00 AM	96.38	519.55	7.78	633.37	5.55	7.63	11,789.69	8,535.07	-0.24
5/14/2023 8:54:00 PM	95.87	519.89	7.74	633.41	5.55	7.62	11,790.17	8,535.53	-0.24
5/15/2023 8:54:00 AM	95.57	520.07	7.72	633.43	5.55	7.63	11,791.95	8,537.31	-0.24

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 8:54:00 PM	94.59	520.44	7.69	633.46	5.55	7.63	11,793.06	8,538.26	-0.24
5/16/2023 8:54:00 AM	95.14	520.75	7.66	633.49	5.55	7.63	11,793.32	8,538.08	-0.24
5/16/2023 8:54:00 PM	95.23	520.96	7.63	633.52	5.55	7.63	11,794.63	8,539.41	-0.24
5/17/2023 8:54:00 AM	95.32	521.39	7.59	633.56	5.55	7.63	11,795.61	8,540.36	-0.25
5/17/2023 8:54:00 PM	95.30	521.59	7.57	633.58	5.55	7.63	11,797.40	8,541.04	-0.25
5/18/2023 8:54:00 AM	95.59	521.75	7.55	633.60	5.55	7.64	11,799.01	8,542.46	-0.25
5/18/2023 8:54:00 PM	95.14	522.02	7.53	633.62	5.55	7.64	11,800.19	8,543.29	-0.25
5/19/2023 8:54:00 AM	94.77	522.32	7.50	633.65	5.55	7.64	11,802.26	8,545.02	-0.25
5/19/2023 8:54:00 PM	94.72	522.55	7.47	633.68	5.55	7.64	11,803.46	8,545.91	-0.25
5/20/2023 8:54:00 AM	95.25	522.82	7.45	633.70	5.55	7.64	11,805.20	8,547.04	-0.25
5/20/2023 8:54:00 PM	95.03	522.96	7.43	633.72	5.55	7.64	11,806.54	8,548.40	-0.25
5/21/2023 8:54:00 AM	94.81	523.22	7.41	633.74	5.55	7.64	11,808.17	8,549.53	-0.25
5/21/2023 8:54:00 PM	94.26	523.43	7.38	633.77	5.55	7.64	11,809.59	8,550.49	-0.25
5/22/2023 8:54:00 AM	94.02	523.55	7.37	633.78	5.55	7.65	11,811.73	8,551.51	-0.25
5/22/2023 8:54:00 PM	93.88	523.80	7.35	633.80	5.55	7.64	11,813.41	8,553.00	-0.25
5/23/2023 8:54:00 AM	94.18	524.12	7.31	633.84	5.55	7.64	11,814.63	8,554.51	-0.25
5/23/2023 8:54:00 PM	94.61	524.24	7.30	633.85	5.55	7.65	11,815.47	8,555.23	-0.25
5/24/2023 8:54:00 AM	94.79	524.46	7.28	633.87	5.55	7.65	11,818.50	8,556.72	-0.25
5/24/2023 8:54:00 PM	94.69	524.59	7.27	633.88	5.55	7.65	11,819.27	8,557.73	-0.25
5/25/2023 8:54:00 AM	95.11	524.69	7.26	633.89	5.55	7.65	11,821.33	8,559.60	-0.25
5/25/2023 8:54:00 PM	95.06	524.88	7.24	633.91	5.55	7.65	11,822.78	8,560.25	-0.25
5/26/2023 8:54:00 AM	95.02	525.02	7.22	633.93	5.55	7.65	11,824.21	8,560.94	-0.25
5/26/2023 8:54:00 PM	94.62	525.28	7.20	633.95	5.55	7.65	11,826.41	8,562.53	-0.25
5/27/2023 8:54:00 AM	94.57	525.39	7.19	633.96	5.55	7.65	11,826.89	8,563.17	-0.25
5/27/2023 8:54:00 PM	94.14	525.49	7.18	633.97	5.55	7.65	11,829.64	8,564.79	-0.25
5/28/2023 8:54:00 AM	93.99	525.75	7.15	634.00	5.55	7.65	11,831.14	8,566.06	-0.25
5/28/2023 8:54:00 PM	93.90	525.88	7.14	634.01	5.55	7.65	11,831.79	8,566.36	-0.25
5/29/2023 8:54:00 AM	94.00	526.04	7.12	634.03	5.55	7.65	11,832.96	8,567.68	-0.25
5/29/2023 8:54:00 PM	93.99	526.15	7.11	634.04	5.55	7.65	11,832.68	8,567.34	-0.25
5/30/2023 8:54:00 AM	94.13	526.29	7.09	634.06	5.56	7.65	11,832.46	8,567.78	-0.25
5/30/2023 8:54:00 PM	94.03	526.45	7.08	634.07	5.55	7.65	11,833.16	8,567.76	-0.25
5/31/2023 8:54:00 AM	94.36	526.48	7.08	634.07	5.55	7.65	11,832.52	8,567.47	-0.25
5/31/2023 8:54:00 PM	94.26	526.74	7.05	634.10	5.55	7.66	11,834.10	8,567.79	-0.26
6/1/2023 8:54:00 AM	94.71	526.83	7.04	634.11	5.55	7.66	11,832.50	8,567.14	-0.26
6/1/2023 8:54:00 PM	94.92	526.93	7.03	634.12	5.55	7.66	11,833.98	8,568.18	-0.26
6/2/2023 8:54:00 AM	95.14	527.06	7.02	634.13	5.56	7.66	11,832.72	8,567.98	-0.26
6/2/2023 8:54:00 PM	95.17	527.19	7.00	634.15	5.55	7.66	11,832.98	8,567.30	-0.26
6/3/2023 8:54:00 AM	95.33	527.28	6.99	634.16	5.56	7.66	11,833.35	8,568.43	-0.26
6/3/2023 8:54:00 PM	95.09	527.40	6.98	634.17	5.55	7.66	11,834.12	8,568.69	-0.26
6/4/2023 8:54:00 AM	94.82	527.50	6.97	634.18	5.56	7.66	11,833.53	8,568.83	-0.26
6/4/2023 8:54:00 PM	94.56	527.61	6.96	634.19	5.55	7.66	11,833.40	8,568.15	-0.26
6/5/2023 8:54:00 AM	94.83	527.63	6.96	634.19	5.55	7.66	11,834.52	8,568.91	-0.26
6/5/2023 8:54:00 PM	94.81	527.68	6.95	634.20	5.55	7.66	11,835.01	8,568.83	-0.26
6/6/2023 8:54:00 AM	95.12	527.98	6.92	634.23	5.55	7.66	11,833.92	8,568.77	-0.26
6/6/2023 8:54:00 PM	94.59	527.94	6.93	634.22	5.55	7.66	11,833.77	8,568.38	-0.26
6/7/2023 8:54:00 AM	94.60	528.06	6.91	634.24	5.55	7.66	11,834.54	8,568.98	-0.26
6/7/2023 8:54:00 PM	94.53	528.16	6.90	634.25	5.55	7.66	11,835.46	8,569.65	-0.26
6/8/2023 8:54:00 AM	95.05	528.20	6.90	634.25	5.55	7.66	11,835.84	8,569.04	-0.26
6/8/2023 8:54:00 PM	95.02	528.45	6.88	634.27	5.55	7.66	11,836.22	8,569.42	-0.26
6/9/2023 8:54:00 AM	95.15	528.39	6.88	634.27	5.55	7.66	11,836.28	8,569.86	-0.26
6/9/2023 8:54:00 PM	94.82	528.56	6.86	634.29	5.55	7.66	11,835.76	8,569.53	-0.27
6/10/2023 8:54:00 AM	94.77	528.57	6.86	634.29	5.55	7.66	11,837.17	8,570.17	-0.27
6/10/2023 8:54:00 PM	94.32	528.63	6.86	634.29	5.55	7.66	11,837.26	8,570.44	-0.27
6/11/2023 8:55:00 AM	94.58	528.84	6.84	634.31	5.55	7.66	11,837.02	8,569.90	-0.27
6/11/2023 8:55:00 PM	94.71	528.76	6.84	634.31	5.55	7.66	11,837.15	8,570.29	-0.27
6/12/2023 8:55:00 AM	94.93	528.79	6.84	634.31	5.55	7.67	11,837.66	8,570.89	-0.27
6/12/2023 8:55:00 PM	94.48	528.95	6.82	634.33	5.55	7.66	11,837.32	8,570.66	-0.27
6/13/2023 8:55:00 AM	94.10	528.95	6.83	634.32	5.55	7.66	11,837.99	8,571.30	-0.27
6/13/2023 8:55:00 PM	93.31	529.09	6.81	634.34	5.55	7.66	11,838.22	8,571.76	-0.27
6/14/2023 8:55:00 AM	93.27	529.14	6.81	634.34	5.55	7.67	11,839.48	8,571.75	-0.27
6/14/2023 8:55:00 PM	93.53	529.29	6.79	634.36	5.55	7.67	11,839.32	8,571.78	-0.27
6/15/2023 8:55:00 AM	94.09	529.32	6.79	634.36	5.55	7.67	11,839.17	8,571.49	-0.27
6/15/2023 8:55:00 PM	94.64	529.36	6.78	634.37	5.55	7.67	11,839.54	8,571.89	-0.27
6/16/2023 8:55:00 AM	94.32	529.43	6.78	634.37	5.55	7.67	11,840.19	8,572.64	-0.28
6/16/2023 8:55:00 PM	94.10	529.52	6.77	634.38	5.55	7.67	11,840.22	8,572.92	-0.28
6/17/2023 8:55:00 AM	94.20	529.62	6.76	634.39	5.55	7.67	11,841.21	8,574.07	-0.28
6/17/2023 8:55:00 PM	93.96	529.66	6.75	634.40	5.55	7.67	11,840.53	8,573.15	-0.28
6/18/2023 8:55:00 AM	93.51	529.70	6.75	634.40	5.55	7.67	11,841.05	8,573.14	-0.28
6/18/2023 8:55:00 PM	93.24	529.83	6.73	634.42	5.55	7.67	11,841.04	8,573.47	-0.28
6/19/2023 8:55:00 AM	92.81	529.87	6.73	634.42	5.55	7.67	11,842.10	8,574.27	-0.28

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 8:55:00 PM	93.52	529.89	6.73	634.42	5.55	7.67	11,842.07	8,574.60	-0.29
6/20/2023 8:55:00 AM	94.29	529.94	6.72	634.43	5.55	7.67	11,841.70	8,573.54	-0.29
6/20/2023 8:55:00 PM	94.82	530.03	6.71	634.44	5.55	7.67	11,841.85	8,574.53	-0.29
6/21/2023 8:55:00 AM	94.83	529.99	6.72	634.43	5.55	7.67	11,842.15	8,574.69	-0.29
6/21/2023 8:55:00 PM	94.86	530.12	6.71	634.44	5.55	7.67	11,843.34	8,574.71	-0.29
6/22/2023 8:55:00 AM	94.91	530.12	6.71	634.44	5.55	7.67	11,844.66	8,575.64	-0.30
6/22/2023 8:55:00 PM	94.65	530.31	6.69	634.46	5.55	7.67	11,845.51	8,576.85	-0.30
6/23/2023 8:55:00 AM	94.69	530.34	6.68	634.47	5.55	7.67	11,845.93	8,577.21	-0.30
6/23/2023 8:55:00 PM	94.61	530.43	6.67	634.48	5.55	7.67	11,847.59	8,578.15	-0.31
6/24/2023 8:55:00 AM	94.70	530.37	6.68	634.47	5.55	7.67	11,847.66	8,578.26	-0.31
6/24/2023 8:55:00 PM	94.49	530.43	6.67	634.48	5.55	7.67	11,848.46	8,578.51	-0.31
6/25/2023 8:55:00 AM	94.80	530.52	6.67	634.48	5.55	7.67	11,848.95	8,579.05	-0.32
6/25/2023 8:55:00 PM	94.87	530.59	6.66	634.49	5.55	7.67	11,848.80	8,578.88	-0.33
6/26/2023 8:55:00 AM	94.69	530.59	6.66	634.49	5.55	7.67	11,847.98	8,578.19	-0.33
6/26/2023 8:55:00 PM	94.23	530.66	6.65	634.50	5.55	7.67	11,849.49	8,579.28	-0.34
6/27/2023 8:55:00 AM	94.33	530.76	6.64	634.51	5.55	7.67	11,849.27	8,579.19	-0.36
6/27/2023 8:55:00 PM	94.33	530.74	6.64	634.51	5.55	7.67	11,849.94	8,580.19	-0.39
6/28/2023 8:55:00 AM	94.59	530.79	6.64	634.51	5.55	7.67	11,848.69	8,578.41	-0.44
6/28/2023 8:55:00 PM	94.48	530.81	6.64	634.51	5.55	7.67	11,850.22	8,580.49	-0.45
6/29/2023 8:55:00 AM	94.58	530.84	6.63	634.52	5.55	7.67	11,849.23	8,579.57	-0.45
6/29/2023 8:55:00 PM	94.52	530.87	6.63	634.52	5.55	7.67	11,849.35	8,578.90	-0.46
6/30/2023 8:55:00 AM	94.71	530.94	6.62	634.53	5.55	7.67	11,850.38	8,580.22	-0.46
6/30/2023 8:55:00 PM	94.57	530.95	6.62	634.53	5.55	7.67	11,850.94	8,580.19	-0.46
7/1/2023 8:55:00 AM	94.51	531.00	6.62	634.53	5.55	7.67	11,850.01	8,579.93	-0.46
7/1/2023 8:55:00 PM	94.31	531.01	6.62	634.53	5.55	7.67	11,851.06	8,580.69	-0.46
7/2/2023 8:55:00 AM	94.41	531.09	6.61	634.54	5.56	7.67	11,850.52	8,580.78	-0.46
7/2/2023 8:55:00 PM	94.65	531.12	6.61	634.54	5.55	7.67	11,850.14	8,579.98	-0.47
7/3/2023 8:55:00 AM	94.62	531.13	6.60	634.55	5.55	7.67	11,851.34	8,580.74	-0.47
7/3/2023 8:55:00 PM	95.31	531.15	6.60	634.55	5.55	7.67	11,851.13	8,581.19	-0.47
7/4/2023 8:55:00 AM	95.53	531.23	6.59	634.56	5.55	7.67	11,851.93	8,581.66	-0.47
7/4/2023 8:55:00 PM	95.28	531.28	6.59	634.56	5.55	7.67	11,851.73	8,581.07	-0.47
7/5/2023 8:55:00 AM	95.01	531.33	6.58	634.57	5.55	7.67	11,851.90	8,580.73	-0.47
7/5/2023 8:55:00 PM	94.70	531.28	6.59	634.56	5.55	7.67	11,852.10	8,581.26	-0.47
7/6/2023 8:55:00 AM	94.87	531.41	6.58	634.57	5.55	7.67	11,851.95	8,581.70	-0.47
7/6/2023 8:55:00 PM	94.86	531.33	6.58	634.57	5.55	7.68	11,852.34	8,580.64	-0.47
7/7/2023 8:55:00 AM	95.21	531.46	6.57	634.58	5.56	7.67	11,852.41	8,582.28	-0.47
7/7/2023 8:55:00 PM	94.96	531.36	6.58	634.57	5.55	7.68	11,852.76	8,581.60	-0.47
7/8/2023 8:55:00 AM	94.73	531.41	6.58	634.57	5.55	7.68	11,852.88	8,581.77	-0.47
7/8/2023 8:55:00 PM	94.31	531.42	6.57	634.58	5.55	7.67	11,852.95	8,582.36	-0.47
7/9/2023 8:55:00 AM	94.27	531.52	6.56	634.59	5.55	7.68	11,853.09	8,581.96	-0.47
7/9/2023 8:55:00 PM	94.29	531.51	6.57	634.58	5.55	7.68	11,852.97	8,581.77	-0.47
7/10/2023 8:55:00 AM	94.68	531.46	6.57	634.58	5.55	7.67	11,853.43	8,582.39	-0.47
7/10/2023 8:55:00 PM	94.81	531.53	6.56	634.59	5.55	7.67	11,854.44	8,583.26	-0.47
7/11/2023 8:55:00 AM	94.65	531.65	6.55	634.60	5.55	7.68	11,852.50	8,581.94	-0.47
7/11/2023 8:55:00 PM	94.58	531.57	6.56	634.59	5.55	7.67	11,853.58	8,582.39	-0.47
7/12/2023 8:55:00 AM	94.51	531.59	6.56	634.59	5.56	7.68	11,854.28	8,583.67	-0.47
7/12/2023 8:55:00 PM	94.44	531.68	6.55	634.60	5.55	7.68	11,854.62	8,582.89	-0.47
7/13/2023 8:55:00 AM	94.57	531.70	6.55	634.60	5.55	7.68	11,854.98	8,583.48	-0.47
7/13/2023 8:55:00 PM	94.68	531.77	6.54	634.61	5.55	7.68	11,854.82	8,583.76	-0.47
7/14/2023 8:55:00 AM	94.99	531.72	6.54	634.61	5.55	7.68	11,855.31	8,583.73	-0.47
7/14/2023 8:55:00 PM	95.04	531.83	6.53	634.62	5.55	7.68	11,855.44	8,583.99	-0.47
7/15/2023 8:55:00 AM	94.99	531.79	6.54	634.61	5.55	7.68	11,855.37	8,583.69	-0.47
7/15/2023 8:55:00 PM	94.90	531.82	6.53	634.62	5.56	7.68	11,856.31	8,585.21	-0.47
7/16/2023 8:55:00 AM	95.00	531.76	6.54	634.61	5.55	7.68	11,856.79	8,584.16	-0.48
7/16/2023 8:55:00 PM	94.71	531.89	6.53	634.62	5.55	7.68	11,856.55	8,584.73	-0.48
7/17/2023 8:55:00 AM	94.27	531.86	6.53	634.62	5.55	7.68	11,855.85	8,584.28	-0.48
7/17/2023 8:55:00 PM	93.98	531.97	6.52	634.63	5.56	7.68	11,856.72	8,585.35	-0.48
7/18/2023 8:55:00 AM	94.27	531.94	6.52	634.63	5.56	7.68	11,857.41	8,586.01	-0.48
7/18/2023 8:55:00 PM	95.03	531.88	6.53	634.62	5.56	7.68	11,857.06	8,586.04	-0.48
7/19/2023 8:55:00 AM	95.52	531.90	6.53	634.62	5.55	7.68	11,856.06	8,584.79	-0.48
7/19/2023 8:55:00 PM	95.47	531.83	6.53	634.62	5.55	7.68	11,857.96	8,585.15	-0.48
7/20/2023 8:55:00 AM	95.53	531.94	6.52	634.63	5.55	7.68	11,858.09	8,585.90	-0.48
7/20/2023 8:55:00 PM	95.30	531.92	6.52	634.63	5.55	7.68	11,858.05	8,585.86	-0.48
7/21/2023 8:55:00 AM	95.23	532.00	6.52	634.63	5.55	7.68	11,857.95	8,585.84	-0.48
7/21/2023 8:55:00 PM	94.90	531.96	6.52	634.63	5.56	7.68	11,859.04	8,587.19	-0.48
7/22/2023 8:55:00 AM	94.81	532.03	6.51	634.64	5.55	7.68	11,859.14	8,586.66	-0.48
7/22/2023 8:55:00 PM	94.52	532.10	6.51	634.64	5.55	7.68	11,858.12	8,585.82	-0.48
7/23/2023 8:55:00 AM	94.80	532.06	6.51	634.64	5.55	7.68	11,859.70	8,586.97	-0.48
7/23/2023 8:55:00 PM	94.65	532.09	6.51	634.64	5.55	7.68	11,859.27	8,586.54	-0.48
7/24/2023 8:55:00 AM	94.55	532.08	6.51	634.64	5.56	7.68	11,859.00	8,587.02	-0.48

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 8:55:00 PM	93.97	532.09	6.51	634.64	5.55	7.68	11,860.39	8,587.61	-0.48
7/25/2023 8:55:00 AM	94.10	532.19	6.50	634.65	5.55	7.68	11,860.17	8,587.57	-0.48
7/25/2023 8:55:00 PM	94.41	532.12	6.50	634.65	5.55	7.68	11,859.85	8,586.42	-0.48
7/26/2023 8:55:00 AM	94.14	532.18	6.50	634.65	5.55	7.68	11,859.39	8,587.15	-0.48
7/26/2023 8:55:00 PM	94.42	532.16	6.50	634.65	5.55	7.68	11,859.76	8,587.36	-0.48
7/27/2023 8:55:00 AM	95.11	532.28	6.49	634.66	5.56	7.68	11,860.66	8,588.23	-0.48
7/27/2023 8:55:00 PM	95.61	532.24	6.49	634.66	5.55	7.68	11,861.14	8,588.37	-0.48
7/28/2023 8:55:00 AM	95.86	532.25	6.49	634.66	5.55	7.68	11,860.56	8,587.18	-0.48
7/28/2023 8:55:00 PM	95.75	532.24	6.49	634.66	5.56	7.68	11,860.78	8,588.62	-0.48
7/29/2023 8:55:00 AM	95.69	532.29	6.49	634.66	5.56	7.68	11,861.14	8,588.79	-0.48
7/29/2023 8:55:00 PM	95.29	532.32	6.48	634.67	5.55	7.68	11,861.02	8,588.24	-0.48
7/30/2023 8:56:00 AM	95.04	532.34	6.48	634.67	5.55	7.68	11,862.74	8,588.93	-0.48
7/30/2023 8:56:00 PM	94.69	532.28	6.49	634.66	5.55	7.68	11,861.57	8,588.53	-0.48
7/31/2023 8:56:00 AM	94.76	532.41	6.47	634.68	5.55	7.68	11,862.02	8,589.15	-0.48
7/31/2023 8:56:00 PM	94.83	532.38	6.48	634.67	5.55	7.68	11,861.77	8,588.34	-0.48
8/1/2023 8:56:00 AM	95.05	532.45	6.47	634.68	5.55	7.68	11,862.29	8,588.65	-0.48
8/1/2023 8:56:00 PM	95.00	532.39	6.48	634.67	5.55	7.68	11,862.52	8,589.36	-0.48
8/2/2023 8:56:00 AM	95.28	532.47	6.47	634.68	5.55	7.68	11,862.10	8,589.07	-0.48
8/2/2023 8:56:00 PM	94.96	532.44	6.47	634.68	5.55	7.68	11,862.43	8,588.74	-0.48
8/3/2023 8:56:00 AM	95.09	532.44	6.47	634.68	5.55	7.68	11,862.75	8,589.33	-0.48
8/3/2023 8:56:00 PM	95.11	532.36	6.48	634.67	5.55	7.68	11,862.21	8,588.67	-0.48
8/4/2023 8:56:00 AM	95.45	532.45	6.47	634.68	5.55	7.68	11,862.44	8,589.14	-0.48
8/4/2023 8:56:00 PM	95.54	532.50	6.47	634.68	5.55	7.68	11,863.20	8,589.50	-0.48
8/5/2023 8:56:00 AM	95.84	532.49	6.47	634.68	5.55	7.68	11,863.80	8,589.94	-0.48
8/5/2023 8:56:00 PM	95.70	532.46	6.47	634.68	5.55	7.68	11,863.87	8,590.29	-0.48
8/6/2023 8:56:00 AM	95.63	532.55	6.46	634.69	5.55	7.68	11,863.61	8,589.12	-0.48
8/6/2023 8:56:00 PM	95.27	532.48	6.47	634.68	5.55	7.68	11,864.68	8,590.47	-0.48
8/7/2023 8:56:00 AM	95.08	532.58	6.46	634.69	5.56	7.68	11,863.87	8,590.75	-0.48
8/7/2023 8:56:00 PM	94.89	532.41	6.47	634.68	5.54	7.68	11,864.02	8,586.41	-0.48
8/8/2023 8:56:00 AM	94.81	532.45	6.47	634.68	5.54	7.68	11,864.13	8,587.52	-0.48
8/8/2023 8:56:00 PM	94.59	523.76	7.43	633.72	5.54	7.58	12,124.22	8,776.53	-0.24
8/9/2023 8:56:00 AM	94.27	523.99	7.41	633.74	5.54	7.56	12,122.99	8,775.58	-0.24
8/9/2023 8:56:00 PM	93.69	524.35	7.37	633.78	5.54	7.54	12,125.46	8,776.47	-0.25
8/10/2023 8:56:00 AM	93.53	524.53	7.35	633.80	5.54	7.50	12,127.14	8,777.09	-0.26
8/10/2023 8:56:00 PM	93.90	524.76	7.33	633.82	5.55	7.54	12,126.47	8,778.62	-0.27
8/11/2023 8:56:00 AM	94.42	524.96	7.31	633.84	5.55	7.53	12,127.12	8,779.47	-0.27
8/11/2023 8:56:00 PM	94.58	525.15	7.29	633.86	5.55	7.55	12,126.41	8,779.36	-0.27
8/12/2023 8:56:00 AM	94.82	525.33	7.27	633.88	5.54	7.55	12,128.11	8,778.43	-0.27
8/12/2023 8:56:00 PM	95.26	525.51	7.25	633.90	5.55	7.52	12,127.76	8,779.35	-0.27
8/13/2023 8:56:00 AM	95.41	525.75	7.23	633.92	5.55	7.56	12,130.39	8,783.22	-0.27
8/13/2023 8:56:00 PM	94.96	526.01	7.20	633.95	5.55	7.54	12,130.18	8,782.40	-0.27
8/14/2023 8:56:00 AM	95.10	526.06	7.20	633.95	5.55	7.57	12,132.57	8,784.30	-0.27
8/14/2023 8:56:00 PM	95.07	526.19	7.19	633.96	5.55	7.57	12,134.34	8,784.30	-0.27
8/15/2023 8:56:00 AM	94.90	526.30	7.17	633.98	5.55	7.55	12,135.60	8,786.45	-0.27
8/15/2023 8:56:00 PM	94.24	526.55	7.15	634.00	5.55	7.57	12,137.45	8,788.52	-0.27
8/16/2023 8:56:00 AM	94.90	526.72	7.13	634.02	5.54	7.57	12,139.28	8,787.18	-0.27
8/16/2023 8:56:00 PM	94.60	526.92	7.11	634.04	5.55	7.58	12,140.14	8,788.72	-0.27
8/17/2023 8:56:00 AM	93.99	526.96	7.11	634.04	5.55	7.57	12,142.23	8,790.97	-0.27
8/17/2023 8:56:00 PM	93.63	527.26	7.08	634.07	5.55	7.57	12,143.98	8,792.45	-0.27
8/18/2023 8:56:00 AM	93.71	527.32	7.07	634.08	5.55	7.56	12,145.15	8,793.06	-0.27
8/18/2023 8:56:00 PM	94.51	527.48	7.06	634.09	5.55	7.55	12,146.62	8,794.01	-0.27
8/19/2023 8:56:00 AM	95.30	527.56	7.05	634.10	5.55	7.57	12,148.06	8,794.63	-0.27
8/19/2023 8:56:00 PM	95.49	527.72	7.03	634.12	5.55	7.56	12,150.44	8,797.15	-0.27
8/20/2023 8:56:00 AM	95.59	527.82	7.02	634.13	5.55	7.59	12,151.90	8,798.38	-0.27
8/20/2023 8:56:00 PM	95.33	528.01	7.00	634.15	5.55	7.58	12,152.83	8,799.34	-0.27
8/21/2023 8:56:00 AM	95.38	528.01	7.00	634.15	5.55	7.55	12,153.96	8,800.47	-0.27
8/21/2023 8:56:00 PM	95.12	528.18	6.98	634.17	5.56	7.58	12,155.29	8,801.60	-0.27
8/22/2023 8:56:00 AM	95.05	528.25	6.98	634.17	5.55	7.59	12,155.32	8,801.54	-0.27
8/22/2023 8:56:00 PM	94.87	528.32	6.97	634.18	5.55	7.58	12,154.49	8,799.91	-0.27
8/23/2023 8:56:00 AM	94.66	528.41	6.96	634.19	5.55	7.57	12,154.21	8,800.11	-0.27
8/23/2023 8:56:00 PM	94.32	528.61	6.94	634.21	5.55	7.59	12,154.15	8,798.65	-0.27
8/24/2023 8:56:00 AM	94.78	528.66	6.94	634.21	5.55	7.59	12,152.33	8,799.13	-0.27
8/24/2023 8:56:00 PM	95.63	528.79	6.92	634.23	5.55	7.59	12,152.22	8,798.65	-0.27
8/25/2023 8:56:00 AM	95.82	528.85	6.92	634.23	5.55	7.56	12,153.83	8,800.40	-0.27
8/25/2023 8:56:00 PM	95.32	528.92	6.91	634.24	5.55	7.57	12,152.99	8,798.66	-0.27
8/26/2023 8:56:00 AM	95.01	528.99	6.90	634.25	5.55	7.59	12,152.95	8,799.33	-0.27
8/26/2023 8:56:00 PM	94.91	529.10	6.89	634.26	5.55	7.59	12,152.09	8,797.11	-0.27
8/27/2023 8:56:00 AM	95.28	529.10	6.89	634.26	5.54	7.55	12,152.27	8,796.72	-0.27
8/27/2023 8:56:00 PM	95.15	529.21	6.88	634.27	5.55	7.53	12,152.43	8,798.37	-0.27
8/28/2023 8:56:00 AM	95.19	529.23	6.88	634.27	5.55	7.59	12,153.24	8,799.10	-0.27

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 8:56:00 PM	95.10	529.39	6.86	634.29	5.55	7.59	12,152.36	8,799.07	-0.28
8/29/2023 8:56:00 AM	94.97	529.43	6.86	634.29	5.55	7.56	12,152.10	8,798.73	-0.28
8/29/2023 8:56:00 PM	94.34	529.53	6.85	634.30	5.55	7.59	12,152.82	8,799.73	-0.28
8/30/2023 8:56:00 AM	94.03	529.66	6.83	634.32	5.55	7.59	12,151.96	8,798.56	-0.28
8/30/2023 8:56:00 PM	93.80	529.72	6.83	634.32	5.55	7.55	12,151.94	8,797.95	-0.28
8/31/2023 8:56:00 AM	93.86	529.79	6.82	634.33	5.56	7.55	12,153.27	8,800.15	-0.28
8/31/2023 8:56:00 PM	94.04	529.86	6.81	634.34	5.55	7.56	12,151.36	8,798.35	-0.28
9/1/2023 8:56:00 AM	94.41	529.99	6.80	634.35	5.55	7.57	12,152.37	8,798.17	-0.28
9/1/2023 8:56:00 PM	93.63	530.05	6.80	634.35	5.55	7.56	12,151.61	8,797.76	-0.28
9/2/2023 8:56:00 AM	93.90	530.08	6.79	634.36	5.55	7.55	12,153.29	8,798.90	-0.28
9/2/2023 8:56:00 PM	94.21	530.14	6.79	634.36	5.55	7.55	12,151.70	8,797.94	-0.28
9/3/2023 8:56:00 AM	93.99	530.27	6.77	634.38	5.56	7.56	12,151.95	8,799.57	-0.28
9/3/2023 8:56:00 PM	94.13	530.30	6.77	634.38	5.55	7.57	12,152.10	8,798.02	-0.28
9/4/2023 8:56:00 AM	94.65	530.26	6.77	634.38	5.56	7.57	12,151.95	8,799.19	-0.28
9/4/2023 8:56:00 PM	94.98	530.38	6.76	634.39	5.55	7.58	12,151.94	8,798.67	-0.28
9/5/2023 8:56:00 AM	95.03	530.48	6.75	634.40	5.55	7.54	12,152.10	8,798.39	-0.29
9/5/2023 8:56:00 PM	94.57	530.48	6.75	634.40	5.55	7.57	12,151.98	8,798.57	-0.29
9/6/2023 8:56:00 AM	94.63	530.50	6.75	634.40	5.55	7.56	12,153.08	8,799.19	-0.29
9/6/2023 8:56:00 PM	94.51	530.54	6.74	634.41	5.55	7.58	12,151.73	8,798.04	-0.29
9/7/2023 8:56:00 AM	94.74	530.50	6.75	634.40	5.55	7.58	12,153.24	8,799.84	-0.29
9/7/2023 8:56:00 PM	94.94	530.70	6.73	634.42	5.55	7.58	12,151.89	8,798.22	-0.30
9/8/2023 8:56:00 AM	95.34	530.74	6.73	634.42	5.55	7.60	12,152.43	8,798.94	-0.30
9/8/2023 8:56:00 PM	95.60	530.76	6.72	634.43	5.55	7.60	12,152.58	8,798.45	-0.30
9/9/2023 8:56:00 AM	95.93	530.74	6.73	634.42	5.55	7.58	12,153.20	8,799.43	-0.30
9/9/2023 8:56:00 PM	95.81	530.82	6.72	634.43	5.55	7.55	12,152.98	8,798.40	-0.30
9/10/2023 8:56:00 AM	95.70	530.80	6.72	634.43	5.56	7.58	12,153.47	8,800.24	-0.31
9/10/2023 8:56:00 PM	95.29	530.97	6.70	634.45	5.56	7.59	12,153.01	8,800.05	-0.31
9/11/2023 8:56:00 AM	95.00	530.94	6.70	634.45	5.55	7.56	12,152.79	8,798.91	-0.31
9/11/2023 8:56:00 PM	94.56	530.93	6.71	634.44	5.56	7.59	12,153.68	8,800.39	-0.32
9/12/2023 8:56:00 AM	94.46	531.01	6.70	634.45	5.55	7.57	12,154.07	8,799.82	-0.32
9/12/2023 8:56:00 PM	94.33	530.98	6.70	634.45	5.55	7.57	12,155.36	8,801.13	-0.33
9/13/2023 8:56:00 AM	94.53	531.06	6.69	634.46	5.56	7.60	12,154.78	8,801.27	-0.33
9/13/2023 8:56:00 PM	94.76	531.19	6.68	634.47	5.55	7.60	12,155.04	8,800.78	-0.34
9/14/2023 8:56:00 AM	95.20	531.13	6.69	634.46	5.56	7.57	12,154.62	8,801.40	-0.34
9/14/2023 8:56:00 PM	95.24	531.14	6.68	634.47	5.55	7.61	12,155.28	8,801.35	-0.36
9/15/2023 8:56:00 AM	95.13	531.17	6.68	634.47	5.56	7.61	12,155.89	8,803.20	-0.37
9/15/2023 8:56:00 PM	94.45	531.24	6.67	634.48	5.56	7.60	12,155.78	8,803.29	-0.40
9/16/2023 8:56:00 AM	94.67	531.28	6.67	634.48	5.55	7.58	12,155.87	8,800.98	-0.42
9/16/2023 8:56:00 PM	94.45	531.41	6.66	634.49	5.55	7.60	12,156.08	8,801.88	-0.47
9/17/2023 8:56:00 AM	93.86	531.25	6.67	634.48	5.55	7.60	12,157.06	8,801.62	-0.48
9/17/2023 8:57:00 PM	93.79	531.40	6.66	634.49	5.56	7.60	12,157.49	8,803.44	-0.48
9/18/2023 8:57:00 AM	93.78	531.48	6.65	634.50	5.55	7.61	12,156.29	8,801.86	-0.49
9/18/2023 8:57:00 PM	94.13	531.49	6.65	634.50	5.55	7.60	12,158.28	8,803.46	-0.49
9/19/2023 8:57:00 AM	94.39	531.43	6.66	634.49	5.55	7.59	12,157.16	8,801.82	-0.49
9/19/2023 8:57:00 PM	94.34	531.51	6.65	634.50	5.56	7.61	12,158.63	8,805.02	-0.49
9/20/2023 8:57:00 AM	94.89	531.54	6.64	634.51	5.55	7.60	12,158.17	8,802.69	-0.49
9/20/2023 8:57:00 PM	95.35	531.56	6.64	634.51	5.56	7.61	12,158.71	8,805.69	-0.49
9/21/2023 8:57:00 AM	95.63	531.57	6.64	634.51	5.55	7.59	12,159.13	8,804.16	-0.49
9/21/2023 8:57:00 PM	95.33	531.60	6.64	634.51	5.55	7.60	12,159.44	8,804.10	-0.49
9/22/2023 8:57:00 AM	95.18	531.70	6.63	634.52	5.55	7.62	12,160.13	8,804.70	-0.49
9/22/2023 8:57:00 PM	94.71	531.64	6.63	634.52	5.55	7.61	12,160.15	8,804.21	-0.49
9/23/2023 8:57:00 AM	94.49	531.68	6.63	634.52	5.55	7.62	12,160.71	8,805.02	-0.49
9/23/2023 8:57:00 PM	94.07	531.68	6.63	634.52	5.56	7.61	12,160.44	8,805.94	-0.49
9/24/2023 8:57:00 AM	94.27	531.70	6.63	634.52	5.55	7.60	12,160.93	8,805.27	-0.49
9/24/2023 8:57:00 PM	94.64	531.73	6.62	634.53	5.55	7.61	12,161.24	8,804.71	-0.49
9/25/2023 8:57:00 AM	94.89	531.79	6.62	634.53	5.56	7.62	12,161.61	8,806.12	-0.49
9/25/2023 8:57:00 PM	94.24	531.77	6.62	634.53	5.55	7.59	12,161.80	8,806.14	-0.49
9/26/2023 8:57:00 AM	94.07	531.80	6.62	634.53	5.55	7.58	12,163.11	8,805.59	-0.49
9/26/2023 8:57:00 PM	94.13	531.79	6.62	634.53	5.55	7.61	12,162.65	8,806.17	-0.50
9/27/2023 8:57:00 AM	94.27	531.79	6.62	634.53	5.55	7.60	12,162.66	8,806.32	-0.50
9/27/2023 8:57:00 PM	94.24	531.80	6.62	634.53	5.55	7.60	12,163.08	8,806.75	-0.50
9/28/2023 8:57:00 AM	94.32	531.83	6.61	634.54	5.56	7.62	12,162.52	8,808.04	-0.50
9/28/2023 8:57:00 PM	94.28	531.91	6.61	634.54	5.55	7.61	12,163.12	8,806.77	-0.50
9/29/2023 8:57:00 AM	94.45	531.87	6.61	634.54	5.55	7.60	12,163.92	8,807.48	-0.50
9/29/2023 8:57:00 PM	94.99	531.92	6.61	634.54	5.56	7.62	12,162.86	8,807.14	-0.50
9/30/2023 8:57:00 AM	95.48	532.01	6.60	634.55	5.55	7.61	12,163.64	8,807.20	-0.50
9/30/2023 8:57:00 PM	95.62	531.98	6.60	634.55	5.55	7.62	12,163.88	8,806.87	-0.50
10/1/2023 8:57:00 AM	95.43	532.00	6.60	634.55	5.56	7.63	12,163.83	8,808.06	-0.50
10/1/2023 8:57:00 PM	94.68	531.94	6.60	634.55	5.56	7.61	12,164.45	8,807.89	-0.50
10/2/2023 8:57:00 AM	94.17	531.97	6.60	634.55	5.55	7.62	12,165.24	8,808.42	-0.50

Table D.2 Summary of 2023 Continuous Water Quality Measurements at UL2/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/2/2023 8:57:00 PM	94.16	531.90	6.61	634.54	5.56	7.63	12,165.06	8,808.91	-0.50
10/3/2023 8:57:00 AM	94.55	531.94	6.60	634.55	5.55	7.62	12,165.00	8,808.42	-0.50
10/3/2023 8:57:00 PM	94.17	532.05	6.59	634.56	5.55	7.60	12,165.66	8,808.83	-0.50
10/4/2023 8:57:00 AM	94.27	532.01	6.60	634.55	5.55	7.63	12,166.24	8,809.24	-0.50
10/4/2023 8:57:00 PM	95.21	531.94	6.60	634.55	5.56	7.63	12,166.15	8,809.81	-0.50
10/5/2023 8:57:00 AM	95.98	532.03	6.59	634.56	5.56	7.62	12,166.69	8,811.40	-0.50
10/5/2023 8:57:00 PM	96.37	532.02	6.60	634.55	5.55	7.61	12,167.61	8,810.42	-0.50
10/6/2023 8:57:00 AM	95.62	532.13	6.58	634.57	5.56	7.63	12,168.34	8,811.27	-0.50
10/6/2023 8:57:00 PM	94.77	532.05	6.59	634.56	5.56	7.61	12,168.88	8,811.47	-0.50
10/7/2023 8:57:00 AM	95.02	532.19	6.58	634.57	5.55	7.62	12,169.86	8,811.28	-0.50
10/7/2023 8:57:00 PM	94.69	532.16	6.58	634.57	5.56	7.62	12,169.91	8,812.77	-0.50
10/8/2023 8:57:00 AM	94.39	532.11	6.59	634.56	5.55	7.59	12,169.41	8,810.64	-0.50
10/8/2023 8:57:00 PM	94.08	532.19	6.58	634.57	5.56	7.63	12,169.70	8,812.41	-0.50
10/9/2023 8:57:00 AM	93.77	532.17	6.58	634.57	5.56	7.62	12,169.72	8,812.54	-0.50
10/9/2023 8:57:00 PM	93.41	532.21	6.58	634.57	5.55	7.62	12,170.30	8,812.10	-0.50
10/10/2023 8:57:00 AM	93.06	532.20	6.58	634.57	5.56	7.63	12,170.56	8,814.67	-0.50
10/10/2023 8:57:00 PM	92.98	532.19	6.58	634.57	5.55	7.63	12,169.49	8,810.67	-0.50
10/11/2023 8:57:00 AM	93.40	532.24	6.57	634.58	5.55	7.62	12,170.73	8,812.23	-0.50
10/11/2023 8:57:00 PM	94.19	532.30	6.57	634.58	5.55	7.62	12,170.55	8,811.37	-0.50
10/12/2023 8:57:00 AM	95.21	532.26	6.57	634.58	5.56	7.64	12,170.50	8,814.59	-0.50
10/12/2023 8:57:00 PM	95.69	532.21	6.58	634.57	5.55	7.60	12,171.34	8,811.14	-0.50
10/13/2023 8:57:00 AM	95.66	532.19	6.58	634.57	5.55	7.63	12,171.47	8,812.97	-0.50
10/13/2023 8:57:00 PM	95.23	532.23	6.57	634.58	5.55	7.63	12,170.19	8,811.00	-0.50
10/14/2023 8:57:00 AM	95.12	532.34	6.56	634.59	5.55	7.64	12,171.05	8,811.97	-0.50
10/14/2023 8:57:00 PM	95.24	532.32	6.56	634.59	5.55	7.61	12,171.40	8,812.45	-0.50
10/15/2023 8:57:00 AM	95.17	532.29	6.57	634.58	5.56	7.63	12,171.32	8,813.99	-0.50
10/15/2023 8:57:00 PM	95.20	532.25	6.57	634.58	5.56	7.63	12,170.38	8,813.35	-0.50
10/16/2023 8:57:00 AM	95.10	532.34	6.56	634.59	5.56	7.64	12,172.17	8,814.12	-0.50
10/16/2023 8:57:00 PM	94.01	532.23	6.57	634.58	5.55	7.63	12,172.04	8,812.92	-0.50
10/17/2023 8:57:00 AM	93.90	532.35	6.56	634.59	5.55	7.64	12,172.44	8,812.30	-0.50
10/17/2023 8:57:00 PM	94.59	532.28	6.57	634.58	5.55	7.62	12,171.22	8,812.91	-0.50
10/18/2023 8:57:00 AM	94.00	532.34	6.56	634.59	5.55	7.63	12,171.00	8,812.55	-0.50
10/18/2023 8:57:00 PM	93.97	532.34	6.56	634.59	5.56	7.64	12,171.72	8,813.98	-0.50
10/19/2023 8:57:00 AM	94.19	532.36	6.56	634.59	5.55	7.63	12,172.62	8,814.02	-0.50
10/19/2023 8:57:00 PM	93.94	532.37	6.56	634.59	5.56	7.64	12,172.47	8,815.10	-0.50
10/20/2023 8:57:00 AM	94.57	532.36	6.56	634.59	5.56	7.64	12,172.60	8,814.95	-0.50
10/20/2023 8:57:00 PM	95.10	532.28	6.57	634.58	5.56	7.64	12,172.13	8,813.76	-0.50
10/21/2023 8:57:00 AM	94.93	532.36	6.56	634.59	5.55	7.62	12,172.49	8,813.26	-0.50
10/21/2023 8:57:00 PM	94.73	532.37	6.56	634.59	5.55	7.65	12,172.04	8,812.53	-0.50
10/22/2023 8:57:00 AM	95.00	532.36	6.56	634.59	5.55	7.65	12,172.63	8,812.53	-0.50
10/22/2023 8:57:00 PM	95.06	532.30	6.57	634.58	5.55	7.63	12,173.54	8,814.41	-0.50
10/23/2023 8:57:00 AM	95.42	532.39	6.56	634.59	5.56	7.65	12,172.47	8,815.41	-0.50
10/23/2023 8:57:00 PM	95.47	532.53	6.54	634.61	5.56	7.64	12,171.83	8,814.02	-0.50
10/24/2023 8:57:00 AM	95.71	532.43	6.55	634.60	5.55	7.64	12,173.01	8,813.40	-0.50
10/24/2023 8:57:00 PM	95.67	532.44	6.55	634.60	5.55	7.62	12,172.55	8,813.33	-0.50
10/25/2023 8:57:00 AM	95.75	532.52	6.55	634.60	5.55	7.64	12,171.78	8,813.14	-0.50
10/25/2023 8:57:00 PM	95.62	532.43	6.55	634.60	5.55	7.64	12,173.03	8,814.31	-0.50
10/26/2023 8:57:00 AM	95.85	532.48	6.55	634.60	5.55	7.63	12,172.86	8,813.54	-0.50
10/26/2023 8:57:00 PM	95.92	532.35	6.56	634.59	5.55	7.63	12,173.12	8,813.20	-0.50
10/27/2023 8:57:00 AM	95.68	532.39	6.56	634.59	5.55	7.63	12,174.02	8,814.52	-0.50
10/27/2023 8:57:00 PM	95.67	532.43	6.55	634.60	5.55	7.64	12,174.30	8,814.74	-0.50
10/28/2023 8:57:00 AM	95.48	532.48	6.55	634.60	5.55	7.64	12,174.34	8,814.52	-0.50
10/28/2023 8:57:00 PM	96.16	532.49	6.55	634.60	5.55	7.65	12,173.62	8,814.24	-0.50
10/29/2023 8:57:00 AM	96.01	532.47	6.55	634.60	5.55	7.65	12,174.47	8,813.84	-0.50
10/29/2023 8:57:00 PM	95.45	532.50	6.55	634.60	5.56	7.65	12,173.80	8,815.25	-0.50
10/30/2023 8:57:00 AM	96.00	532.48	6.55	634.60	5.55	7.63	12,174.28	8,813.34	-0.51

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	416	437	437	437	437	398	318	224	437
[Pre-Injection] Min	87.32	308.56	3.78	636.30	5.02	8.46	5,387.74	3,343.00	-0.62
[Pre-Injection] Max	95.48	325.30	4.81	637.33	5.18	10.64	5,753.35	3,566.56	0.22
[Pre-Injection] Mean	90.16	317.12	4.41	636.70	5.13	9.35	5,535.60	3,446.76	-0.45
[Pre-Injection] Median	89.27	317.98	4.47	636.64	5.14	9.28	5,493.22	3,413.83	-0.48
[Pre-Injection] Standard Deviation	2.35	3.90	0.21	0.21	0.04	0.47	98.76	64.40	0.14
[2023] Count	602	602	601	601	605	605	605	605	605
[2023] Min	92.05	306.99	4.41	636.07	5.11	7.87	5,621.40	3,518.67	-0.58
[2023] Max	96.40	309.30	5.04	636.70	5.71	8.09	5,767.71	3,606.51	-0.20
[2023] Mean	94.43	308.33	4.84	636.27	5.39	8.01	5,724.86	3,580.69	-0.47
[2023] Median	94.42	308.16	4.88	636.23	5.39	8.01	5,716.44	3,575.61	-0.50
[2023] Standard Deviation	0.73	0.47	0.18	0.18	0.02	0.04	32.02	19.53	0.09
1/1/2023 8:13:00 AM	94.11	307.86	4.43	636.68	5.39	8.06	5,760.69	3,602.58	-0.52
1/1/2023 8:13:00 PM	94.13	307.79	4.43	636.68	5.39	8.06	5,760.51	3,602.45	-0.52
1/2/2023 8:13:00 AM	93.91	307.84	4.43	636.68	5.39	8.06	5,760.63	3,602.61	-0.52
1/2/2023 8:13:00 PM	93.60	307.83	4.43	636.68	5.39	8.06	5,760.76	3,602.60	-0.52
1/3/2023 8:13:00 AM	93.41	307.82	4.43	636.68	5.39	8.06	5,761.11	3,602.85	-0.52
1/3/2023 8:13:00 PM	93.65	307.78	4.44	636.67	5.39	8.06	5,761.16	3,602.73	-0.52
1/4/2023 8:13:00 AM	94.28	307.82	4.43	636.68	5.39	8.06	5,761.23	3,602.91	-0.52
1/4/2023 8:13:00 PM	94.51	307.82	4.43	636.68	5.39	8.06	5,760.94	3,602.71	-0.52
1/5/2023 8:13:00 AM	94.42	307.86	4.43	636.68	5.39	8.06	5,761.51	3,603.01	-0.52
1/5/2023 8:13:00 PM	93.89	307.81	4.43	636.68	5.39	8.06	5,760.23	3,602.26	-0.52
1/6/2023 8:13:00 AM	93.85	307.75	4.44	636.67	5.39	8.06	5,760.58	3,602.46	-0.52
1/6/2023 8:13:00 PM	94.12	307.72	4.44	636.67	5.39	8.06	5,760.48	3,602.43	-0.52
1/7/2023 8:13:00 AM	94.24	307.76	4.44	636.67	5.39	8.06	5,760.76	3,602.70	-0.52
1/7/2023 8:13:00 PM	94.21	307.79	4.43	636.68	5.39	8.06	5,760.88	3,602.75	-0.52
1/8/2023 8:13:00 AM	93.69	307.75	4.44	636.67	5.39	8.06	5,760.64	3,602.56	-0.51
1/8/2023 8:13:00 PM	93.55	307.71	4.44	636.67	5.39	8.06	5,760.87	3,602.75	-0.51
1/9/2023 8:13:00 AM	93.61	307.80	4.43	636.68	5.39	8.06	5,761.22	3,603.07	-0.52
1/9/2023 8:13:00 PM	93.54	307.78	4.44	636.67	5.39	8.06	5,761.02	3,602.93	-0.51
1/10/2023 8:13:00 AM	93.75	307.66	4.45	636.66	5.39	8.06	5,761.42	3,603.04	-0.52
1/10/2023 8:13:00 PM	94.15	307.65	4.45	636.66	5.39	8.06	5,761.34	3,603.08	-0.51
1/11/2023 8:13:00 AM	94.73	307.54	4.46	636.65	5.39	8.06	5,761.88	3,603.38	-0.52
1/11/2023 8:13:00 PM	94.90	307.60	4.45	636.66	5.39	8.06	5,761.71	3,603.30	-0.52
1/12/2023 8:14:00 AM	94.83	307.62	4.45	636.66	5.39	8.07	5,762.06	3,603.52	-0.52
1/12/2023 8:14:00 PM	94.33	307.64	4.45	636.66	5.39	8.07	5,762.50	3,603.94	-0.52
1/13/2023 8:14:00 AM	94.09	307.80	4.43	636.68	5.39	8.07	5,762.56	3,603.75	-0.52
1/13/2023 8:14:00 PM	93.50	307.96	4.42	636.69	5.39	8.07	5,761.68	3,603.24	-0.52
1/14/2023 8:14:00 AM	93.23	307.89	4.42	636.69	5.39	8.07	5,762.48	3,603.68	-0.52
1/14/2023 8:14:00 PM	93.20	307.77	4.44	636.67	5.39	8.07	5,762.59	3,603.76	-0.52
1/15/2023 8:14:00 AM	93.27	308.00	4.41	636.70	5.39	8.07	5,762.54	3,603.88	-0.52
1/15/2023 8:14:00 PM	93.34	307.85	4.43	636.68	5.39	8.07	5,762.37	3,603.78	-0.52
1/16/2023 8:14:00 AM	93.54	307.77	4.44	636.67	5.39	8.07	5,762.72	3,603.73	-0.52
1/16/2023 8:14:00 PM	93.67	307.66	4.45	636.66	5.39	8.07	5,762.66	3,603.90	-0.52
1/17/2023 8:14:00 AM	93.83	307.73	4.44	636.67	5.39	8.07	5,762.38	3,603.83	-0.51
1/17/2023 8:14:00 PM	93.88	307.75	4.44	636.67	5.39	8.08	5,762.68	3,603.88	-0.51
1/18/2023 8:14:00 AM	93.87	307.92	4.42	636.69	5.39	8.07	5,762.57	3,603.87	-0.52
1/18/2023 8:14:00 PM	93.75	307.75	4.44	636.67	5.39	8.07	5,763.01	3,604.22	-0.52
1/19/2023 8:14:00 AM	94.41	307.79	4.43	636.68	5.39	8.07	5,763.11	3,604.26	-0.52
1/19/2023 8:14:00 PM	94.67	307.73	4.44	636.67	5.39	8.07	5,763.52	3,604.42	-0.51
1/20/2023 8:14:00 AM	94.66	307.81	4.43	636.68	5.39	8.07	5,762.92	3,603.87	-0.51
1/20/2023 8:14:00 PM	94.59	307.78	4.44	636.67	5.39	8.07	5,763.88	3,604.65	-0.51
1/21/2023 8:14:00 AM	94.30	307.67	4.45	636.66	5.39	8.07	5,764.36	3,605.03	-0.51
1/21/2023 8:14:00 PM	93.61	307.79	4.43	636.68	5.38	8.07	5,764.63	3,604.64	-0.51
1/22/2023 8:14:00 AM	94.30	307.73	4.44	636.67	5.38	8.07	5,764.35	3,604.54	-0.51
1/22/2023 8:14:00 PM	94.88	307.70	4.44	636.67	5.38	8.07	5,764.79	3,604.87	-0.51
1/23/2023 8:14:00 AM	94.00	307.81	4.43	636.68	5.38	8.08	5,764.66	3,604.77	-0.51
1/23/2023 8:14:00 PM	94.09	307.75	4.44	636.67	5.38	8.07	5,765.19	3,604.96	-0.51
1/24/2023 8:14:00 AM	94.44	307.74	4.44	636.67	5.39	8.08	5,765.19	3,605.49	-0.51
1/24/2023 8:14:00 PM	94.99	307.72	4.44	636.67	5.38	8.07	5,765.73	3,605.37	-0.51
1/25/2023 8:14:00 AM	95.29	307.77	4.44	636.67	5.38	8.07	5,765.19	3,604.90	-0.51
1/25/2023 8:14:00 PM	94.55	307.70	4.44	636.67	5.38	8.08	5,764.96	3,604.89	-0.51
1/26/2023 8:14:00 AM	93.96	307.76	4.44	636.67	5.38	8.08	5,765.09	3,604.93	-0.51
1/26/2023 8:14:00 PM	94.15	307.82	4.43	636.68	5.38	8.08	5,765.60	3,605.04	-0.51
1/27/2023 8:14:00 AM	94.98	307.84	4.43	636.68	5.38	8.08	5,765.57	3,605.12	-0.51
1/27/2023 8:14:00 PM	95.82	307.71	4.44	636.67	5.38	8.08	5,765.76	3,605.30	-0.51
1/28/2023 8:14:00 AM	96.29	307.78	4.43	636.68	5.38	8.08	5,765.02	3,604.94	-0.51
1/28/2023 8:14:00 PM	96.07	307.77	4.44	636.67	5.39	8.08	5,764.80	3,605.06	-0.51
1/29/2023 8:14:00 AM	95.98	307.85	4.43	636.68	5.39	8.08	5,764.62	3,605.14	-0.51

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 8:14:00 PM	94.91	307.91	4.42	636.69	5.39	8.08	5,764.58	3,605.07	-0.51
1/30/2023 8:14:00 AM	95.07	308.02	4.41	636.70	5.39	8.08	5,764.48	3,605.15	-0.51
1/30/2023 8:14:00 PM	94.29	307.91	4.42	636.69	5.39	8.08	5,765.08	3,605.36	-0.51
1/31/2023 8:14:00 AM	94.38	307.96	4.42	636.69	5.39	8.08	5,764.86	3,605.31	-0.52
1/31/2023 8:14:00 PM	94.23	307.84	4.43	636.68	5.39	8.09	5,765.27	3,605.66	-0.52
2/1/2023 8:14:00 AM	94.93	307.88	4.43	636.68	5.39	8.09	5,765.38	3,605.47	-0.52
2/1/2023 8:14:00 PM	95.80	307.85	4.43	636.68	5.39	8.09	5,765.43	3,605.75	-0.52
2/2/2023 8:14:00 AM	95.31	307.87	4.43	636.68	5.39	8.09	5,765.58	3,605.52	-0.52
2/2/2023 8:14:00 PM	94.33	307.91	4.42	636.69	5.39	8.08	5,765.28	3,605.65	-0.52
2/3/2023 8:14:00 AM	93.53	308.00	4.41	636.70	5.38	8.08	5,765.42	3,605.29	-0.52
2/3/2023 8:14:00 PM	93.35	307.96	4.42	636.69	5.39	8.08	5,765.96	3,605.80	-0.52
2/4/2023 8:14:00 AM	93.55	307.76	4.44	636.67	5.39	8.08	5,766.73	3,606.27	-0.51
2/4/2023 8:14:00 PM	93.69	307.75	4.44	636.67	5.39	8.08	5,766.45	3,606.22	-0.51
2/5/2023 8:14:00 AM	92.98	307.79	4.43	636.68	5.39	8.09	5,766.56	3,606.17	-0.52
2/5/2023 8:14:00 PM	92.94	307.78	4.43	636.68	5.39	8.09	5,766.08	3,605.87	-0.52
2/6/2023 8:14:00 AM	93.71	307.67	4.45	636.66	5.39	8.08	5,766.03	3,605.93	-0.51
2/6/2023 8:14:00 PM	93.18	307.73	4.44	636.67	5.39	8.08	5,766.41	3,606.21	-0.51
2/7/2023 8:14:00 AM	93.79	307.72	4.44	636.67	5.39	8.09	5,766.56	3,606.37	-0.51
2/7/2023 8:14:00 PM	93.80	307.83	4.43	636.68	5.39	8.08	5,766.46	3,606.27	-0.51
2/8/2023 8:14:00 AM	94.84	307.76	4.44	636.67	5.39	8.09	5,766.57	3,606.26	-0.51
2/8/2023 8:14:00 PM	95.24	307.70	4.44	636.67	5.39	8.09	5,766.64	3,606.19	-0.51
2/9/2023 8:14:00 AM	95.04	307.90	4.42	636.69	5.39	8.09	5,766.70	3,606.38	-0.51
2/9/2023 8:14:00 PM	94.27	307.91	4.42	636.69	5.38	8.09	5,766.53	3,605.67	-0.51
2/10/2023 8:14:00 AM	93.51	308.04	4.41	636.70	5.38	8.09	5,766.86	3,605.85	-0.51
2/10/2023 8:14:00 PM	93.88	307.83	4.43	636.68	5.38	8.09	5,766.71	3,605.92	-0.51
2/11/2023 8:14:00 AM	94.09	307.81	4.43	636.68	5.38	8.09	5,767.16	3,606.06	-0.48
2/11/2023 8:14:00 PM	93.91	307.64	4.45	636.66	5.39	8.09	5,767.00	3,606.39	-0.50
2/12/2023 8:14:00 AM	93.78	307.80	4.43	636.68	5.39	8.09	5,766.78	3,606.51	-0.51
2/12/2023 8:14:00 PM	92.45	307.76	4.44	636.67	5.38	8.09	5,767.61	3,606.37	-0.51
2/13/2023 8:14:00 AM	92.13	307.87	4.43	636.68	5.38	8.09	5,767.27	3,606.17	-0.51
2/13/2023 8:14:00 PM	93.40	307.92	4.42	636.69	5.38	8.09	5,767.71	3,606.44	-0.51
2/14/2023 8:14:00 AM	94.58	308.02	4.41	636.70	5.38	8.09	5,767.69	3,606.50	-0.51
2/14/2023 2:00:00 PM	-	-	-	-	5.11	7.95	5,730.43	3,553.35	-0.24
2/15/2023 2:00:00 AM	94.81	306.99	4.96	636.15	5.43	8.00	5,723.98	3,583.86	-0.32
2/15/2023 2:00:00 PM	94.81	307.79	4.88	636.23	5.39	8.01	5,701.86	3,566.08	-0.33
2/16/2023 2:00:00 AM	94.43	307.90	4.87	636.24	5.38	8.00	5,701.27	3,564.85	-0.34
2/16/2023 2:00:00 PM	93.60	307.95	4.86	636.25	5.38	8.00	5,705.06	3,566.78	-0.34
2/17/2023 2:00:00 AM	93.84	307.78	4.88	636.23	5.38	7.99	5,708.41	3,568.95	-0.34
2/17/2023 2:00:00 PM	93.97	307.85	4.87	636.24	5.38	7.99	5,711.20	3,570.76	-0.34
2/18/2023 2:00:00 AM	93.58	307.74	4.88	636.23	5.38	7.98	5,713.91	3,572.50	-0.35
2/18/2023 2:00:00 PM	94.13	307.77	4.88	636.23	5.38	7.97	5,716.34	3,574.29	-0.35
2/19/2023 2:00:00 AM	93.90	307.79	4.88	636.23	5.38	7.97	5,719.11	3,576.03	-0.35
2/19/2023 2:00:00 PM	93.14	308.00	4.86	636.25	5.39	7.97	5,722.10	3,578.46	-0.35
2/20/2023 2:00:00 AM	94.11	307.98	4.86	636.25	5.39	7.98	5,727.10	3,581.47	-0.35
2/20/2023 2:00:00 PM	94.28	307.93	4.87	636.24	5.39	7.98	5,731.08	3,584.13	-0.35
2/21/2023 2:00:00 AM	94.12	308.05	4.85	636.26	5.39	7.96	5,733.61	3,585.88	-0.35
2/21/2023 2:00:00 PM	94.94	308.01	4.86	636.25	5.39	7.99	5,738.98	3,589.30	-0.35
2/22/2023 2:00:00 AM	95.69	308.06	4.85	636.26	5.38	7.96	5,744.84	3,592.49	-0.35
2/22/2023 2:00:00 PM	95.94	307.92	4.87	636.24	5.39	7.97	5,749.66	3,595.76	-0.36
2/23/2023 2:00:00 AM	96.24	307.94	4.86	636.25	5.39	7.97	5,753.77	3,598.19	-0.36
2/23/2023 2:00:00 PM	96.40	307.83	4.88	636.23	5.39	7.97	5,756.37	3,599.87	-0.35
2/24/2023 2:00:00 AM	95.91	307.94	4.86	636.25	5.39	7.97	5,755.60	3,599.27	-0.36
2/24/2023 2:00:00 PM	94.47	307.92	4.87	636.24	5.39	7.97	5,757.16	3,600.31	-0.36
2/25/2023 2:00:00 AM	93.67	308.09	4.85	636.26	5.39	7.97	5,756.52	3,599.94	-0.36
2/25/2023 2:00:00 PM	93.43	307.90	4.87	636.24	5.39	7.97	5,755.45	3,599.21	-0.36
2/26/2023 2:00:00 AM	92.51	307.83	4.87	636.24	5.38	7.97	5,756.40	3,599.62	-0.36
2/26/2023 2:00:00 PM	92.10	307.92	4.87	636.24	5.38	7.97	5,755.30	3,599.02	-0.36
2/27/2023 2:00:00 AM	92.76	307.92	4.87	636.24	5.38	7.97	5,755.03	3,598.72	-0.36
2/27/2023 2:00:00 PM	93.19	307.91	4.87	636.24	5.38	7.97	5,755.23	3,598.88	-0.36
2/28/2023 2:00:00 AM	93.53	307.94	4.86	636.25	5.38	7.97	5,754.52	3,598.54	-0.36
2/28/2023 2:00:00 PM	94.00	308.07	4.85	636.26	5.38	7.97	5,755.28	3,598.99	-0.37
3/1/2023 2:00:00 AM	94.07	307.86	4.87	636.24	5.38	7.97	5,755.04	3,598.65	-0.37
3/1/2023 2:00:00 PM	93.44	307.94	4.86	636.25	5.38	7.97	5,755.46	3,598.92	-0.37
3/2/2023 2:00:00 AM	92.44	307.89	4.87	636.24	5.39	7.97	5,754.93	3,598.82	-0.37
3/2/2023 2:00:00 PM	92.05	307.91	4.87	636.24	5.38	7.97	5,755.18	3,598.87	-0.37
3/3/2023 2:00:00 AM	92.79	307.94	4.86	636.25	5.38	7.97	5,754.76	3,598.64	-0.38
3/3/2023 2:00:00 PM	92.99	307.87	4.87	636.24	5.38	7.97	5,755.33	3,598.92	-0.38
3/4/2023 2:00:00 AM	93.67	307.85	4.87	636.24	5.39	7.98	5,755.14	3,598.94	-0.38
3/4/2023 2:00:00 PM	94.36	307.81	4.88	636.23	5.38	7.98	5,755.55	3,599.08	-0.38
3/5/2023 2:00:00 AM	95.31	307.89	4.87	636.24	5.38	7.98	5,754.23	3,598.16	-0.38

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/5/2023 2:00:00 PM	95.75	308.03	4.85	636.26	5.38	7.98	5,753.99	3,598.12	-0.39
3/6/2023 2:00:00 AM	95.91	307.92	4.87	636.24	5.38	7.98	5,753.75	3,597.87	-0.39
3/6/2023 2:00:00 PM	95.93	307.97	4.86	636.25	5.38	7.98	5,753.49	3,597.89	-0.39
3/7/2023 2:00:00 AM	95.75	307.87	4.87	636.24	5.38	7.98	5,752.88	3,597.43	-0.40
3/7/2023 2:00:00 PM	95.79	307.99	4.86	636.25	5.38	7.98	5,753.48	3,597.84	-0.40
3/8/2023 2:00:00 AM	96.16	307.87	4.87	636.24	5.38	7.98	5,752.60	3,597.20	-0.40
3/8/2023 2:00:00 PM	96.40	307.84	4.87	636.24	5.39	7.98	5,752.37	3,597.24	-0.41
3/9/2023 2:00:00 AM	96.33	307.97	4.86	636.25	5.38	7.98	5,752.89	3,597.33	-0.42
3/9/2023 2:00:00 PM	95.58	308.02	4.86	636.25	5.38	7.98	5,752.57	3,597.18	-0.44
3/10/2023 2:00:00 AM	94.80	308.03	4.85	636.26	5.39	7.98	5,751.88	3,596.90	-0.48
3/10/2023 2:00:00 PM	94.37	308.02	4.86	636.25	5.38	7.98	5,751.76	3,596.70	-0.51
3/11/2023 2:00:00 AM	94.85	307.83	4.87	636.24	5.38	7.98	5,752.15	3,596.82	-0.51
3/11/2023 2:00:00 PM	95.25	307.71	4.89	636.22	5.38	7.98	5,752.67	3,597.16	-0.51
3/12/2023 3:00:00 AM	95.33	307.68	4.89	636.22	5.39	7.98	5,753.09	3,597.73	-0.51
3/12/2023 3:00:00 PM	95.11	307.75	4.88	636.23	5.38	7.98	5,752.95	3,597.52	-0.51
3/13/2023 3:00:00 AM	94.51	307.72	4.89	636.22	5.39	7.98	5,752.89	3,597.59	-0.51
3/13/2023 3:00:00 PM	93.53	307.80	4.88	636.23	5.38	7.98	5,753.65	3,597.92	-0.51
3/14/2023 3:00:00 AM	93.14	307.88	4.87	636.24	5.38	7.98	5,754.30	3,598.29	-0.51
3/14/2023 3:00:00 PM	93.54	307.89	4.87	636.24	5.38	7.98	5,754.34	3,598.43	-0.51
3/15/2023 3:00:00 AM	93.84	307.87	4.87	636.24	5.38	7.98	5,754.84	3,598.71	-0.51
3/15/2023 3:00:00 PM	94.40	308.03	4.86	636.25	5.38	7.98	5,754.71	3,598.61	-0.51
3/16/2023 3:00:00 AM	95.04	307.78	4.88	636.23	5.38	7.98	5,754.76	3,598.46	-0.51
3/16/2023 3:00:00 PM	95.46	307.79	4.88	636.23	5.39	7.98	5,754.29	3,598.47	-0.51
3/17/2023 3:00:00 AM	95.51	307.76	4.88	636.23	5.39	7.98	5,754.63	3,598.45	-0.51
3/17/2023 3:00:00 PM	95.31	307.87	4.87	636.24	5.39	7.98	5,754.56	3,598.60	-0.51
3/18/2023 3:00:00 AM	94.98	307.82	4.88	636.23	5.38	7.98	5,754.38	3,598.30	-0.51
3/18/2023 3:00:00 PM	94.76	307.94	4.86	636.25	5.38	7.98	5,754.82	3,598.62	-0.51
3/19/2023 3:00:00 AM	94.64	307.80	4.88	636.23	5.38	7.98	5,754.33	3,598.22	-0.51
3/19/2023 3:00:00 PM	94.47	307.82	4.88	636.23	5.39	7.98	5,754.29	3,598.43	-0.51
3/20/2023 3:00:00 AM	94.27	307.83	4.87	636.24	5.38	7.98	5,754.38	3,598.45	-0.51
3/20/2023 3:00:00 PM	94.10	308.01	4.86	636.25	5.39	7.98	5,754.55	3,598.63	-0.52
3/21/2023 3:00:00 AM	94.28	307.91	4.87	636.24	5.38	7.98	5,754.45	3,598.41	-0.51
3/21/2023 3:00:00 PM	94.42	307.97	4.86	636.25	5.38	7.98	5,754.67	3,598.64	-0.51
3/22/2023 3:00:00 AM	94.14	307.86	4.87	636.24	5.39	7.98	5,754.84	3,598.77	-0.51
3/22/2023 3:00:00 PM	93.71	308.08	4.85	636.26	5.39	7.99	5,754.73	3,598.87	-0.51
3/23/2023 3:00:00 AM	93.46	308.03	4.85	636.26	5.38	7.98	5,755.16	3,598.76	-0.51
3/23/2023 3:00:00 PM	93.60	308.02	4.86	636.25	5.39	7.98	5,754.40	3,598.53	-0.51
3/24/2023 3:00:00 AM	94.03	307.82	4.88	636.23	5.38	7.98	5,755.02	3,598.74	-0.51
3/24/2023 3:00:00 PM	94.53	307.78	4.88	636.23	5.38	7.99	5,755.24	3,598.98	-0.51
3/25/2023 3:00:00 AM	94.51	307.86	4.87	636.24	5.39	7.99	5,754.54	3,598.82	-0.51
3/25/2023 3:00:00 PM	94.49	307.92	4.87	636.24	5.39	7.99	5,755.14	3,599.01	-0.51
3/26/2023 3:00:00 AM	94.87	307.77	4.88	636.23	5.38	7.99	5,755.41	3,598.88	-0.51
3/26/2023 3:00:00 PM	95.36	307.74	4.88	636.23	5.39	7.99	5,754.63	3,598.69	-0.51
3/27/2023 3:00:00 AM	95.91	307.80	4.88	636.23	5.39	7.99	5,755.02	3,598.99	-0.51
3/27/2023 3:00:00 PM	95.80	307.86	4.87	636.24	5.39	7.99	5,755.12	3,599.11	-0.51
3/28/2023 3:00:00 AM	95.40	307.99	4.86	636.25	5.38	7.99	5,755.44	3,599.13	-0.51
3/28/2023 3:00:00 PM	95.15	308.04	4.85	636.26	5.39	7.99	5,755.36	3,599.16	-0.51
3/29/2023 3:00:00 AM	94.54	307.94	4.86	636.25	5.39	7.99	5,755.74	3,599.35	-0.51
3/29/2023 3:00:00 PM	94.23	307.97	4.86	636.25	5.39	7.99	5,755.64	3,599.36	-0.51
3/30/2023 3:00:00 AM	94.42	307.78	4.88	636.23	5.38	7.99	5,755.87	3,599.36	-0.50
3/30/2023 3:00:00 PM	94.06	307.82	4.88	636.23	5.39	7.99	5,755.71	3,599.41	-0.50
3/31/2023 3:00:00 AM	93.60	307.89	4.87	636.24	5.39	7.99	5,755.95	3,599.51	-0.50
3/31/2023 3:00:00 PM	93.49	307.95	4.86	636.25	5.39	7.99	5,755.91	3,599.56	-0.50
4/1/2023 3:00:00 AM	93.22	307.93	4.86	636.25	5.38	7.99	5,756.13	3,599.46	-0.50
4/1/2023 3:00:00 PM	93.08	307.92	4.87	636.24	5.39	7.99	5,756.36	3,599.89	-0.50
4/2/2023 3:00:00 AM	93.27	308.00	4.86	636.25	5.39	7.99	5,756.50	3,599.93	-0.50
4/2/2023 3:00:00 PM	93.73	307.93	4.86	636.25	5.39	7.99	5,756.63	3,599.93	-0.50
4/3/2023 3:00:00 AM	94.14	307.92	4.87	636.24	5.39	7.99	5,757.21	3,600.30	-0.50
4/3/2023 3:00:00 PM	94.42	307.98	4.86	636.25	5.39	7.99	5,757.79	3,600.65	-0.50
4/4/2023 3:00:00 AM	94.63	307.94	4.86	636.25	5.39	7.99	5,757.46	3,600.51	-0.50
4/4/2023 3:00:00 PM	94.88	307.94	4.86	636.25	5.39	7.99	5,757.92	3,600.73	-0.50
4/5/2023 3:00:00 AM	94.65	308.01	4.86	636.25	5.39	7.99	5,758.34	3,600.96	-0.50
4/5/2023 3:00:00 PM	94.45	308.00	4.86	636.25	5.39	7.99	5,758.12	3,601.02	-0.50
4/6/2023 3:00:00 AM	94.42	307.98	4.86	636.25	5.39	7.99	5,758.68	3,601.29	-0.50
4/6/2023 3:00:00 PM	94.46	308.04	4.85	636.26	5.39	7.99	5,758.81	3,601.41	-0.50
4/7/2023 3:00:00 AM	94.06	307.92	4.87	636.24	5.39	7.99	5,759.04	3,601.54	-0.50
4/7/2023 3:00:00 PM	93.58	308.08	4.85	636.26	5.39	7.99	5,759.30	3,601.79	-0.50
4/8/2023 3:00:00 AM	93.20	308.08	4.85	636.26	5.39	7.99	5,759.39	3,601.74	-0.50
4/8/2023 3:00:00 PM	93.43	308.05	4.85	636.26	5.39	7.99	5,759.25	3,601.67	-0.45
4/9/2023 3:01:00 AM	93.87	308.05	4.85	636.26	5.39	7.99	5,759.62	3,601.84	-0.45

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/9/2023 3:01:00 PM	93.82	308.04	4.85	636.26	5.39	7.99	5,759.36	3,601.84	-0.45
4/10/2023 3:01:00 AM	93.53	308.02	4.86	636.25	5.39	7.99	5,759.60	3,601.97	-0.45
4/10/2023 3:01:00 PM	94.11	308.07	4.85	636.26	5.39	7.99	5,759.49	3,601.71	-0.47
4/11/2023 3:01:00 AM	93.81	307.97	4.86	636.25	5.39	7.99	5,758.75	3,601.41	-0.49
4/11/2023 3:01:00 PM	93.60	307.94	4.86	636.25	5.39	7.99	5,759.00	3,601.56	-0.50
4/12/2023 3:01:00 AM	93.87	307.99	4.86	636.25	5.39	7.99	5,758.89	3,601.52	-0.50
4/12/2023 3:01:00 PM	93.91	308.01	4.86	636.25	5.39	7.99	5,758.73	3,601.30	-0.50
4/13/2023 3:01:00 AM	94.04	308.05	4.85	636.26	5.39	7.99	5,758.94	3,601.44	-0.50
4/13/2023 3:01:00 PM	93.95	307.96	4.86	636.25	5.39	7.99	5,758.62	3,601.28	-0.50
4/14/2023 3:01:00 AM	94.15	307.96	4.86	636.25	5.39	7.99	5,758.76	3,601.34	-0.50
4/14/2023 3:01:00 PM	94.34	307.88	4.87	636.24	5.39	7.99	5,758.75	3,601.39	-0.50
4/15/2023 3:01:00 AM	94.67	307.95	4.86	636.25	5.39	7.99	5,759.10	3,601.63	-0.50
4/15/2023 3:01:00 PM	94.70	307.89	4.87	636.24	5.39	7.99	5,759.17	3,601.68	-0.50
4/16/2023 3:01:00 AM	94.48	307.94	4.86	636.25	5.39	7.99	5,758.46	3,601.27	-0.50
4/16/2023 3:01:00 PM	93.95	308.03	4.85	636.26	5.39	7.99	5,758.92	3,601.54	-0.50
4/17/2023 3:01:00 AM	93.10	308.03	4.85	636.26	5.39	7.99	5,759.10	3,601.61	-0.50
4/17/2023 3:01:00 PM	92.93	308.07	4.85	636.26	5.39	7.99	5,759.32	3,601.80	-0.50
4/18/2023 3:01:00 AM	93.40	308.03	4.85	636.26	5.39	7.98	5,758.86	3,601.33	-0.50
4/18/2023 3:01:00 PM	93.75	308.10	4.85	636.26	5.39	7.98	5,759.29	3,601.83	-0.50
4/19/2023 3:01:00 AM	94.28	307.99	4.86	636.25	5.39	7.99	5,759.38	3,601.83	-0.51
4/19/2023 3:01:00 PM	95.00	307.94	4.86	636.25	5.39	7.98	5,759.48	3,601.89	-0.51
4/20/2023 3:01:00 AM	95.60	307.89	4.87	636.24	5.39	7.98	5,759.75	3,601.96	-0.51
4/20/2023 3:01:00 PM	95.81	307.84	4.87	636.24	5.39	7.98	5,760.01	3,602.19	-0.51
4/21/2023 3:01:00 AM	95.82	307.81	4.88	636.23	5.39	7.98	5,760.02	3,602.26	-0.51
4/21/2023 3:01:00 PM	96.02	307.86	4.87	636.24	5.39	7.98	5,760.30	3,602.41	-0.51
4/22/2023 3:01:00 AM	95.60	307.93	4.86	636.25	5.39	7.98	5,760.27	3,602.41	-0.51
4/22/2023 3:01:00 PM	94.98	307.92	4.87	636.24	5.39	7.98	5,761.06	3,602.77	-0.51
4/23/2023 3:01:00 AM	94.44	307.99	4.86	636.25	5.39	7.98	5,760.29	3,602.56	-0.51
4/23/2023 3:01:00 PM	93.95	308.01	4.86	636.25	5.39	7.98	5,760.23	3,602.41	-0.51
4/24/2023 3:01:00 AM	93.84	308.00	4.86	636.25	5.39	7.98	5,760.30	3,602.35	-0.51
4/24/2023 3:01:00 PM	94.25	307.98	4.86	636.25	5.39	7.98	5,759.85	3,602.11	-0.51
4/25/2023 3:01:00 AM	94.35	307.96	4.86	636.25	5.39	7.98	5,760.47	3,602.59	-0.51
4/25/2023 3:01:00 PM	94.24	308.00	4.86	636.25	5.39	7.98	5,760.71	3,602.63	-0.51
4/26/2023 3:01:00 AM	94.60	307.98	4.86	636.25	5.39	7.98	5,761.14	3,602.91	-0.51
4/26/2023 3:01:00 PM	93.89	308.04	4.85	636.26	5.39	7.98	5,761.41	3,603.09	-0.51
4/27/2023 3:01:00 AM	94.21	308.11	4.85	636.26	5.39	7.98	5,761.59	3,603.20	-0.51
4/27/2023 3:01:00 PM	94.87	308.00	4.86	636.25	5.39	7.98	5,761.67	3,603.22	-0.51
4/28/2023 3:01:00 AM	94.62	307.98	4.86	636.25	5.39	7.98	5,761.93	3,603.30	-0.51
4/28/2023 3:01:00 PM	94.89	307.97	4.86	636.25	5.39	7.98	5,761.97	3,603.39	-0.51
4/29/2023 3:01:00 AM	95.26	307.96	4.86	636.25	5.39	7.98	5,761.98	3,603.49	-0.51
4/29/2023 3:01:00 PM	95.09	307.89	4.87	636.24	5.39	7.98	5,761.76	3,603.44	-0.51
4/30/2023 3:01:00 AM	94.82	307.97	4.86	636.25	5.39	7.98	5,761.98	3,603.44	-0.51
4/30/2023 3:01:00 PM	94.40	307.94	4.86	636.25	5.39	7.98	5,762.02	3,603.51	-0.51
5/1/2023 3:01:00 AM	94.17	308.03	4.85	636.26	5.39	7.98	5,761.71	3,603.58	-0.51
5/1/2023 3:01:00 PM	93.86	308.10	4.85	636.26	5.39	7.98	5,762.47	3,603.67	-0.51
5/2/2023 3:01:00 AM	94.03	307.99	4.86	636.25	5.39	7.98	5,762.35	3,603.90	-0.51
5/2/2023 3:01:00 PM	94.39	308.02	4.86	636.25	5.39	7.98	5,762.83	3,604.14	-0.51
5/3/2023 3:01:00 AM	94.25	308.00	4.86	636.25	5.39	7.98	5,762.50	3,603.73	-0.51
5/3/2023 3:01:00 PM	93.79	308.00	4.86	636.25	5.39	7.98	5,762.65	3,603.92	-0.51
5/4/2023 3:01:00 AM	93.87	308.06	4.85	636.26	5.39	7.98	5,762.66	3,604.14	-0.51
5/4/2023 3:01:00 PM	94.00	307.93	4.87	636.24	5.39	7.98	5,763.00	3,604.26	-0.51
5/5/2023 3:01:00 AM	94.33	308.06	4.85	636.26	5.39	7.98	5,763.04	3,604.16	-0.51
5/5/2023 3:01:00 PM	94.52	307.93	4.86	636.25	5.39	7.98	5,763.37	3,604.38	-0.51
5/6/2023 3:01:00 AM	94.82	307.94	4.86	636.25	5.39	7.98	5,763.18	3,604.28	-0.51
5/6/2023 3:01:00 PM	94.69	307.98	4.86	636.25	5.39	7.98	5,763.42	3,604.37	-0.51
5/7/2023 3:01:00 AM	94.62	307.94	4.86	636.25	5.39	7.98	5,762.96	3,604.25	-0.51
5/7/2023 3:01:00 PM	94.44	308.02	4.86	636.25	5.39	7.98	5,763.12	3,604.23	-0.51
5/8/2023 3:01:00 AM	94.40	308.09	4.85	636.26	5.39	7.98	5,763.32	3,604.45	-0.51
5/8/2023 3:01:00 PM	-	-	-	-	5.71	7.90	5,649.05	3,567.82	-0.23
5/9/2023 3:01:00 AM	94.40	307.74	5.04	636.07	5.42	7.87	5,621.40	3,518.67	-0.20
5/9/2023 3:01:00 PM	94.38	308.06	5.01	636.10	5.39	7.90	5,628.33	3,520.32	-0.25
5/10/2023 3:01:00 AM	94.58	308.15	5.00	636.11	5.38	7.91	5,635.14	3,523.82	-0.26
5/10/2023 3:01:00 PM	94.62	308.12	5.00	636.11	5.39	7.91	5,641.35	3,527.86	-0.27
5/11/2023 3:01:00 AM	94.84	308.09	5.01	636.10	5.39	7.92	5,646.80	3,531.53	-0.27
5/11/2023 3:01:00 PM	94.92	308.11	5.00	636.11	5.39	7.92	5,650.72	3,533.94	-0.27
5/12/2023 3:01:00 AM	95.32	308.07	5.01	636.10	5.39	7.92	5,654.80	3,536.28	-0.28
5/12/2023 3:01:00 PM	95.67	308.05	5.01	636.10	5.39	7.93	5,658.15	3,538.50	-0.28
5/13/2023 3:01:00 AM	95.91	307.99	5.02	636.09	5.39	7.93	5,660.74	3,540.23	-0.28
5/13/2023 3:01:00 PM	96.02	308.02	5.01	636.10	5.39	7.93	5,664.55	3,542.77	-0.28
5/14/2023 3:01:00 AM	96.08	307.97	5.02	636.09	5.39	7.94	5,667.21	3,544.53	-0.28

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/14/2023 3:01:00 PM	95.94	308.03	5.01	636.10	5.39	7.93	5,669.75	3,546.12	-0.28
5/15/2023 3:01:00 AM	95.56	307.99	5.02	636.09	5.39	7.94	5,672.22	3,547.82	-0.29
5/15/2023 3:01:00 PM	94.83	308.08	5.01	636.10	5.39	7.94	5,674.89	3,549.55	-0.29
5/16/2023 3:01:00 AM	94.34	308.12	5.00	636.11	5.39	7.94	5,677.31	3,550.84	-0.29
5/16/2023 3:01:00 PM	94.97	308.08	5.01	636.10	5.39	7.94	5,679.39	3,552.10	-0.29
5/17/2023 3:01:00 AM	95.12	308.13	5.00	636.11	5.39	7.95	5,680.14	3,552.74	-0.29
5/17/2023 3:01:00 PM	94.93	308.02	5.01	636.10	5.39	7.95	5,681.84	3,553.96	-0.29
5/18/2023 3:01:00 AM	95.36	307.99	5.02	636.09	5.39	7.95	5,682.92	3,554.27	-0.29
5/18/2023 3:01:00 PM	95.19	307.98	5.02	636.09	5.39	7.95	5,684.47	3,555.37	-0.29
5/19/2023 3:01:00 AM	94.78	308.03	5.01	636.10	5.39	7.95	5,685.41	3,556.10	-0.29
5/19/2023 3:01:00 PM	94.36	307.95	5.02	636.09	5.39	7.95	5,686.65	3,556.65	-0.30
5/20/2023 3:01:00 AM	94.84	308.09	5.01	636.10	5.39	7.95	5,687.03	3,556.97	-0.30
5/20/2023 3:01:00 PM	94.97	308.06	5.01	636.10	5.39	7.96	5,688.15	3,557.68	-0.30
5/21/2023 3:01:00 AM	94.84	307.98	5.02	636.09	5.39	7.96	5,688.42	3,557.76	-0.30
5/21/2023 3:01:00 PM	94.32	307.95	5.02	636.09	5.39	7.96	5,689.42	3,558.52	-0.30
5/22/2023 3:01:00 AM	93.95	308.08	5.01	636.10	5.39	7.96	5,690.22	3,559.01	-0.30
5/22/2023 3:01:00 PM	93.65	308.10	5.00	636.11	5.39	7.96	5,690.93	3,559.52	-0.30
5/23/2023 3:01:00 AM	93.74	308.29	4.99	636.12	5.39	7.96	5,691.02	3,559.55	-0.30
5/23/2023 3:01:00 PM	94.09	308.23	4.99	636.12	5.39	7.96	5,691.12	3,559.76	-0.30
5/24/2023 3:01:00 AM	94.49	308.25	4.99	636.12	5.39	7.97	5,691.67	3,560.02	-0.30
5/24/2023 3:01:00 PM	94.45	308.29	4.99	636.12	5.39	7.97	5,692.34	3,560.17	-0.30
5/25/2023 3:01:00 AM	94.68	308.30	4.98	636.13	5.39	7.97	5,691.69	3,560.05	-0.30
5/25/2023 3:01:00 PM	94.86	308.20	4.99	636.12	5.39	7.97	5,692.26	3,560.34	-0.30
5/26/2023 3:01:00 AM	94.87	308.32	4.98	636.13	5.39	7.97	5,692.09	3,560.11	-0.30
5/26/2023 3:01:00 PM	94.62	308.22	4.99	636.12	5.39	7.97	5,692.07	3,560.08	-0.31
5/27/2023 3:01:00 AM	94.48	308.27	4.99	636.12	5.39	7.97	5,692.12	3,560.20	-0.31
5/27/2023 3:01:00 PM	94.13	308.24	4.99	636.12	5.39	7.97	5,692.09	3,560.31	-0.31
5/28/2023 3:01:00 AM	93.86	308.30	4.98	636.13	5.39	7.97	5,691.66	3,559.88	-0.31
5/28/2023 3:01:00 PM	93.62	308.26	4.99	636.12	5.39	7.97	5,692.15	3,560.17	-0.31
5/29/2023 3:01:00 AM	93.85	308.31	4.98	636.13	5.39	7.97	5,692.10	3,560.18	-0.31
5/29/2023 3:01:00 PM	93.53	308.31	4.98	636.13	5.39	7.98	5,692.78	3,560.58	-0.31
5/30/2023 3:01:00 AM	93.93	308.31	4.98	636.13	5.39	7.98	5,692.80	3,560.72	-0.31
5/30/2023 3:01:00 PM	93.67	308.33	4.98	636.13	5.39	7.98	5,692.40	3,560.45	-0.31
5/31/2023 3:01:00 AM	94.09	308.21	4.99	636.12	5.39	7.98	5,692.45	3,560.33	-0.31
5/31/2023 3:01:00 PM	94.02	308.26	4.99	636.12	5.39	7.98	5,692.57	3,560.53	-0.31
6/1/2023 3:02:00 AM	94.23	308.27	4.99	636.12	5.39	7.98	5,692.81	3,560.81	-0.31
6/1/2023 3:02:00 PM	94.64	308.21	4.99	636.12	5.39	7.98	5,693.44	3,561.18	-0.31
6/2/2023 3:02:00 AM	94.76	308.28	4.99	636.12	5.39	7.98	5,693.85	3,561.33	-0.32
6/2/2023 3:02:00 PM	94.94	308.16	5.00	636.11	5.39	7.99	5,694.64	3,562.04	-0.32
6/3/2023 3:02:00 AM	95.06	308.27	4.99	636.12	5.39	7.99	5,694.86	3,561.93	-0.32
6/3/2023 3:02:00 PM	95.01	308.13	5.00	636.11	5.39	7.99	5,695.41	3,562.25	-0.32
6/4/2023 3:02:00 AM	94.78	308.17	5.00	636.11	5.39	7.99	5,694.82	3,562.06	-0.32
6/4/2023 3:02:00 PM	94.49	308.17	5.00	636.11	5.39	7.99	5,695.77	3,562.50	-0.32
6/5/2023 3:02:00 AM	94.56	308.19	5.00	636.11	5.39	7.99	5,695.96	3,562.41	-0.32
6/5/2023 3:02:00 PM	94.31	308.12	5.00	636.11	5.39	7.99	5,696.13	3,562.69	-0.32
6/6/2023 3:02:00 AM	94.93	308.23	4.99	636.12	5.39	7.99	5,695.96	3,562.61	-0.32
6/6/2023 3:02:00 PM	94.67	308.08	5.01	636.10	5.39	7.99	5,696.35	3,563.17	-0.32
6/7/2023 3:02:00 AM	94.37	308.15	5.00	636.11	5.39	7.99	5,696.17	3,562.76	-0.32
6/7/2023 3:02:00 PM	94.30	308.11	5.00	636.11	5.39	7.99	5,696.85	3,563.15	-0.32
6/8/2023 3:02:00 AM	94.68	308.10	5.00	636.11	5.39	7.99	5,696.95	3,563.25	-0.32
6/8/2023 3:02:00 PM	94.86	308.05	5.01	636.10	5.39	7.99	5,697.28	3,563.42	-0.33
6/9/2023 3:02:00 AM	94.93	308.07	5.01	636.10	5.39	7.99	5,697.35	3,563.53	-0.33
6/9/2023 3:02:00 PM	94.80	307.99	5.02	636.09	5.39	7.99	5,697.68	3,563.72	-0.33
6/10/2023 3:02:00 AM	94.64	308.12	5.00	636.11	5.39	8.00	5,698.47	3,564.25	-0.33
6/10/2023 3:02:00 PM	94.38	308.08	5.01	636.10	5.39	7.99	5,698.39	3,564.00	-0.33
6/11/2023 3:02:00 AM	94.14	308.02	5.01	636.10	5.39	7.99	5,698.34	3,564.21	-0.33
6/11/2023 3:02:00 PM	94.41	307.91	5.02	636.09	5.39	7.99	5,699.51	3,564.82	-0.33
6/12/2023 3:02:00 AM	94.68	307.98	5.02	636.09	5.39	7.99	5,699.02	3,564.61	-0.33
6/12/2023 3:02:00 PM	94.49	307.86	5.03	636.08	5.39	7.99	5,700.40	3,565.37	-0.33
6/13/2023 3:02:00 AM	94.14	307.95	5.02	636.09	5.39	7.99	5,700.01	3,565.13	-0.34
6/13/2023 3:02:00 PM	93.37	307.95	5.02	636.09	5.39	7.99	5,701.04	3,566.01	-0.34
6/14/2023 3:02:00 AM	93.04	308.06	5.01	636.10	5.39	8.00	5,700.83	3,565.67	-0.34
6/14/2023 3:02:00 PM	93.16	308.04	5.01	636.10	5.39	8.00	5,701.73	3,566.49	-0.34
6/15/2023 3:02:00 AM	93.45	308.22	4.99	636.12	5.39	8.00	5,702.26	3,566.72	-0.34
6/15/2023 3:02:00 PM	94.28	308.26	4.99	636.12	5.39	8.00	5,701.83	3,566.41	-0.35
6/16/2023 3:02:00 AM	94.43	308.32	4.98	636.13	5.39	8.00	5,702.32	3,566.75	-0.35
6/16/2023 3:02:00 PM	93.89	308.35	4.98	636.13	5.39	8.00	5,703.88	3,567.78	-0.35
6/17/2023 3:02:00 AM	93.93	308.40	4.97	636.14	5.39	8.00	5,704.29	3,568.17	-0.35
6/17/2023 3:02:00 PM	93.84	308.35	4.98	636.13	5.39	8.00	5,704.61	3,568.25	-0.35
6/18/2023 3:02:00 AM	93.60	308.42	4.97	636.14	5.39	8.00	5,704.81	3,568.23	-0.36

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/18/2023 3:02:00 PM	93.22	308.44	4.97	636.14	5.39	8.00	5,705.59	3,568.87	-0.36
6/19/2023 3:02:00 AM	92.51	308.61	4.95	636.16	5.39	8.00	5,706.23	3,569.33	-0.37
6/19/2023 3:02:00 PM	92.89	308.80	4.93	636.18	5.39	8.00	5,706.93	3,569.63	-0.37
6/20/2023 3:02:00 AM	93.70	308.82	4.93	636.18	5.39	8.00	5,706.95	3,569.68	-0.37
6/20/2023 3:02:00 PM	94.51	308.70	4.94	636.17	5.39	8.00	5,706.92	3,569.55	-0.38
6/21/2023 3:02:00 AM	94.65	308.78	4.93	636.18	5.39	8.00	5,707.34	3,569.86	-0.38
6/21/2023 3:02:00 PM	94.65	308.69	4.94	636.17	5.39	8.00	5,707.16	3,569.86	-0.38
6/22/2023 3:02:00 AM	94.71	308.77	4.94	636.17	5.39	8.01	5,707.24	3,569.87	-0.39
6/22/2023 3:02:00 PM	94.58	308.71	4.94	636.17	5.39	8.00	5,708.68	3,570.59	-0.39
6/23/2023 3:02:00 AM	94.48	308.63	4.95	636.16	5.39	8.00	5,708.25	3,570.45	-0.40
6/23/2023 3:02:00 PM	94.42	308.68	4.95	636.16	5.40	8.01	5,709.70	3,571.73	-0.41
6/24/2023 3:02:00 AM	94.44	308.72	4.94	636.17	5.39	8.01	5,709.36	3,571.34	-0.42
6/24/2023 3:02:00 PM	94.36	308.65	4.95	636.16	5.39	8.01	5,710.36	3,571.68	-0.43
6/25/2023 3:02:00 AM	94.36	308.81	4.93	636.18	5.39	8.01	5,711.04	3,572.33	-0.44
6/25/2023 3:02:00 PM	94.67	308.66	4.95	636.16	5.39	8.01	5,712.47	3,573.06	-0.47
6/26/2023 3:02:00 AM	94.62	308.65	4.95	636.16	5.39	8.01	5,713.18	3,573.64	-0.48
6/26/2023 3:02:00 PM	94.25	308.69	4.94	636.17	5.39	8.01	5,713.75	3,573.90	-0.49
6/27/2023 3:02:00 AM	94.09	308.71	4.94	636.17	5.39	8.01	5,714.11	3,574.09	-0.49
6/27/2023 3:02:00 PM	94.04	308.62	4.95	636.16	5.39	8.01	5,714.18	3,574.19	-0.49
6/28/2023 3:02:00 AM	94.30	308.63	4.95	636.16	5.39	8.01	5,714.39	3,574.38	-0.49
6/28/2023 3:02:00 PM	94.38	308.56	4.96	636.15	5.39	8.01	5,714.48	3,574.38	-0.50
6/29/2023 3:02:00 AM	94.35	308.61	4.95	636.16	5.39	8.01	5,713.96	3,574.12	-0.49
6/29/2023 3:02:00 PM	94.33	308.59	4.95	636.16	5.39	8.01	5,714.67	3,574.49	-0.50
6/30/2023 3:02:00 AM	94.42	308.57	4.96	636.15	5.39	8.01	5,714.48	3,574.45	-0.50
6/30/2023 3:02:00 PM	94.42	308.52	4.96	636.15	5.39	8.01	5,714.68	3,574.50	-0.50
7/1/2023 3:02:00 AM	94.47	308.55	4.96	636.15	5.39	8.01	5,714.30	3,574.35	-0.50
7/1/2023 3:02:00 PM	94.28	308.59	4.95	636.16	5.39	8.01	5,714.66	3,574.45	-0.50
7/2/2023 3:02:00 AM	94.12	308.68	4.95	636.16	5.39	8.01	5,715.33	3,574.90	-0.50
7/2/2023 3:02:00 PM	94.27	308.57	4.96	636.15	5.39	8.00	5,714.83	3,574.65	-0.50
7/3/2023 3:02:00 AM	94.39	308.62	4.95	636.16	5.39	8.01	5,715.31	3,574.98	-0.50
7/3/2023 3:02:00 PM	94.82	308.64	4.95	636.16	5.39	8.00	5,714.98	3,574.75	-0.50
7/4/2023 3:02:00 AM	95.25	308.59	4.95	636.16	5.39	8.01	5,715.27	3,574.94	-0.50
7/4/2023 3:02:00 PM	95.23	308.57	4.96	636.15	5.39	8.01	5,715.11	3,574.76	-0.50
7/5/2023 3:02:00 AM	94.96	308.57	4.96	636.15	5.39	8.01	5,715.51	3,574.97	-0.50
7/5/2023 3:02:00 PM	94.67	308.56	4.96	636.15	5.39	8.00	5,715.59	3,575.13	-0.50
7/6/2023 3:02:00 AM	94.55	308.67	4.95	636.16	5.39	8.01	5,715.60	3,575.14	-0.50
7/6/2023 3:02:00 PM	94.65	308.54	4.96	636.15	5.39	8.01	5,716.16	3,575.41	-0.50
7/7/2023 3:02:00 AM	94.86	308.60	4.95	636.16	5.40	8.01	5,715.61	3,575.35	-0.50
7/7/2023 3:02:00 PM	94.96	308.53	4.96	636.15	5.39	8.01	5,715.84	3,575.36	-0.50
7/8/2023 3:02:00 AM	94.68	308.44	4.97	636.14	5.39	8.01	5,716.09	3,575.44	-0.50
7/8/2023 3:02:00 PM	94.31	308.48	4.97	636.14	5.39	8.01	5,715.97	3,575.40	-0.50
7/9/2023 3:02:00 AM	94.09	308.57	4.96	636.15	5.39	8.01	5,716.36	3,575.64	-0.50
7/9/2023 3:02:00 PM	94.04	308.50	4.96	636.15	5.39	8.01	5,716.41	3,575.61	-0.50
7/10/2023 3:02:00 AM	94.21	308.52	4.96	636.15	5.39	8.01	5,716.66	3,575.80	-0.50
7/10/2023 3:02:00 PM	94.57	308.55	4.96	636.15	5.39	8.01	5,716.55	3,575.78	-0.50
7/11/2023 3:02:00 AM	94.47	308.65	4.95	636.16	5.39	8.00	5,716.89	3,576.00	-0.50
7/11/2023 3:02:00 PM	94.44	308.54	4.96	636.15	5.39	8.01	5,716.68	3,575.59	-0.49
7/12/2023 3:02:00 AM	94.35	308.55	4.96	636.15	5.39	8.01	5,716.62	3,575.73	-0.49
7/12/2023 3:02:00 PM	94.24	308.54	4.96	636.15	5.39	8.01	5,716.58	3,575.73	-0.49
7/13/2023 3:02:00 AM	94.27	308.54	4.96	636.15	5.39	8.01	5,716.59	3,575.76	-0.49
7/13/2023 3:02:00 PM	94.42	308.54	4.96	636.15	5.39	8.01	5,716.84	3,575.75	-0.49
7/14/2023 3:02:00 AM	94.57	308.52	4.96	636.15	5.39	8.01	5,716.44	3,575.66	-0.49
7/14/2023 3:02:00 PM	94.86	308.44	4.97	636.14	5.39	8.01	5,716.60	3,575.71	-0.49
7/15/2023 3:02:00 AM	94.82	308.39	4.97	636.14	5.39	8.01	5,716.35	3,575.52	-0.49
7/15/2023 3:02:00 PM	94.73	308.44	4.97	636.14	5.39	8.01	5,716.10	3,575.42	-0.49
7/16/2023 3:02:00 AM	94.78	308.41	4.97	636.14	5.39	8.01	5,716.50	3,575.71	-0.49
7/16/2023 3:02:00 PM	94.68	308.36	4.98	636.13	5.39	8.01	5,716.97	3,576.01	-0.49
7/17/2023 3:02:00 AM	94.38	308.47	4.97	636.14	5.39	8.02	5,717.00	3,575.91	-0.49
7/17/2023 3:02:00 PM	93.86	308.49	4.97	636.14	5.39	8.02	5,716.77	3,575.87	-0.49
7/18/2023 3:02:00 AM	93.73	308.67	4.95	636.16	5.39	8.02	5,717.11	3,576.13	-0.49
7/18/2023 3:02:00 PM	94.44	308.70	4.94	636.17	5.39	8.02	5,717.64	3,576.42	-0.49
7/19/2023 3:02:00 AM	95.08	308.80	4.93	636.18	5.39	8.02	5,717.82	3,576.47	-0.49
7/19/2023 3:02:00 PM	95.31	308.72	4.94	636.17	5.39	8.02	5,718.47	3,576.86	-0.49
7/20/2023 3:02:00 AM	95.28	308.83	4.93	636.18	5.39	8.02	5,718.39	3,577.01	-0.49
7/20/2023 3:02:00 PM	95.23	308.81	4.93	636.18	5.39	8.02	5,718.50	3,577.01	-0.50
7/21/2023 3:02:00 AM	95.05	308.85	4.93	636.18	5.39	8.02	5,718.18	3,576.85	-0.50
7/21/2023 3:02:00 PM	94.91	308.73	4.94	636.17	5.39	8.02	5,718.85	3,577.13	-0.50
7/22/2023 3:02:00 AM	94.71	308.79	4.93	636.18	5.39	8.02	5,718.87	3,577.15	-0.50
7/22/2023 3:02:00 PM	94.40	308.79	4.93	636.18	5.39	8.02	5,719.43	3,577.49	-0.50
7/23/2023 3:02:00 AM	94.49	308.80	4.93	636.18	5.39	8.01	5,719.36	3,577.65	-0.50

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/23/2023 3:03:00 PM	94.55	308.80	4.93	636.18	5.39	8.02	5,719.99	3,577.74	-0.50
7/24/2023 3:03:00 AM	94.70	308.77	4.94	636.17	5.39	8.02	5,719.78	3,577.62	-0.50
7/24/2023 3:03:00 PM	94.13	308.89	4.92	636.19	5.39	8.02	5,719.43	3,577.58	-0.50
7/25/2023 3:03:00 AM	93.69	308.95	4.92	636.19	5.39	8.02	5,719.81	3,577.78	-0.50
7/25/2023 3:03:00 PM	94.14	308.96	4.92	636.19	5.39	8.02	5,719.85	3,577.85	-0.50
7/26/2023 3:03:00 AM	94.15	308.96	4.92	636.19	5.39	8.02	5,720.02	3,577.88	-0.50
7/26/2023 3:03:00 PM	93.96	309.01	4.91	636.20	5.39	8.02	5,719.78	3,577.76	-0.50
7/27/2023 3:03:00 AM	94.49	309.05	4.91	636.20	5.39	8.02	5,720.16	3,577.95	-0.50
7/27/2023 3:03:00 PM	95.24	308.93	4.92	636.19	5.39	8.02	5,719.77	3,577.82	-0.50
7/28/2023 3:03:00 AM	95.53	308.95	4.92	636.19	5.39	8.02	5,719.56	3,577.66	-0.50
7/28/2023 3:03:00 PM	95.64	308.75	4.94	636.17	5.39	8.02	5,719.92	3,577.85	-0.50
7/29/2023 3:03:00 AM	95.53	308.84	4.93	636.18	5.39	8.02	5,720.42	3,578.12	-0.50
7/29/2023 3:03:00 PM	95.29	308.80	4.93	636.18	5.39	8.02	5,720.21	3,578.02	-0.50
7/30/2023 3:03:00 AM	94.98	308.91	4.92	636.19	5.39	8.02	5,720.39	3,578.07	-0.50
7/30/2023 3:03:00 PM	94.56	308.80	4.93	636.18	5.39	8.02	5,720.32	3,578.01	-0.50
7/31/2023 3:03:00 AM	94.52	309.00	4.91	636.20	5.39	8.02	5,720.74	3,578.30	-0.50
7/31/2023 3:03:00 PM	94.52	308.98	4.92	636.19	5.39	8.02	5,720.87	3,578.43	-0.50
8/1/2023 3:03:00 AM	94.75	309.00	4.91	636.20	5.39	8.02	5,720.92	3,578.52	-0.50
8/1/2023 3:03:00 PM	94.80	308.95	4.92	636.19	5.39	8.02	5,720.35	3,578.16	-0.50
8/2/2023 3:03:00 AM	94.90	308.98	4.92	636.19	5.39	8.02	5,720.52	3,578.28	-0.50
8/2/2023 3:03:00 PM	95.00	308.93	4.92	636.19	5.39	8.02	5,720.53	3,578.27	-0.50
8/3/2023 3:03:00 AM	95.04	308.96	4.92	636.19	5.39	8.02	5,720.66	3,578.37	-0.50
8/3/2023 3:03:00 PM	94.86	308.94	4.92	636.19	5.39	8.02	5,720.80	3,578.39	-0.50
8/4/2023 3:03:00 AM	95.11	309.00	4.91	636.20	5.39	8.02	5,721.13	3,578.70	-0.50
8/4/2023 3:03:00 PM	95.20	308.97	4.92	636.19	5.39	8.02	5,721.32	3,578.71	-0.50
8/5/2023 3:03:00 AM	95.46	308.95	4.92	636.19	5.39	8.02	5,720.89	3,578.54	-0.50
8/5/2023 3:03:00 PM	95.62	308.87	4.93	636.18	5.39	8.02	5,721.41	3,578.76	-0.50
8/6/2023 3:03:00 AM	95.50	308.90	4.92	636.19	5.39	8.02	5,721.42	3,578.81	-0.50
8/6/2023 3:03:00 PM	95.27	308.95	4.88	636.23	5.39	8.02	5,721.23	3,578.73	-0.50
8/7/2023 3:03:00 AM	94.94	308.87	4.89	636.22	5.39	8.02	5,721.06	3,578.67	-0.50
8/7/2023 3:03:00 PM	-	-	-	-	5.45	7.99	5,638.85	3,533.21	-0.27
8/8/2023 3:03:00 AM	94.66	308.90	4.89	636.22	5.41	7.95	5,632.58	3,524.72	-0.29
8/8/2023 3:03:00 PM	94.47	309.09	4.87	636.24	5.40	7.94	5,636.57	3,526.91	-0.30
8/9/2023 3:03:00 AM	94.22	309.12	4.87	636.24	5.40	7.93	5,639.73	3,528.64	-0.31
8/9/2023 3:03:00 PM	93.77	309.13	4.87	636.24	5.40	7.94	5,641.27	3,529.68	-0.31
8/10/2023 3:03:00 AM	93.30	309.29	4.85	636.26	5.40	7.94	5,644.07	3,531.24	-0.31
8/10/2023 3:03:00 PM	93.39	309.28	4.85	636.26	5.40	7.95	5,645.80	3,531.83	-0.32
8/11/2023 3:03:00 AM	93.88	309.30	4.85	636.26	5.40	7.95	5,647.14	3,532.66	-0.32
8/11/2023 3:03:00 PM	94.23	309.22	4.86	636.25	5.40	7.96	5,649.80	3,534.37	-0.32
8/12/2023 3:03:00 AM	94.42	309.27	4.85	636.26	5.40	7.96	5,652.51	3,536.20	-0.32
8/12/2023 3:03:00 PM	94.74	309.12	4.87	636.24	5.40	7.96	5,654.76	3,537.57	-0.33
8/13/2023 3:03:00 AM	95.14	309.12	4.87	636.24	5.40	7.97	5,657.03	3,538.93	-0.33
8/13/2023 3:03:00 PM	94.92	309.16	4.86	636.25	5.40	7.97	5,658.90	3,540.10	-0.33
8/14/2023 3:03:00 AM	94.76	309.05	4.87	636.24	5.40	7.97	5,662.19	3,542.00	-0.33
8/14/2023 3:03:00 PM	94.79	309.07	4.87	636.24	5.40	7.97	5,664.16	3,543.34	-0.33
8/15/2023 3:03:00 AM	94.86	309.01	4.88	636.23	5.40	7.98	5,666.30	3,544.68	-0.33
8/15/2023 3:03:00 PM	94.09	309.05	4.87	636.24	5.40	7.98	5,669.58	3,546.72	-0.34
8/16/2023 3:03:00 AM	94.40	309.20	4.86	636.25	5.40	7.98	5,673.13	3,548.99	-0.34
8/16/2023 3:03:00 PM	94.60	309.09	4.87	636.24	5.40	7.98	5,676.34	3,551.07	-0.34
8/17/2023 3:03:00 AM	94.07	309.11	4.87	636.24	5.40	7.99	5,679.96	3,553.25	-0.34
8/17/2023 3:03:00 PM	93.44	309.20	4.86	636.25	5.40	7.99	5,683.26	3,555.27	-0.34
8/18/2023 3:03:00 AM	93.32	309.25	4.85	636.26	5.40	7.99	5,686.52	3,557.31	-0.35
8/18/2023 3:03:00 PM	93.69	309.14	4.86	636.25	5.40	7.99	5,689.78	3,559.28	-0.35
8/19/2023 3:03:00 AM	94.69	309.18	4.86	636.25	5.40	7.99	5,693.57	3,561.74	-0.35
8/19/2023 3:03:00 PM	95.14	309.19	4.86	636.25	5.40	7.99	5,698.38	3,564.81	-0.35
8/20/2023 3:03:00 AM	95.33	309.09	4.87	636.24	5.40	7.99	5,699.16	3,565.26	-0.36
8/20/2023 3:03:00 PM	95.17	309.14	4.86	636.25	5.40	7.99	5,698.61	3,564.95	-0.36
8/21/2023 3:03:00 AM	95.08	309.16	4.86	636.25	5.40	8.00	5,698.67	3,564.87	-0.36
8/21/2023 3:03:00 PM	94.99	309.23	4.86	636.25	5.40	8.00	5,698.23	3,564.63	-0.36
8/22/2023 3:03:00 AM	94.83	309.18	4.86	636.25	5.40	8.00	5,698.27	3,564.61	-0.37
8/22/2023 3:03:00 PM	94.73	309.14	4.86	636.25	5.40	8.00	5,698.55	3,564.74	-0.37
8/23/2023 3:03:00 AM	94.53	309.16	4.86	636.25	5.40	8.00	5,698.23	3,564.63	-0.38
8/23/2023 3:03:00 PM	94.20	309.12	4.87	636.24	5.40	8.00	5,698.30	3,564.63	-0.38
8/24/2023 3:03:00 AM	94.09	309.22	4.86	636.25	5.40	8.00	5,698.30	3,564.64	-0.39
8/24/2023 3:03:00 PM	95.01	309.20	4.86	636.25	5.40	8.01	5,698.37	3,564.78	-0.41
8/25/2023 3:03:00 AM	95.51	309.16	4.86	636.25	5.40	8.01	5,698.84	3,564.94	-0.43
8/25/2023 3:03:00 PM	95.33	309.11	4.87	636.24	5.40	8.01	5,698.80	3,565.06	-0.48
8/26/2023 3:03:00 AM	94.87	309.12	4.87	636.24	5.40	8.01	5,698.97	3,565.06	-0.50
8/26/2023 3:03:00 PM	94.64	309.12	4.87	636.24	5.40	8.01	5,699.29	3,565.13	-0.51
8/27/2023 3:03:00 AM	94.87	309.09	4.87	636.24	5.40	8.01	5,699.05	3,565.08	-0.52

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/27/2023 3:03:00 PM	94.96	309.10	4.87	636.24	5.40	8.01	5,699.04	3,565.05	-0.52
8/28/2023 3:03:00 AM	94.88	309.04	4.88	636.23	5.40	8.01	5,699.23	3,565.09	-0.52
8/28/2023 3:03:00 PM	94.91	309.07	4.87	636.24	5.40	8.02	5,700.07	3,565.68	-0.53
8/29/2023 3:03:00 AM	94.84	309.15	4.86	636.25	5.40	8.02	5,699.71	3,565.51	-0.53
8/29/2023 3:03:00 PM	94.40	309.12	4.87	636.24	5.40	8.02	5,699.72	3,565.60	-0.53
8/30/2023 3:03:00 AM	93.90	309.05	4.87	636.24	5.40	8.02	5,699.64	3,565.53	-0.53
8/30/2023 3:03:00 PM	93.55	309.13	4.87	636.24	5.40	8.02	5,699.82	3,565.67	-0.53
8/31/2023 3:03:00 AM	93.53	309.13	4.87	636.24	5.40	8.02	5,699.96	3,565.68	-0.53
8/31/2023 3:03:00 PM	93.65	309.08	4.87	636.24	5.40	8.02	5,700.33	3,565.86	-0.53
9/1/2023 3:03:00 AM	94.02	309.12	4.87	636.24	5.40	8.02	5,700.33	3,565.93	-0.53
9/1/2023 3:03:00 PM	93.87	309.18	4.86	636.25	5.39	8.02	5,700.34	3,565.76	-0.53
9/2/2023 3:03:00 AM	93.44	309.08	4.87	636.24	5.40	8.02	5,699.95	3,565.69	-0.53
9/2/2023 3:03:00 PM	93.77	309.14	4.86	636.25	5.40	8.03	5,699.99	3,565.68	-0.53
9/3/2023 3:03:00 AM	93.98	309.11	4.87	636.24	5.40	8.03	5,700.16	3,565.67	-0.53
9/3/2023 3:03:00 PM	93.76	309.19	4.86	636.25	5.39	8.03	5,700.47	3,565.83	-0.53
9/4/2023 3:03:00 AM	94.08	309.04	4.88	636.23	5.40	8.03	5,700.44	3,565.88	-0.53
9/4/2023 3:03:00 PM	94.56	309.07	4.87	636.24	5.40	8.03	5,700.13	3,565.76	-0.53
9/5/2023 3:03:00 AM	94.85	309.05	4.87	636.24	5.40	8.03	5,700.47	3,565.93	-0.53
9/5/2023 3:03:00 PM	94.49	309.02	4.88	636.23	5.40	8.03	5,700.61	3,566.02	-0.53
9/6/2023 3:03:00 AM	94.29	309.09	4.87	636.24	5.40	8.03	5,700.41	3,565.96	-0.53
9/6/2023 3:03:00 PM	94.29	309.09	4.87	636.24	5.40	8.03	5,700.27	3,565.74	-0.53
9/7/2023 3:03:00 AM	94.32	309.00	4.88	636.23	5.40	8.03	5,699.69	3,565.47	-0.53
9/7/2023 3:03:00 PM	94.55	308.94	4.89	636.22	5.40	8.03	5,699.79	3,565.51	-0.53
9/8/2023 3:03:00 AM	94.90	308.96	4.88	636.23	5.40	8.03	5,700.03	3,565.61	-0.53
9/8/2023 3:03:00 PM	95.18	308.90	4.89	636.22	5.40	8.03	5,700.38	3,565.80	-0.53
9/9/2023 3:03:00 AM	95.49	308.88	4.89	636.22	5.40	8.04	5,700.14	3,565.75	-0.53
9/9/2023 3:03:00 PM	95.60	308.83	4.90	636.21	5.39	8.04	5,701.18	3,566.26	-0.53
9/10/2023 3:03:00 AM	95.50	308.82	4.90	636.21	5.40	8.04	5,701.19	3,566.48	-0.53
9/10/2023 3:03:00 PM	95.22	308.83	4.90	636.21	5.40	8.04	5,701.51	3,566.57	-0.54
9/11/2023 3:03:00 AM	94.95	308.89	4.89	636.22	5.40	8.04	5,702.65	3,567.33	-0.54
9/11/2023 3:03:00 PM	94.51	308.83	4.90	636.21	5.40	8.04	5,703.56	3,567.84	-0.54
9/12/2023 3:03:00 AM	94.18	308.95	4.88	636.23	5.40	8.04	5,703.48	3,568.00	-0.54
9/12/2023 3:03:00 PM	94.12	308.93	4.89	636.22	5.40	8.04	5,703.78	3,568.09	-0.54
9/13/2023 3:03:00 AM	94.09	308.94	4.89	636.22	5.40	8.04	5,703.99	3,568.23	-0.55
9/13/2023 3:03:00 PM	94.22	308.93	4.89	636.22	5.40	8.04	5,703.66	3,567.92	-0.55
9/14/2023 3:03:00 AM	94.67	308.84	4.89	636.22	5.40	8.04	5,703.46	3,568.05	-0.55
9/14/2023 3:04:00 PM	95.00	308.74	4.90	636.21	5.40	8.04	5,703.72	3,568.16	-0.55
9/15/2023 3:04:00 AM	95.02	308.78	4.90	636.21	5.40	8.04	5,703.55	3,568.04	-0.55
9/15/2023 3:04:00 PM	94.51	308.77	4.90	636.21	5.40	8.04	5,703.50	3,567.93	-0.55
9/16/2023 3:04:00 AM	94.18	308.90	4.89	636.22	5.40	8.04	5,704.36	3,568.30	-0.55
9/16/2023 3:04:00 PM	94.45	308.79	4.90	636.21	5.40	8.04	5,703.81	3,568.22	-0.55
9/17/2023 3:04:00 AM	93.83	308.85	4.89	636.22	5.40	8.04	5,704.34	3,568.43	-0.55
9/17/2023 3:04:00 PM	93.55	308.92	4.89	636.22	5.40	8.04	5,704.41	3,568.51	-0.55
9/18/2023 3:04:00 AM	93.46	308.92	4.89	636.22	5.40	8.04	5,704.21	3,568.68	-0.55
9/18/2023 3:04:00 PM	93.80	308.92	4.89	636.22	5.40	8.05	5,704.46	3,568.63	-0.55
9/19/2023 3:04:00 AM	94.09	308.89	4.89	636.22	5.40	8.05	5,704.81	3,568.89	-0.55
9/19/2023 3:04:00 PM	94.02	308.89	4.89	636.22	5.40	8.05	5,704.62	3,568.78	-0.56
9/20/2023 3:04:00 AM	94.33	308.85	4.89	636.22	5.40	8.05	5,704.85	3,568.86	-0.56
9/20/2023 3:04:00 PM	94.82	308.78	4.90	636.21	5.40	8.05	5,705.26	3,569.02	-0.56
9/21/2023 3:04:00 AM	95.29	308.67	4.91	636.20	5.40	8.05	5,705.35	3,569.14	-0.56
9/21/2023 3:04:00 PM	95.20	308.73	4.91	636.20	5.40	8.05	5,705.53	3,569.33	-0.56
9/22/2023 3:04:00 AM	95.00	308.74	4.90	636.21	5.40	8.05	5,705.27	3,569.20	-0.56
9/22/2023 3:04:00 PM	94.68	308.76	4.90	636.21	5.40	8.05	5,705.30	3,569.19	-0.56
9/23/2023 3:04:00 AM	94.35	308.75	4.90	636.21	5.40	8.05	5,705.65	3,569.35	-0.56
9/23/2023 3:04:00 PM	94.02	308.80	4.90	636.21	5.40	8.05	5,705.79	3,569.41	-0.56
9/24/2023 3:04:00 AM	93.80	308.78	4.90	636.21	5.40	8.05	5,706.22	3,569.84	-0.56
9/24/2023 3:04:00 PM	94.20	308.79	4.90	636.21	5.40	8.05	5,706.25	3,569.75	-0.56
9/25/2023 3:04:00 AM	94.58	308.80	4.90	636.21	5.40	8.05	5,706.66	3,569.97	-0.56
9/25/2023 3:04:00 PM	94.34	308.77	4.90	636.21	5.40	8.05	5,706.67	3,570.04	-0.56
9/26/2023 3:04:00 AM	93.73	308.77	4.90	636.21	5.40	8.05	5,706.59	3,569.97	-0.56
9/26/2023 3:04:00 PM	93.78	308.75	4.90	636.21	5.40	8.06	5,706.71	3,570.06	-0.56
9/27/2023 3:04:00 AM	93.96	308.76	4.90	636.21	5.40	8.06	5,707.00	3,570.29	-0.56
9/27/2023 3:04:00 PM	93.93	308.74	4.91	636.20	5.40	8.06	5,707.05	3,570.28	-0.56
9/28/2023 3:04:00 AM	94.07	308.78	4.90	636.21	5.40	8.06	5,707.29	3,570.49	-0.57
9/28/2023 3:04:00 PM	93.95	308.77	4.90	636.21	5.40	8.06	5,707.76	3,570.66	-0.57
9/29/2023 3:04:00 AM	94.08	308.79	4.90	636.21	5.40	8.06	5,707.38	3,570.63	-0.57
9/29/2023 3:04:00 PM	94.46	308.81	4.90	636.21	5.40	8.06	5,707.31	3,570.53	-0.57
9/30/2023 3:04:00 AM	95.01	308.67	4.91	636.20	5.40	8.06	5,707.91	3,570.94	-0.57
9/30/2023 3:04:00 PM	95.29	308.71	4.91	636.20	5.40	8.06	5,708.26	3,571.03	-0.57
10/1/2023 3:04:00 AM	95.37	308.62	4.92	636.19	5.40	8.06	5,708.43	3,571.19	-0.57

Table D.3 Summary of 2023 Continuous Water Quality Measurements at UL3/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/1/2023 3:04:00 PM	94.82	308.68	4.91	636.20	5.40	8.06	5,708.09	3,570.96	-0.57
10/2/2023 3:04:00 AM	94.17	308.77	4.90	636.21	5.40	8.06	5,708.22	3,571.08	-0.57
10/2/2023 3:04:00 PM	93.85	308.74	4.91	636.20	5.40	8.06	5,708.69	3,571.35	-0.57
10/3/2023 3:04:00 AM	94.07	308.76	4.90	636.21	5.40	8.06	5,708.65	3,571.24	-0.57
10/3/2023 3:04:00 PM	94.21	308.75	4.90	636.21	5.40	8.06	5,708.52	3,571.20	-0.57
10/4/2023 3:04:00 AM	93.84	308.69	4.91	636.20	5.40	8.06	5,708.85	3,571.54	-0.57
10/4/2023 3:04:00 PM	94.43	308.71	4.91	636.20	5.40	8.06	5,709.06	3,571.52	-0.57
10/5/2023 3:04:00 AM	95.36	308.65	4.91	636.20	5.40	8.06	5,709.35	3,571.74	-0.58
10/5/2023 3:04:00 PM	96.01	308.60	4.92	636.19	5.40	8.06	5,709.11	3,571.66	-0.58
10/6/2023 3:04:00 AM	95.93	308.57	4.92	636.19	5.40	8.06	5,709.64	3,571.84	-0.58
10/6/2023 3:04:00 PM	94.83	308.70	4.91	636.20	5.40	8.06	5,709.44	3,571.85	-0.58
10/7/2023 3:04:00 AM	94.71	308.68	4.91	636.20	5.40	8.07	5,709.90	3,572.00	-0.58
10/7/2023 3:04:00 PM	94.65	308.74	4.91	636.20	5.40	8.07	5,709.46	3,571.81	-0.58
10/8/2023 3:04:00 AM	94.29	308.68	4.91	636.20	5.40	8.07	5,710.22	3,572.21	-0.58
10/8/2023 3:04:00 PM	93.99	308.77	4.90	636.21	5.40	8.07	5,710.24	3,572.17	-0.58
10/9/2023 3:04:00 AM	93.69	308.70	4.91	636.20	5.40	8.07	5,710.06	3,572.13	-0.58
10/9/2023 3:04:00 PM	93.31	308.76	4.90	636.21	5.40	8.07	5,710.25	3,572.22	-0.58
10/10/2023 3:04:00 AM	93.03	308.78	4.90	636.21	5.40	8.07	5,710.38	3,572.38	-0.58
10/10/2023 3:04:00 PM	92.73	308.85	4.89	636.22	5.40	8.07	5,710.13	3,572.26	-0.58
10/11/2023 3:04:00 AM	92.93	308.81	4.90	636.21	5.40	8.07	5,710.82	3,572.64	-0.58
10/11/2023 3:04:00 PM	93.44	308.80	4.90	636.21	5.40	8.07	5,710.88	3,572.66	-0.58
10/12/2023 3:04:00 AM	94.45	308.72	4.91	636.20	5.40	8.07	5,710.66	3,572.51	-0.58
10/12/2023 3:04:00 PM	95.22	308.69	4.91	636.20	5.40	8.07	5,710.77	3,572.56	-0.58
10/13/2023 3:04:00 AM	95.47	308.60	4.92	636.19	5.40	8.07	5,710.45	3,572.56	-0.58
10/13/2023 3:04:00 PM	95.15	308.67	4.91	636.20	5.40	8.07	5,711.08	3,572.77	-0.58
10/14/2023 3:04:00 AM	94.88	308.66	4.91	636.20	5.40	8.07	5,711.37	3,572.99	-0.58
10/14/2023 3:04:00 PM	94.93	308.62	4.92	636.19	5.40	8.07	5,711.10	3,572.85	-0.58
10/15/2023 3:04:00 AM	94.96	308.60	4.92	636.19	5.40	8.07	5,711.24	3,573.00	-0.58
10/15/2023 3:04:00 PM	94.88	308.54	4.93	636.18	5.40	8.07	5,711.20	3,572.95	-0.58
10/16/2023 3:04:00 AM	95.00	308.65	4.91	636.20	5.40	8.07	5,711.76	3,573.29	-0.58
10/16/2023 3:04:00 PM	94.30	308.63	4.92	636.19	5.40	8.07	5,711.50	3,573.00	-0.58
10/17/2023 3:04:00 AM	93.43	308.59	4.92	636.19	5.40	8.07	5,711.84	3,573.25	-0.58
10/17/2023 3:04:00 PM	94.24	308.73	4.91	636.20	5.40	8.07	5,711.64	3,573.24	-0.58
10/18/2023 3:04:00 AM	94.12	308.68	4.91	636.20	5.40	8.07	5,711.73	3,573.28	-0.58
10/18/2023 3:04:00 PM	93.61	308.64	4.92	636.19	5.40	8.07	5,711.89	3,573.33	-0.58
10/19/2023 3:04:00 AM	93.92	308.63	4.92	636.19	5.40	8.08	5,712.44	3,573.63	-0.58
10/19/2023 3:04:00 PM	93.59	308.71	4.91	636.20	5.40	8.08	5,712.33	3,573.67	-0.58
10/20/2023 3:04:00 AM	94.00	308.67	4.91	636.20	5.40	8.08	5,712.17	3,573.62	-0.58
10/20/2023 3:04:00 PM	94.63	308.68	4.91	636.20	5.40	8.08	5,712.00	3,573.36	-0.58
10/21/2023 3:04:00 AM	94.89	308.55	4.92	636.19	5.40	8.08	5,712.35	3,573.65	-0.57
10/21/2023 3:04:00 PM	94.30	308.62	4.92	636.19	5.40	8.08	5,713.09	3,574.14	-0.57
10/22/2023 3:04:00 AM	94.80	308.56	4.92	636.19	5.40	8.08	5,712.53	3,573.81	-0.58
10/22/2023 3:04:00 PM	94.46	308.57	4.92	636.19	5.40	8.08	5,712.51	3,573.76	-0.58
10/23/2023 3:04:00 AM	95.02	308.58	4.92	636.19	5.40	8.08	5,713.00	3,573.99	-0.58
10/23/2023 3:04:00 PM	95.06	308.56	4.92	636.19	5.40	8.08	5,712.73	3,573.79	-0.58
10/24/2023 3:04:00 AM	95.40	308.66	4.91	636.20	5.40	8.08	5,713.32	3,574.15	-0.58
10/24/2023 3:04:00 PM	95.39	308.56	4.92	636.19	5.40	8.08	5,712.73	3,573.92	-0.58
10/25/2023 3:04:00 AM	95.45	308.60	4.92	636.19	5.40	8.08	5,712.75	3,573.92	-0.58
10/25/2023 3:04:00 PM	95.37	308.57	4.92	636.19	5.40	8.08	5,712.88	3,574.04	-0.58
10/26/2023 3:04:00 AM	95.45	308.56	4.92	636.19	5.40	8.08	5,713.39	3,574.25	-0.58
10/26/2023 3:04:00 PM	95.62	308.60	4.92	636.19	5.40	8.08	5,713.56	3,574.36	-0.58
10/27/2023 3:04:00 AM	95.59	308.57	4.92	636.19	5.40	8.08	5,713.09	3,574.22	-0.58
10/27/2023 3:04:00 PM	95.45	308.60	4.92	636.19	5.40	8.08	5,713.12	3,574.09	-0.58
10/28/2023 3:04:00 AM	95.29	308.54	4.93	636.18	5.40	8.08	5,713.29	3,574.25	-0.58
10/28/2023 3:04:00 PM	95.65	308.58	4.92	636.19	5.40	8.08	5,713.09	3,574.25	-0.58
10/29/2023 3:04:00 AM	95.93	308.58	4.92	636.19	5.40	8.08	5,713.52	3,574.48	-0.58
10/29/2023 3:04:00 PM	95.56	308.61	4.92	636.19	5.40	8.08	5,713.65	3,574.49	-0.58
10/30/2023 3:04:00 AM	95.34	308.48	-	-	5.40	8.09	5,713.40	3,574.32	-0.58

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	608	608	608	608	622	433	622	398	622
[Pre-Injection] Min	91.63	114.64	5.17	635.21	4.86	8.57	1,545.55	1,068.88	-1.09
[Pre-Injection] Max	96.99	134.64	5.93	635.97	5.09	9.41	2,252.48	1,387.73	-0.03
[Pre-Injection] Mean	94.08	128.59	5.37	635.77	4.97	8.98	1,843.68	1,155.29	-0.50
[Pre-Injection] Median	94.04	126.56	5.38	635.76	4.95	8.95	1,800.66	1,105.60	-0.52
[Pre-Injection] Standard Deviation	0.78	4.93	0.07	0.07	0.06	0.18	149.64	102.81	0.11
[2023] Count	603	603	603	603	603	603	603	603	603
[2023] Min	91.93	109.24	5.30	635.13	5.32	8.30	1,683.70	1,051.74	-0.58
[2023] Max	96.27	115.82	6.01	635.84	6.39	8.71	1,758.01	1,116.41	-0.03
[2023] Mean	94.32	114.80	5.42	635.72	5.35	8.55	1,727.05	1,078.83	-0.53
[2023] Median	94.31	114.79	5.41	635.73	5.35	8.60	1,719.56	1,074.44	-0.56
[2023] Standard Deviation	0.73	0.64	0.07	0.07	0.05	0.14	23.28	14.78	0.07
1/1/2023 11:01:00 AM	94.02	114.32	5.55	635.59	5.32	8.55	1,753.76	1,094.64	-0.56
1/1/2023 11:01:00 PM	93.93	114.27	5.55	635.59	5.32	8.55	1,754.05	1,094.79	-0.56
1/2/2023 11:01:00 AM	93.71	114.34	5.54	635.60	5.32	8.55	1,754.09	1,094.83	-0.56
1/2/2023 11:01:00 PM	93.47	114.28	5.55	635.59	5.32	8.55	1,753.97	1,094.74	-0.56
1/3/2023 11:01:00 AM	93.27	114.31	5.55	635.59	5.32	8.55	1,753.64	1,094.59	-0.56
1/3/2023 11:01:00 PM	93.64	114.33	5.55	635.59	5.32	8.55	1,753.75	1,094.67	-0.56
1/4/2023 11:01:00 AM	94.18	114.33	5.55	635.59	5.32	8.55	1,753.97	1,094.80	-0.56
1/4/2023 11:01:00 PM	94.41	114.29	5.55	635.59	5.32	8.55	1,754.54	1,095.14	-0.56
1/5/2023 11:01:00 AM	94.24	114.32	5.55	635.59	5.32	8.55	1,754.76	1,095.22	-0.56
1/5/2023 11:01:00 PM	93.70	114.30	5.55	635.59	5.32	8.55	1,754.86	1,095.25	-0.56
1/6/2023 11:01:00 AM	93.74	114.24	5.56	635.58	5.32	8.55	1,754.54	1,095.09	-0.56
1/6/2023 11:01:00 PM	94.03	114.20	5.56	635.58	5.32	8.55	1,754.61	1,095.20	-0.56
1/7/2023 11:01:00 AM	94.14	114.26	5.55	635.59	5.32	8.55	1,754.48	1,095.02	-0.56
1/7/2023 11:01:00 PM	93.98	114.20	5.56	635.58	5.32	8.55	1,754.16	1,094.91	-0.56
1/8/2023 11:01:00 AM	93.58	114.27	5.55	635.59	5.32	8.55	1,754.40	1,095.01	-0.56
1/8/2023 11:01:00 PM	93.40	114.27	5.55	635.59	5.33	8.55	1,754.34	1,095.07	-0.56
1/9/2023 11:01:00 AM	93.48	114.31	5.55	635.59	5.32	8.55	1,754.38	1,095.06	-0.56
1/9/2023 11:01:00 PM	93.47	114.21	5.56	635.58	5.32	8.55	1,754.66	1,095.23	-0.56
1/10/2023 11:01:00 AM	93.72	114.19	5.56	635.58	5.32	8.55	1,755.37	1,095.67	-0.56
1/10/2023 11:01:00 PM	94.15	114.23	5.56	635.58	5.32	8.55	1,755.26	1,095.61	-0.56
1/11/2023 11:01:00 AM	94.71	114.21	5.56	635.58	5.33	8.55	1,754.78	1,095.37	-0.56
1/11/2023 11:01:00 PM	94.83	114.18	5.56	635.58	5.33	8.55	1,754.61	1,095.33	-0.56
1/12/2023 11:01:00 AM	94.67	114.20	5.56	635.58	5.33	8.55	1,754.95	1,095.46	-0.56
1/12/2023 11:01:00 PM	94.13	114.25	5.55	635.59	5.33	8.55	1,755.36	1,095.71	-0.56
1/13/2023 11:01:00 AM	93.89	114.33	5.55	635.59	5.33	8.55	1,754.97	1,095.46	-0.56
1/13/2023 11:02:00 PM	93.24	114.33	5.55	635.59	5.32	8.55	1,755.29	1,095.58	-0.56
1/14/2023 11:02:00 AM	93.11	114.28	5.55	635.59	5.33	8.55	1,755.06	1,095.51	-0.56
1/14/2023 11:02:00 PM	93.11	114.29	5.55	635.59	5.33	8.55	1,755.18	1,095.59	-0.56
1/15/2023 11:02:00 AM	93.12	114.33	5.55	635.59	5.33	8.55	1,754.95	1,095.50	-0.56
1/15/2023 11:02:00 PM	93.27	114.28	5.55	635.59	5.33	8.55	1,755.10	1,095.58	-0.56
1/16/2023 11:02:00 AM	93.43	114.27	5.55	635.59	5.33	8.55	1,755.31	1,095.66	-0.56
1/16/2023 11:02:00 PM	93.55	114.26	5.55	635.59	5.32	8.55	1,755.23	1,095.56	-0.56
1/17/2023 11:02:00 AM	93.73	114.25	5.55	635.59	5.33	8.55	1,755.36	1,095.72	-0.56
1/17/2023 11:02:00 PM	93.74	114.25	5.55	635.59	5.32	8.55	1,755.35	1,095.66	-0.56
1/18/2023 11:02:00 AM	93.70	114.27	5.55	635.59	5.32	8.55	1,755.79	1,095.87	-0.56
1/18/2023 11:02:00 PM	93.64	114.28	5.55	635.59	5.32	8.55	1,755.86	1,095.97	-0.56
1/19/2023 11:02:00 AM	94.39	114.30	5.55	635.59	5.32	8.55	1,755.56	1,095.79	-0.56
1/19/2023 11:02:00 PM	94.51	114.28	5.55	635.59	5.33	8.55	1,755.74	1,095.97	-0.56
1/20/2023 11:02:00 AM	94.53	114.32	5.55	635.59	5.33	8.55	1,755.85	1,096.03	-0.56
1/20/2023 11:02:00 PM	94.42	114.27	5.55	635.59	5.32	8.55	1,756.21	1,096.22	-0.55
1/21/2023 11:02:00 AM	94.09	114.25	5.55	635.59	5.32	8.55	1,755.54	1,095.78	-0.55
1/21/2023 11:02:00 PM	93.49	114.26	5.55	635.59	5.32	8.55	1,756.47	1,096.33	-0.55
1/22/2023 11:02:00 AM	94.24	114.23	5.56	635.58	5.32	8.55	1,756.07	1,096.13	-0.56
1/22/2023 11:02:00 PM	94.69	114.22	5.56	635.58	5.32	8.55	1,756.12	1,096.09	-0.56
1/23/2023 11:02:00 AM	93.70	114.33	5.55	635.59	5.32	8.55	1,755.83	1,095.96	-0.56
1/23/2023 11:02:00 PM	94.04	114.28	5.55	635.59	5.32	8.55	1,756.43	1,096.36	-0.56
1/24/2023 11:02:00 AM	94.46	114.24	5.55	635.59	5.33	8.55	1,756.64	1,096.51	-0.56
1/24/2023 11:02:00 PM	94.87	114.22	5.56	635.58	5.33	8.55	1,756.41	1,096.40	-0.56
1/25/2023 11:02:00 AM	95.12	114.28	5.55	635.59	5.33	8.55	1,756.04	1,096.12	-0.56
1/25/2023 11:02:00 PM	94.11	114.17	5.56	635.58	5.32	8.55	1,756.25	1,096.24	-0.56
1/26/2023 11:02:00 AM	93.91	114.28	5.55	635.59	5.32	8.56	1,756.73	1,096.51	-0.56
1/26/2023 11:02:00 PM	94.02	114.29	5.55	635.59	5.32	8.55	1,756.55	1,096.41	-0.56
1/27/2023 11:02:00 AM	94.97	114.25	5.55	635.59	5.33	8.55	1,756.27	1,096.30	-0.56
1/27/2023 11:02:00 PM	95.78	114.26	5.55	635.59	5.33	8.56	1,756.52	1,096.43	-0.56
1/28/2023 11:02:00 AM	96.14	114.24	5.56	635.58	5.32	8.55	1,756.38	1,096.31	-0.56
1/28/2023 11:02:00 PM	96.00	114.26	5.55	635.59	5.33	8.55	1,757.16	1,096.87	-0.56
1/29/2023 11:02:00 AM	95.68	114.28	5.55	635.59	5.32	8.56	1,756.67	1,096.50	-0.56

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 11:02:00 PM	94.78	114.35	5.54	635.60	5.33	8.55	1,756.67	1,096.56	-0.56
1/30/2023 11:02:00 AM	94.86	114.36	5.54	635.60	5.33	8.55	1,756.91	1,096.68	-0.56
1/30/2023 11:02:00 PM	94.07	114.37	5.54	635.60	5.33	8.55	1,756.74	1,096.56	-0.56
1/31/2023 11:02:00 AM	94.26	114.33	5.55	635.59	5.33	8.55	1,756.49	1,096.63	-0.56
1/31/2023 11:02:00 PM	94.07	114.32	5.55	635.59	5.33	8.55	1,756.41	1,096.41	-0.56
2/1/2023 11:02:00 AM	94.95	114.33	5.55	635.59	5.33	8.55	1,756.85	1,096.65	-0.56
2/1/2023 11:02:00 PM	95.70	114.31	5.55	635.59	5.33	8.55	1,757.32	1,096.98	-0.56
2/2/2023 11:02:00 AM	95.03	114.38	5.54	635.60	5.32	8.55	1,757.29	1,096.83	-0.56
2/2/2023 11:02:00 PM	94.02	114.34	5.54	635.60	5.32	8.55	1,757.27	1,096.83	-0.56
2/3/2023 11:02:00 AM	93.38	114.41	5.54	635.60	5.32	8.55	1,757.58	1,097.05	-0.56
2/3/2023 11:02:00 PM	93.18	114.33	5.55	635.59	5.32	8.55	1,756.95	1,096.67	-0.55
2/4/2023 11:02:00 AM	93.52	114.26	5.55	635.59	5.33	8.55	1,757.12	1,096.81	-0.56
2/4/2023 11:02:00 PM	93.46	114.27	5.55	635.59	5.32	8.55	1,758.01	1,097.30	-0.56
2/5/2023 11:02:00 AM	92.73	114.32	5.55	635.59	5.33	8.56	1,757.52	1,097.05	-0.56
2/5/2023 11:02:00 PM	92.95	114.26	5.55	635.59	5.32	8.55	1,757.15	1,096.78	-0.56
2/6/2023 11:02:00 AM	93.51	114.27	5.55	635.59	5.33	8.56	1,757.38	1,097.01	-0.56
2/6/2023 11:02:00 PM	93.07	114.25	5.55	635.59	5.33	8.56	1,757.29	1,096.97	-0.56
2/7/2023 11:02:00 AM	93.77	114.26	5.55	635.59	5.33	8.56	1,757.08	1,096.83	-0.56
2/7/2023 11:02:00 PM	93.67	114.30	5.55	635.59	5.32	8.56	1,757.16	1,096.78	-0.56
2/8/2023 11:02:00 AM	94.80	114.28	5.55	635.59	5.32	8.56	1,757.50	1,097.02	-0.56
2/8/2023 11:02:00 PM	95.10	114.28	5.55	635.59	5.33	8.56	1,757.06	1,096.76	-0.56
2/9/2023 11:02:00 AM	94.76	114.35	5.54	635.60	5.32	8.56	1,757.19	1,096.82	-0.56
2/9/2023 11:02:00 PM	93.98	114.34	5.54	635.60	5.33	8.56	1,757.15	1,096.84	-0.56
2/10/2023 11:02:00 AM	93.32	114.37	5.54	635.60	5.32	8.55	1,757.46	1,096.98	-0.56
2/10/2023 11:02:00 PM	93.81	114.28	5.55	635.59	5.32	8.56	1,757.61	1,097.08	-0.56
2/11/2023 11:02:00 AM	93.87	114.29	5.55	635.59	5.32	8.56	1,757.37	1,096.94	-0.56
2/11/2023 11:02:00 PM	93.84	114.27	5.55	635.59	5.33	8.56	1,757.02	1,096.73	-0.56
2/12/2023 11:02:00 AM	93.51	114.31	5.55	635.59	5.32	8.56	1,757.24	1,096.85	-0.56
2/12/2023 11:02:00 PM	92.09	114.29	5.55	635.59	5.33	8.56	1,757.32	1,096.95	-0.56
2/13/2023 11:02:00 AM	92.01	114.34	5.54	635.60	5.33	8.55	1,757.14	1,096.85	-0.56
2/13/2023 11:02:00 PM	93.47	114.36	5.54	635.60	5.33	8.56	1,757.44	1,097.06	-0.56
2/14/2023 11:02:00 AM	94.55	114.38	5.54	635.60	5.33	8.56	1,757.24	1,096.90	-0.56
2/15/2023 1:47:00 AM	94.66	112.74	5.58	635.56	5.35	8.31	1,683.70	1,051.74	-0.27
2/15/2023 1:47:00 PM	94.66	113.83	5.47	635.67	5.35	8.31	1,685.52	1,052.86	-0.29
2/16/2023 1:47:00 AM	94.27	114.00	5.45	635.69	5.35	8.31	1,688.09	1,054.47	-0.30
2/16/2023 1:47:00 PM	93.47	114.02	5.45	635.69	5.34	8.31	1,690.14	1,055.52	-0.30
2/17/2023 1:47:00 AM	93.71	113.99	5.45	635.69	5.33	8.31	1,691.96	1,056.43	-0.31
2/17/2023 1:47:00 PM	93.84	113.96	5.45	635.69	5.33	8.30	1,693.36	1,057.13	-0.32
2/18/2023 1:47:00 AM	93.44	113.94	5.46	635.68	5.33	8.30	1,694.06	1,057.54	-0.33
2/18/2023 1:47:00 PM	94.00	113.99	5.45	635.69	5.33	8.31	1,694.40	1,057.76	-0.34
2/19/2023 1:47:00 AM	93.76	114.01	5.45	635.69	5.33	8.31	1,694.42	1,057.78	-0.37
2/19/2023 1:47:00 PM	93.01	114.09	5.44	635.70	5.33	8.30	1,694.84	1,058.02	-0.40
2/20/2023 1:47:00 AM	93.98	114.09	5.44	635.70	5.33	8.31	1,695.17	1,058.24	-0.41
2/20/2023 1:47:00 PM	94.13	114.06	5.44	635.70	5.33	8.31	1,694.94	1,058.08	-0.42
2/21/2023 1:47:00 AM	93.99	114.16	5.43	635.71	5.33	8.31	1,695.08	1,058.20	-0.43
2/21/2023 1:47:00 PM	94.81	114.16	5.43	635.71	5.33	8.31	1,695.31	1,058.32	-0.44
2/22/2023 1:47:00 AM	95.56	114.15	5.43	635.71	5.33	8.31	1,695.64	1,058.55	-0.44
2/22/2023 1:47:00 PM	95.81	114.11	5.44	635.70	5.33	8.31	1,695.53	1,058.46	-0.44
2/23/2023 1:47:00 AM	96.11	114.12	5.44	635.70	5.33	8.30	1,695.92	1,058.76	-0.45
2/23/2023 1:47:00 PM	96.26	114.09	5.44	635.70	5.33	8.31	1,695.74	1,058.63	-0.49
2/24/2023 1:47:00 AM	95.77	114.13	5.44	635.70	5.33	8.30	1,695.97	1,058.80	-0.50
2/24/2023 1:47:00 PM	94.33	114.08	5.44	635.70	5.33	8.30	1,696.14	1,058.87	-0.50
2/25/2023 1:47:00 AM	93.53	114.13	5.44	635.70	5.34	8.31	1,697.32	1,059.91	-0.50
2/25/2023 1:47:00 PM	93.29	114.10	5.44	635.70	5.34	8.32	1,696.35	1,059.26	-0.50
2/26/2023 1:47:00 AM	92.39	114.09	5.44	635.70	5.34	8.31	1,696.49	1,059.30	-0.50
2/26/2023 1:47:00 PM	91.98	114.07	5.44	635.70	5.33	8.31	1,696.58	1,059.31	-0.50
2/27/2023 1:47:00 AM	92.63	114.09	5.44	635.70	5.33	8.31	1,696.79	1,059.42	-0.50
2/27/2023 1:47:00 PM	93.07	114.08	5.44	635.70	5.33	8.31	1,696.86	1,059.49	-0.50
2/28/2023 1:47:00 AM	93.40	114.08	5.44	635.70	5.33	8.31	1,696.32	1,059.12	-0.51
2/28/2023 1:47:00 PM	93.89	114.16	5.43	635.71	5.34	8.31	1,696.44	1,059.31	-0.51
3/1/2023 1:47:00 AM	93.95	114.04	5.44	635.70	5.34	8.30	1,696.52	1,059.35	-0.51
3/1/2023 1:47:00 PM	93.32	114.05	5.44	635.70	5.34	8.32	1,696.46	1,059.29	-0.51
3/2/2023 1:47:00 AM	92.31	114.04	5.44	635.70	5.34	8.31	1,696.75	1,059.52	-0.51
3/2/2023 1:47:00 PM	91.93	114.09	5.44	635.70	5.34	8.32	1,697.02	1,059.60	-0.51
3/3/2023 1:47:00 AM	92.67	114.09	5.44	635.70	5.34	8.30	1,696.76	1,059.46	-0.51
3/3/2023 1:47:00 PM	92.87	114.03	5.45	635.69	5.33	8.31	1,696.87	1,059.51	-0.51
3/4/2023 1:47:00 AM	93.55	114.03	5.45	635.69	5.33	8.31	1,697.28	1,059.75	-0.51
3/4/2023 1:47:00 PM	94.23	114.05	5.44	635.70	5.34	8.31	1,696.66	1,059.44	-0.51
3/5/2023 1:47:00 AM	95.18	114.05	5.44	635.70	5.34	8.31	1,696.71	1,059.52	-0.51
3/5/2023 1:47:00 PM	95.62	114.12	5.44	635.70	5.34	8.31	1,696.83	1,059.60	-0.51

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/6/2023 1:47:00 AM	95.78	114.13	5.44	635.70	5.34	8.32	1,696.88	1,059.57	-0.51
3/6/2023 1:47:00 PM	95.79	114.11	5.44	635.70	5.34	8.31	1,697.33	1,059.88	-0.51
3/7/2023 1:47:00 AM	95.63	114.11	5.44	635.70	5.34	8.31	1,697.26	1,059.83	-0.51
3/7/2023 1:47:00 PM	95.66	114.14	5.44	635.70	5.34	8.32	1,697.08	1,059.73	-0.51
3/8/2023 1:47:00 AM	96.03	114.06	5.44	635.70	5.34	8.32	1,697.10	1,059.68	-0.51
3/8/2023 1:47:00 PM	96.27	114.14	5.43	635.71	5.34	8.32	1,697.23	1,059.84	-0.51
3/9/2023 1:47:00 AM	96.20	114.14	5.44	635.70	5.34	8.31	1,696.99	1,059.70	-0.51
3/9/2023 1:47:00 PM	95.45	114.20	5.43	635.71	5.34	8.31	1,697.09	1,059.82	-0.51
3/10/2023 1:47:00 AM	94.68	114.14	5.44	635.70	5.34	8.32	1,697.02	1,059.64	-0.51
3/10/2023 1:47:00 PM	94.25	114.20	5.43	635.71	5.34	8.32	1,697.57	1,060.00	-0.51
3/11/2023 1:47:00 AM	94.73	114.08	5.44	635.70	5.34	8.32	1,697.07	1,059.64	-0.51
3/11/2023 1:47:00 PM	95.13	114.03	5.45	635.69	5.34	8.32	1,697.06	1,059.67	-0.51
3/12/2023 1:47:00 AM	95.20	114.02	5.45	635.69	5.33	8.32	1,697.58	1,059.91	-0.52
3/12/2023 2:47:00 PM	94.98	114.06	5.44	635.70	5.33	8.32	1,697.90	1,060.08	-0.52
3/13/2023 2:47:00 AM	94.39	114.04	5.45	635.69	5.34	8.32	1,697.65	1,060.03	-0.52
3/13/2023 2:47:00 PM	93.40	114.05	5.44	635.70	5.34	8.33	1,697.50	1,059.99	-0.52
3/14/2023 2:47:00 AM	93.01	114.10	5.44	635.70	5.34	8.33	1,697.84	1,060.22	-0.52
3/14/2023 2:47:00 PM	93.42	114.06	5.44	635.70	5.34	8.33	1,697.73	1,060.21	-0.52
3/15/2023 2:47:00 AM	93.71	114.09	5.44	635.70	5.34	8.32	1,697.98	1,060.35	-0.52
3/15/2023 2:47:00 PM	94.28	114.14	5.44	635.70	5.34	8.33	1,697.58	1,060.03	-0.52
3/16/2023 2:47:00 AM	94.91	114.05	5.44	635.70	5.34	8.33	1,697.39	1,059.98	-0.52
3/16/2023 2:47:00 PM	95.33	114.10	5.44	635.70	5.34	8.33	1,697.28	1,059.96	-0.52
3/17/2023 2:47:00 AM	95.38	114.07	5.44	635.70	5.34	8.33	1,697.34	1,059.94	-0.52
3/17/2023 2:47:00 PM	95.18	114.11	5.44	635.70	5.34	8.33	1,697.45	1,060.06	-0.52
3/18/2023 2:47:00 AM	94.84	114.07	5.44	635.70	5.34	8.33	1,697.80	1,060.25	-0.52
3/18/2023 2:47:00 PM	94.64	114.15	5.43	635.71	5.34	8.33	1,697.95	1,060.30	-0.52
3/19/2023 2:47:00 AM	94.51	114.09	5.44	635.70	5.34	8.33	1,697.77	1,060.18	-0.52
3/19/2023 2:47:00 PM	94.35	114.13	5.44	635.70	5.34	8.33	1,697.74	1,060.13	-0.52
3/20/2023 2:48:00 AM	94.14	114.10	5.44	635.70	5.34	8.32	1,698.44	1,060.61	-0.52
3/20/2023 2:48:00 PM	93.98	114.15	5.43	635.71	5.34	8.33	1,698.35	1,060.51	-0.52
3/21/2023 2:48:00 AM	94.16	114.09	5.44	635.70	5.34	8.33	1,698.19	1,060.43	-0.52
3/21/2023 2:48:00 PM	94.29	114.19	5.43	635.71	5.34	8.33	1,697.98	1,060.37	-0.52
3/22/2023 2:48:00 AM	94.01	114.12	5.44	635.70	5.34	8.33	1,697.87	1,060.30	-0.52
3/22/2023 2:48:00 PM	93.59	114.23	5.43	635.71	5.34	8.33	1,697.90	1,060.25	-0.52
3/23/2023 2:48:00 AM	93.33	114.21	5.43	635.71	5.34	8.33	1,697.86	1,060.29	-0.52
3/23/2023 2:48:00 PM	93.47	114.22	5.43	635.71	5.34	8.33	1,697.90	1,060.34	-0.52
3/24/2023 2:48:00 AM	93.91	114.11	5.44	635.70	5.34	8.33	1,697.88	1,060.29	-0.52
3/24/2023 2:48:00 PM	94.40	114.09	5.44	635.70	5.34	8.33	1,698.02	1,060.33	-0.52
3/25/2023 2:48:00 AM	94.38	114.15	5.43	635.71	5.34	8.33	1,698.11	1,060.37	-0.52
3/25/2023 2:48:00 PM	94.37	114.18	5.43	635.71	5.34	8.33	1,698.39	1,060.63	-0.52
3/26/2023 2:48:00 AM	94.74	114.12	5.44	635.70	5.34	8.34	1,697.93	1,060.21	-0.52
3/26/2023 2:48:00 PM	95.24	114.08	5.44	635.70	5.34	8.34	1,698.00	1,060.34	-0.52
3/27/2023 2:48:00 AM	95.77	114.12	5.44	635.70	5.34	8.33	1,697.95	1,060.26	-0.52
3/27/2023 2:48:00 PM	95.67	114.16	5.43	635.71	5.34	8.34	1,698.20	1,060.50	-0.52
3/28/2023 2:48:00 AM	95.27	114.12	5.44	635.70	5.34	8.34	1,698.22	1,060.37	-0.52
3/28/2023 2:48:00 PM	95.02	114.19	5.43	635.71	5.34	8.34	1,698.35	1,060.57	-0.52
3/29/2023 2:48:00 AM	94.42	114.18	5.43	635.71	5.34	8.33	1,698.34	1,060.58	-0.52
3/29/2023 2:48:00 PM	94.10	114.17	5.43	635.71	5.34	8.34	1,698.20	1,060.46	-0.52
3/30/2023 2:48:00 AM	94.29	114.13	5.44	635.70	5.34	8.34	1,698.38	1,060.53	-0.52
3/30/2023 2:48:00 PM	93.93	114.11	5.44	635.70	5.33	8.34	1,697.96	1,060.17	-0.52
3/31/2023 2:48:00 AM	93.48	114.16	5.43	635.71	5.33	8.34	1,698.64	1,060.52	-0.52
3/31/2023 2:48:00 PM	93.36	114.22	5.43	635.71	5.33	8.34	1,698.46	1,060.40	-0.52
4/1/2023 2:48:00 AM	93.09	114.16	5.43	635.71	5.33	8.34	1,698.42	1,060.34	-0.52
4/1/2023 2:48:00 PM	92.95	114.19	5.43	635.71	5.33	8.34	1,698.59	1,060.46	-0.52
4/2/2023 2:48:00 AM	93.15	114.20	5.43	635.71	5.33	8.34	1,698.38	1,060.35	-0.52
4/2/2023 2:48:00 PM	93.61	114.19	5.43	635.71	5.33	8.34	1,698.21	1,060.25	-0.52
4/3/2023 2:48:00 AM	94.02	114.20	5.43	635.71	5.33	8.34	1,698.58	1,060.50	-0.52
4/3/2023 2:48:00 PM	94.29	114.25	5.42	635.72	5.33	8.34	1,698.51	1,060.41	-0.52
4/4/2023 2:48:00 AM	94.49	114.24	5.42	635.72	5.33	8.34	1,698.69	1,060.51	-0.52
4/4/2023 2:48:00 PM	94.75	114.21	5.43	635.71	5.33	8.34	1,698.68	1,060.54	-0.52
4/5/2023 2:48:00 AM	94.52	114.23	5.43	635.71	5.33	8.34	1,698.56	1,060.46	-0.52
4/5/2023 2:48:00 PM	94.31	114.25	5.42	635.72	5.33	8.34	1,698.34	1,060.33	-0.52
4/6/2023 2:48:00 AM	94.29	114.21	5.43	635.71	5.33	8.34	1,698.78	1,060.58	-0.52
4/6/2023 2:48:00 PM	94.33	114.24	5.42	635.72	5.33	8.34	1,699.06	1,060.75	-0.52
4/7/2023 2:48:00 AM	93.93	114.21	5.43	635.71	5.33	8.34	1,698.44	1,060.40	-0.52
4/7/2023 2:48:00 PM	93.45	114.28	5.42	635.72	5.33	8.34	1,699.14	1,060.79	-0.52
4/8/2023 2:48:00 AM	93.07	114.30	5.42	635.72	5.33	8.34	1,699.03	1,060.72	-0.52
4/8/2023 2:48:00 PM	93.31	114.27	5.42	635.72	5.33	8.34	1,699.06	1,060.76	-0.52
4/9/2023 2:48:00 AM	93.74	114.24	5.42	635.72	5.33	8.34	1,699.40	1,061.01	-0.52
4/9/2023 2:48:00 PM	93.70	114.23	5.43	635.71	5.33	8.34	1,699.50	1,061.05	-0.52

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/10/2023 2:48:00 AM	93.41	114.24	5.43	635.71	5.33	8.35	1,699.19	1,060.89	-0.52
4/10/2023 2:48:00 PM	93.98	114.21	5.43	635.71	5.33	8.35	1,698.95	1,060.76	-0.52
4/11/2023 2:48:00 AM	93.68	114.18	5.43	635.71	5.33	8.34	1,699.12	1,060.89	-0.52
4/11/2023 2:48:00 PM	93.48	114.23	5.43	635.71	5.33	8.34	1,699.36	1,061.04	-0.52
4/12/2023 2:48:00 AM	93.74	114.22	5.43	635.71	5.33	8.35	1,699.36	1,061.02	-0.52
4/12/2023 2:48:00 PM	93.78	114.16	5.43	635.71	5.33	8.35	1,699.31	1,061.00	-0.52
4/13/2023 2:48:00 AM	93.90	114.22	5.43	635.71	5.33	8.35	1,699.42	1,061.07	-0.52
4/13/2023 2:48:00 PM	93.82	114.20	5.43	635.71	5.34	8.35	1,699.06	1,060.89	-0.52
4/14/2023 2:48:00 AM	94.02	114.19	5.43	635.71	5.34	8.35	1,699.38	1,061.07	-0.52
4/14/2023 2:48:00 PM	94.22	114.19	5.43	635.71	5.33	8.35	1,699.37	1,061.03	-0.52
4/15/2023 2:48:00 AM	94.55	114.18	5.43	635.71	5.33	8.35	1,699.70	1,061.21	-0.52
4/15/2023 2:48:00 PM	94.58	114.19	5.43	635.71	5.34	8.35	1,699.85	1,061.41	-0.52
4/16/2023 2:48:00 AM	94.35	114.17	5.43	635.71	5.34	8.35	1,699.62	1,061.25	-0.52
4/16/2023 2:48:00 PM	93.82	114.23	5.43	635.71	5.33	8.35	1,699.56	1,061.17	-0.52
4/17/2023 2:48:00 AM	92.97	114.26	5.42	635.72	5.33	8.35	1,700.07	1,061.42	-0.52
4/17/2023 2:48:00 PM	92.80	114.31	5.42	635.72	5.33	8.35	1,699.90	1,061.37	-0.52
4/18/2023 2:48:00 AM	93.28	114.30	5.42	635.72	5.34	8.35	1,700.20	1,061.60	-0.52
4/18/2023 2:48:00 PM	93.62	114.29	5.42	635.72	5.34	8.35	1,700.26	1,061.63	-0.52
4/19/2023 2:48:00 AM	94.15	114.30	5.42	635.72	5.33	8.35	1,699.69	1,061.26	-0.52
4/19/2023 2:48:00 PM	94.87	114.27	5.42	635.72	5.34	8.35	1,700.16	1,061.59	-0.52
4/20/2023 2:48:00 AM	95.48	114.24	5.43	635.71	5.34	8.35	1,699.92	1,061.46	-0.52
4/20/2023 2:48:00 PM	95.67	114.22	5.43	635.71	5.33	8.35	1,699.90	1,061.36	-0.52
4/21/2023 2:48:00 AM	95.69	114.25	5.42	635.72	5.34	8.35	1,699.64	1,061.25	-0.52
4/21/2023 2:48:00 PM	95.89	114.21	5.43	635.71	5.33	8.35	1,699.71	1,061.27	-0.52
4/22/2023 2:48:00 AM	95.47	114.20	5.43	635.71	5.34	8.35	1,700.09	1,061.52	-0.52
4/22/2023 2:48:00 PM	94.86	114.24	5.42	635.72	5.34	8.35	1,699.65	1,061.28	-0.52
4/23/2023 2:48:00 AM	94.31	114.25	5.42	635.72	5.34	8.35	1,699.94	1,061.46	-0.52
4/23/2023 2:48:00 PM	93.82	114.26	5.42	635.72	5.33	8.35	1,700.96	1,062.04	-0.52
4/24/2023 2:48:00 AM	93.72	114.28	5.42	635.72	5.34	8.35	1,700.21	1,061.68	-0.52
4/24/2023 2:48:00 PM	94.13	114.28	5.42	635.72	5.34	8.35	1,699.86	1,061.43	-0.52
4/25/2023 2:48:00 AM	94.24	114.28	5.42	635.72	5.34	8.35	1,699.72	1,061.35	-0.52
4/25/2023 2:48:00 PM	94.10	114.30	5.42	635.72	5.34	8.35	1,699.97	1,061.46	-0.52
4/26/2023 2:48:00 AM	94.47	114.31	5.42	635.72	5.34	8.35	1,700.17	1,061.58	-0.52
4/26/2023 2:48:00 PM	93.75	114.35	5.41	635.73	5.34	8.35	1,700.25	1,061.67	-0.52
4/27/2023 2:48:00 AM	94.08	114.37	5.41	635.73	5.34	8.36	1,700.22	1,061.67	-0.52
4/27/2023 2:48:00 PM	94.73	114.34	5.41	635.73	5.34	8.36	1,699.61	1,061.29	-0.52
4/28/2023 2:48:00 AM	94.49	114.32	5.42	635.72	5.34	8.36	1,699.61	1,061.31	-0.52
4/28/2023 2:48:00 PM	94.75	114.38	5.41	635.73	5.34	8.35	1,700.24	1,061.66	-0.52
4/29/2023 2:48:00 AM	95.13	114.31	5.42	635.72	5.34	8.36	1,700.37	1,061.74	-0.52
4/29/2023 2:48:00 PM	94.96	114.34	5.42	635.72	5.34	8.35	1,700.09	1,061.57	-0.52
4/30/2023 2:48:00 AM	94.70	114.35	5.41	635.73	5.34	8.36	1,700.18	1,061.58	-0.52
4/30/2023 2:48:00 PM	94.28	114.35	5.41	635.73	5.34	8.35	1,700.21	1,061.66	-0.52
5/1/2023 2:48:00 AM	94.04	114.34	5.41	635.73	5.34	8.36	1,700.43	1,061.75	-0.52
5/1/2023 2:48:00 PM	93.73	114.34	5.41	635.73	5.34	8.36	1,700.03	1,061.60	-0.52
5/2/2023 2:48:00 AM	93.90	114.37	5.41	635.73	5.34	8.36	1,700.29	1,061.76	-0.52
5/2/2023 2:48:00 PM	94.27	114.36	5.41	635.73	5.34	8.36	1,699.84	1,061.52	-0.52
5/3/2023 2:48:00 AM	94.13	114.33	5.42	635.72	5.34	8.36	1,700.06	1,061.59	-0.52
5/3/2023 2:48:00 PM	93.66	114.35	5.41	635.73	5.34	8.36	1,700.46	1,061.83	-0.52
5/4/2023 2:48:00 AM	93.74	114.37	5.41	635.73	5.34	8.36	1,700.20	1,061.71	-0.52
5/4/2023 2:48:00 PM	93.86	114.37	5.41	635.73	5.34	8.36	1,699.85	1,061.52	-0.52
5/5/2023 2:48:00 AM	94.20	114.34	5.41	635.73	5.34	8.36	1,700.31	1,061.78	-0.52
5/5/2023 2:48:00 PM	94.39	114.34	5.41	635.73	5.34	8.36	1,700.35	1,061.81	-0.52
5/6/2023 2:48:00 AM	94.68	114.30	5.42	635.72	5.34	8.36	1,700.53	1,061.86	-0.52
5/6/2023 2:48:00 PM	94.58	114.34	5.41	635.73	5.34	8.36	1,700.67	1,062.01	-0.52
5/7/2023 2:48:00 AM	94.49	114.32	5.42	635.72	5.34	8.36	1,700.69	1,062.01	-0.52
5/7/2023 2:48:00 PM	94.31	114.36	5.41	635.73	5.34	8.36	1,700.98	1,062.18	-0.52
5/8/2023 2:48:00 AM	94.27	114.34	5.41	635.73	5.34	8.36	1,701.31	1,062.38	-0.52
5/8/2023 11:11:00 PM	94.22	113.27	5.56	635.58	5.38	8.66	1,701.88	1,064.03	-0.23
5/9/2023 11:11:00 AM	94.37	114.49	5.43	635.71	5.36	8.67	1,707.19	1,066.78	-0.28
5/9/2023 11:11:00 PM	94.46	114.68	5.41	635.73	5.36	8.67	1,709.18	1,067.86	-0.30
5/10/2023 11:11:00 AM	94.57	114.69	5.41	635.73	5.35	8.67	1,710.53	1,068.57	-0.30
5/10/2023 11:11:00 PM	94.66	114.70	5.41	635.73	5.35	8.67	1,711.03	1,068.78	-0.31
5/11/2023 11:11:00 AM	94.86	114.72	5.41	635.73	5.35	8.68	1,711.50	1,069.00	-0.33
5/11/2023 11:11:00 PM	95.06	114.65	5.42	635.72	5.35	8.68	1,712.11	1,069.36	-0.33
5/12/2023 11:11:00 AM	95.56	114.66	5.42	635.72	5.35	8.68	1,712.32	1,069.49	-0.34
5/12/2023 11:11:00 PM	95.64	114.68	5.41	635.73	5.34	8.69	1,712.77	1,069.76	-0.34
5/13/2023 11:11:00 AM	95.98	114.65	5.42	635.72	5.34	8.69	1,713.43	1,070.17	-0.34
5/13/2023 11:11:00 PM	95.86	114.65	5.42	635.72	5.35	8.69	1,713.62	1,070.31	-0.35
5/14/2023 11:11:00 AM	95.98	114.62	5.42	635.72	5.35	8.69	1,714.52	1,070.87	-0.35
5/14/2023 11:11:00 PM	95.53	114.64	5.42	635.72	5.35	8.69	1,714.61	1,070.92	-0.35

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 11:11:00 AM	95.02	114.63	5.42	635.72	5.35	8.69	1,715.26	1,071.34	-0.36
5/15/2023 11:11:00 PM	94.22	114.68	5.41	635.73	5.35	8.69	1,715.75	1,071.65	-0.36
5/16/2023 11:11:00 AM	94.89	114.65	5.42	635.72	5.34	8.69	1,716.70	1,072.20	-0.36
5/16/2023 11:11:00 PM	95.01	114.62	5.42	635.72	5.35	8.69	1,717.02	1,072.46	-0.37
5/17/2023 11:11:00 AM	94.89	114.60	5.42	635.72	5.35	8.69	1,717.32	1,072.65	-0.37
5/17/2023 11:11:00 PM	95.08	114.58	5.42	635.72	5.35	8.70	1,717.14	1,072.54	-0.38
5/18/2023 11:11:00 AM	95.22	114.60	5.42	635.72	5.35	8.69	1,716.59	1,072.22	-0.39
5/18/2023 11:11:00 PM	94.79	114.58	5.42	635.72	5.35	8.70	1,716.11	1,071.93	-0.40
5/19/2023 11:11:00 AM	94.37	114.62	5.42	635.72	5.35	8.69	1,716.10	1,071.91	-0.42
5/19/2023 11:11:00 PM	94.55	114.62	5.42	635.72	5.35	8.70	1,716.13	1,071.96	-0.44
5/20/2023 11:11:00 AM	94.91	114.64	5.42	635.72	5.35	8.70	1,716.05	1,071.90	-0.46
5/20/2023 11:11:00 PM	94.67	114.57	5.43	635.71	5.35	8.70	1,716.26	1,072.03	-0.47
5/21/2023 11:11:00 AM	94.42	114.62	5.42	635.72	5.35	8.70	1,716.43	1,072.20	-0.48
5/21/2023 11:11:00 PM	93.91	114.60	5.42	635.72	5.35	8.70	1,717.28	1,072.67	-0.48
5/22/2023 11:11:00 AM	93.64	114.71	5.41	635.73	5.35	8.70	1,716.81	1,072.39	-0.49
5/22/2023 11:11:00 PM	93.66	114.84	5.40	635.74	5.35	8.70	1,716.25	1,072.02	-0.49
5/23/2023 11:11:00 AM	93.97	114.91	5.39	635.75	5.35	8.70	1,715.48	1,071.59	-0.49
5/23/2023 11:11:00 PM	94.42	114.92	5.39	635.75	5.35	8.70	1,715.42	1,071.53	-0.49
5/24/2023 11:11:00 AM	94.41	114.91	5.39	635.75	5.35	8.70	1,715.37	1,071.47	-0.50
5/24/2023 11:11:00 PM	94.51	114.86	5.40	635.74	5.35	8.70	1,716.43	1,072.10	-0.54
5/25/2023 11:11:00 AM	94.78	114.86	5.40	635.74	5.35	8.70	1,716.09	1,071.89	-0.54
5/25/2023 11:11:00 PM	94.76	114.83	5.40	635.74	5.35	8.70	1,715.52	1,071.54	-0.54
5/26/2023 11:11:00 AM	94.64	114.86	5.40	635.74	5.35	8.70	1,715.31	1,071.41	-0.54
5/26/2023 11:11:00 PM	94.34	114.85	5.40	635.74	5.35	8.70	1,715.88	1,071.79	-0.55
5/27/2023 11:11:00 AM	94.19	114.83	5.40	635.74	5.35	8.70	1,716.56	1,072.22	-0.55
5/27/2023 11:11:00 PM	93.78	114.83	5.40	635.74	5.35	8.70	1,716.59	1,072.23	-0.55
5/28/2023 11:11:00 AM	93.67	114.87	5.39	635.75	5.35	8.70	1,716.80	1,072.42	-0.55
5/28/2023 11:11:00 PM	93.69	114.84	5.40	635.74	5.35	8.70	1,716.58	1,072.27	-0.55
5/29/2023 11:11:00 AM	93.66	114.87	5.39	635.75	5.35	8.70	1,717.09	1,072.60	-0.55
5/29/2023 11:11:00 PM	93.73	114.86	5.40	635.74	5.35	8.70	1,717.21	1,072.67	-0.55
5/30/2023 11:11:00 AM	93.75	114.93	5.39	635.75	5.35	8.71	1,717.33	1,072.76	-0.55
5/30/2023 11:11:00 PM	93.86	114.82	5.40	635.74	5.35	8.71	1,716.71	1,072.34	-0.55
5/31/2023 11:11:00 AM	94.03	114.83	5.40	635.74	5.35	8.71	1,716.68	1,072.30	-0.55
5/31/2023 11:11:00 PM	93.89	114.85	5.40	635.74	5.35	8.71	1,716.38	1,072.13	-0.55
6/1/2023 11:11:00 AM	94.51	114.88	5.39	635.75	5.35	8.71	1,716.79	1,072.36	-0.55
6/1/2023 11:11:00 PM	94.61	114.87	5.40	635.74	5.35	8.71	1,716.57	1,072.26	-0.55
6/2/2023 11:11:00 AM	94.82	114.85	5.40	635.74	5.35	8.71	1,716.81	1,072.39	-0.56
6/2/2023 11:11:00 PM	94.88	114.80	5.40	635.74	5.35	8.71	1,716.72	1,072.34	-0.56
6/3/2023 11:11:00 AM	94.97	114.82	5.40	635.74	5.35	8.71	1,716.70	1,072.36	-0.56
6/3/2023 11:11:00 PM	94.73	114.82	5.40	635.74	5.35	8.71	1,716.84	1,072.47	-0.56
6/4/2023 11:11:00 AM	94.46	114.79	5.40	635.74	5.35	8.71	1,717.08	1,072.60	-0.56
6/4/2023 11:11:00 PM	94.34	114.79	5.40	635.74	5.35	8.71	1,717.02	1,072.58	-0.56
6/5/2023 11:11:00 AM	94.37	114.79	5.40	635.74	5.35	8.71	1,717.15	1,072.67	-0.56
6/5/2023 11:11:00 PM	94.66	114.78	5.40	635.74	5.35	8.71	1,717.69	1,072.97	-0.56
6/6/2023 11:11:00 AM	94.73	114.78	5.40	635.74	5.35	8.71	1,717.20	1,072.73	-0.56
6/6/2023 11:11:00 PM	94.29	114.74	5.41	635.73	5.35	8.71	1,717.19	1,072.67	-0.56
6/7/2023 11:11:00 AM	94.24	114.74	5.41	635.73	5.35	8.71	1,717.38	1,072.79	-0.56
6/7/2023 11:11:00 PM	94.34	114.72	5.41	635.73	5.35	8.71	1,717.62	1,072.92	-0.56
6/8/2023 11:11:00 AM	94.79	114.73	5.41	635.73	5.35	8.71	1,717.00	1,072.61	-0.56
6/8/2023 11:11:00 PM	94.80	114.65	5.42	635.72	5.35	8.71	1,717.24	1,072.70	-0.56
6/9/2023 11:11:00 AM	94.79	114.73	5.41	635.73	5.35	8.71	1,717.55	1,072.89	-0.56
6/9/2023 11:11:00 PM	94.53	114.71	5.41	635.73	5.35	8.71	1,717.41	1,072.84	-0.56
6/10/2023 11:11:00 AM	94.38	114.67	5.41	635.73	5.35	8.71	1,717.34	1,072.80	-0.56
6/10/2023 11:11:00 PM	94.03	114.61	5.42	635.72	5.35	8.71	1,717.50	1,072.92	-0.56
6/11/2023 11:11:00 AM	94.27	114.64	5.42	635.72	5.35	8.71	1,717.39	1,072.82	-0.56
6/11/2023 11:11:00 PM	94.45	114.64	5.42	635.72	5.35	8.71	1,717.81	1,073.08	-0.56
6/12/2023 11:11:00 AM	94.53	114.62	5.42	635.72	5.35	8.71	1,717.55	1,072.95	-0.56
6/12/2023 11:11:00 PM	94.12	114.59	5.42	635.72	5.35	8.71	1,717.48	1,072.87	-0.56
6/13/2023 11:11:00 AM	93.58	114.61	5.42	635.72	5.35	8.71	1,717.83	1,073.13	-0.56
6/13/2023 11:11:00 PM	93.00	114.61	5.42	635.72	5.35	8.71	1,717.49	1,072.94	-0.56
6/14/2023 11:11:00 AM	92.99	114.64	5.42	635.72	5.35	8.71	1,717.88	1,073.17	-0.56
6/14/2023 11:11:00 PM	93.25	114.80	5.40	635.74	5.35	8.71	1,718.03	1,073.27	-0.56
6/15/2023 11:11:00 AM	93.89	114.94	5.39	635.75	5.35	8.71	1,717.97	1,073.28	-0.56
6/15/2023 11:11:00 PM	94.33	115.03	5.38	635.76	5.35	8.71	1,717.13	1,072.78	-0.56
6/16/2023 11:11:00 AM	93.86	115.00	5.38	635.76	5.35	8.71	1,716.92	1,072.60	-0.56
6/16/2023 11:11:00 PM	93.78	115.03	5.38	635.76	5.35	8.71	1,717.45	1,072.87	-0.56
6/17/2023 11:11:00 AM	93.80	115.03	5.38	635.76	5.35	8.71	1,717.31	1,072.86	-0.56
6/17/2023 11:11:00 PM	93.58	114.98	5.38	635.76	5.35	8.71	1,717.30	1,072.82	-0.56
6/18/2023 11:11:00 AM	93.11	115.07	5.37	635.77	5.35	8.71	1,717.33	1,072.81	-0.56
6/18/2023 11:11:00 PM	92.72	115.16	5.37	635.77	5.35	8.71	1,717.85	1,073.13	-0.56

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 11:12:00 AM	92.52	115.37	5.34	635.80	5.35	8.71	1,717.25	1,072.86	-0.56
6/19/2023 11:12:00 PM	93.39	115.49	5.33	635.81	5.36	8.71	1,717.03	1,072.75	-0.56
6/20/2023 11:12:00 AM	94.09	115.47	5.33	635.81	5.36	8.71	1,716.82	1,072.63	-0.56
6/20/2023 11:12:00 PM	94.55	115.49	5.33	635.81	5.35	8.71	1,716.48	1,072.37	-0.56
6/21/2023 11:12:00 AM	94.51	115.50	5.33	635.81	5.35	8.71	1,717.14	1,072.76	-0.56
6/21/2023 11:12:00 PM	94.54	115.48	5.33	635.81	5.35	8.71	1,717.31	1,072.81	-0.56
6/22/2023 11:12:00 AM	94.55	115.45	5.34	635.80	5.35	8.71	1,717.42	1,072.88	-0.56
6/22/2023 11:12:00 PM	94.33	115.49	5.33	635.81	5.35	8.71	1,717.27	1,072.78	-0.56
6/23/2023 11:12:00 AM	94.29	115.51	5.33	635.81	5.35	8.71	1,717.24	1,072.82	-0.56
6/23/2023 11:12:00 PM	94.32	115.45	5.34	635.80	5.35	8.71	1,717.65	1,073.01	-0.56
6/24/2023 11:12:00 AM	94.32	115.47	5.33	635.81	5.35	8.71	1,717.53	1,072.96	-0.56
6/24/2023 11:12:00 PM	94.19	115.44	5.34	635.80	5.35	8.70	1,717.60	1,073.05	-0.56
6/25/2023 11:12:00 AM	94.51	115.44	5.34	635.80	5.36	8.71	1,719.80	1,074.49	-0.55
6/25/2023 11:12:00 PM	94.51	115.41	5.34	635.80	5.35	8.71	1,718.18	1,073.39	-0.56
6/26/2023 11:12:00 AM	94.27	115.44	5.34	635.80	5.35	8.71	1,717.99	1,073.24	-0.56
6/26/2023 11:12:00 PM	93.98	115.39	5.34	635.80	5.35	8.70	1,717.88	1,073.15	-0.56
6/27/2023 11:12:00 AM	93.97	115.36	5.34	635.80	5.35	8.70	1,718.29	1,073.43	-0.56
6/27/2023 11:12:00 PM	94.07	115.38	5.34	635.80	5.35	8.70	1,718.07	1,073.30	-0.56
6/28/2023 11:12:00 AM	94.29	115.36	5.35	635.79	5.35	8.70	1,718.08	1,073.25	-0.56
6/28/2023 11:12:00 PM	94.18	115.29	5.35	635.79	5.35	8.70	1,718.00	1,073.21	-0.56
6/29/2023 11:12:00 AM	94.21	115.35	5.35	635.79	5.35	8.70	1,718.08	1,073.28	-0.56
6/29/2023 11:12:00 PM	94.26	115.31	5.35	635.79	5.35	8.71	1,718.10	1,073.24	-0.56
6/30/2023 11:12:00 AM	94.33	115.32	5.35	635.79	5.35	8.71	1,718.02	1,073.30	-0.56
6/30/2023 11:12:00 PM	94.29	115.31	5.35	635.79	5.35	8.70	1,717.97	1,073.22	-0.56
7/1/2023 11:12:00 AM	94.14	115.38	5.34	635.80	5.35	8.70	1,718.30	1,073.46	-0.56
7/1/2023 11:12:00 PM	94.08	115.36	5.35	635.79	5.35	8.70	1,718.41	1,073.57	-0.56
7/2/2023 11:12:00 AM	94.03	115.37	5.34	635.80	5.35	8.70	1,718.11	1,073.22	-0.56
7/2/2023 11:12:00 PM	94.27	115.42	5.34	635.80	5.35	8.70	1,718.30	1,073.48	-0.56
7/3/2023 11:12:00 AM	94.36	115.42	5.34	635.80	5.35	8.70	1,718.48	1,073.60	-0.56
7/3/2023 11:12:00 PM	95.07	115.39	5.34	635.80	5.35	8.70	1,717.78	1,073.15	-0.56
7/4/2023 11:12:00 AM	95.15	115.41	5.34	635.80	5.35	8.70	1,718.32	1,073.46	-0.56
7/4/2023 11:12:00 PM	94.93	115.39	5.34	635.80	5.35	8.70	1,718.55	1,073.62	-0.56
7/5/2023 11:12:00 AM	94.61	115.35	5.35	635.79	5.35	8.70	1,718.36	1,073.50	-0.56
7/5/2023 11:12:00 PM	94.41	115.38	5.34	635.80	5.35	8.70	1,718.56	1,073.62	-0.56
7/6/2023 11:12:00 AM	94.55	115.40	5.34	635.80	5.35	8.70	1,718.57	1,073.65	-0.56
7/6/2023 11:12:00 PM	94.63	115.35	5.35	635.79	5.35	8.70	1,718.51	1,073.61	-0.56
7/7/2023 11:12:00 AM	94.86	115.34	5.35	635.79	5.35	8.69	1,718.65	1,073.71	-0.56
7/7/2023 11:12:00 PM	94.64	115.29	5.35	635.79	5.35	8.69	1,719.18	1,073.98	-0.56
7/8/2023 11:12:00 AM	94.31	115.28	5.35	635.79	5.35	8.70	1,718.91	1,073.84	-0.56
7/8/2023 11:12:00 PM	93.98	115.27	5.35	635.79	5.35	8.70	1,719.07	1,073.89	-0.56
7/9/2023 11:12:00 AM	93.94	115.31	5.35	635.79	5.35	8.70	1,718.97	1,073.91	-0.56
7/9/2023 11:12:00 PM	93.98	115.30	5.35	635.79	5.35	8.70	1,719.23	1,074.08	-0.56
7/10/2023 11:12:00 AM	94.29	115.31	5.35	635.79	5.35	8.70	1,719.31	1,074.13	-0.56
7/10/2023 11:12:00 PM	94.44	115.31	5.35	635.79	5.35	8.69	1,719.51	1,074.22	-0.56
7/11/2023 11:12:00 AM	94.32	115.36	5.35	635.79	5.35	8.70	1,718.60	1,073.68	-0.56
7/11/2023 11:12:00 PM	94.27	115.30	5.35	635.79	5.35	8.69	1,719.18	1,074.02	-0.56
7/12/2023 11:12:00 AM	94.18	115.30	5.35	635.79	5.35	8.69	1,719.18	1,074.06	-0.56
7/12/2023 11:12:00 PM	94.14	115.32	5.35	635.79	5.35	8.69	1,719.11	1,073.98	-0.56
7/13/2023 11:12:00 AM	94.26	115.26	5.36	635.78	5.35	8.69	1,719.43	1,074.19	-0.56
7/13/2023 11:12:00 PM	94.40	115.27	5.35	635.79	5.35	8.70	1,720.08	1,074.56	-0.56
7/14/2023 11:12:00 AM	94.69	115.23	5.36	635.78	5.35	8.70	1,721.04	1,075.18	-0.56
7/14/2023 11:12:00 PM	94.72	115.23	5.36	635.78	5.35	8.69	1,719.63	1,074.26	-0.56
7/15/2023 11:12:00 AM	94.65	115.19	5.36	635.78	5.35	8.69	1,719.28	1,074.09	-0.56
7/15/2023 11:12:00 PM	94.62	115.19	5.36	635.78	5.35	8.69	1,719.30	1,074.13	-0.56
7/16/2023 11:12:00 AM	94.67	115.21	5.36	635.78	5.35	8.69	1,720.05	1,074.58	-0.56
7/16/2023 11:12:00 PM	94.35	115.19	5.36	635.78	5.35	8.69	1,720.15	1,074.60	-0.56
7/17/2023 11:12:00 AM	93.82	115.19	5.36	635.78	5.35	8.69	1,720.10	1,074.52	-0.56
7/17/2023 11:12:00 PM	93.64	115.21	5.36	635.78	5.35	8.69	1,720.11	1,074.59	-0.56
7/18/2023 11:12:00 AM	94.05	115.50	5.33	635.81	5.35	8.69	1,719.78	1,074.46	-0.56
7/18/2023 11:12:00 PM	94.83	115.56	5.32	635.82	5.36	8.69	1,720.14	1,074.78	-0.56
7/19/2023 11:12:00 AM	95.21	115.58	5.32	635.82	5.36	8.69	1,720.07	1,074.79	-0.56
7/19/2023 11:12:00 PM	95.13	115.57	5.32	635.82	5.36	8.68	1,719.60	1,074.44	-0.56
7/20/2023 11:12:00 AM	95.16	115.54	5.33	635.81	5.36	8.68	1,719.79	1,074.48	-0.56
7/20/2023 11:12:00 PM	94.96	115.52	5.33	635.81	5.36	8.69	1,719.87	1,074.60	-0.56
7/21/2023 11:12:00 AM	94.85	115.58	5.32	635.82	5.36	8.68	1,720.02	1,074.67	-0.56
7/21/2023 11:12:00 PM	94.54	115.53	5.33	635.81	5.36	8.68	1,719.51	1,074.35	-0.56
7/22/2023 11:12:00 AM	94.37	115.53	5.33	635.81	5.35	8.68	1,719.96	1,074.57	-0.56
7/22/2023 11:12:00 PM	94.26	115.50	5.33	635.81	5.35	8.68	1,720.04	1,074.59	-0.56
7/23/2023 11:12:00 AM	94.47	115.51	5.33	635.81	5.35	8.68	1,720.01	1,074.60	-0.56
7/23/2023 11:12:00 PM	94.33	115.56	5.32	635.82	5.36	8.68	1,719.94	1,074.70	-0.56

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 11:12:00 AM	94.20	115.68	5.31	635.83	5.36	8.68	1,719.73	1,074.55	-0.56
7/24/2023 11:12:00 PM	93.40	115.71	5.31	635.83	5.36	8.68	1,719.63	1,074.50	-0.56
7/25/2023 11:12:00 AM	93.76	115.69	5.31	635.83	5.36	8.68	1,719.71	1,074.55	-0.56
7/25/2023 11:12:00 PM	94.09	115.67	5.31	635.83	5.36	8.68	1,719.76	1,074.56	-0.56
7/26/2023 11:12:00 AM	93.78	115.69	5.31	635.83	5.36	8.68	1,719.87	1,074.65	-0.56
7/26/2023 11:12:00 PM	94.20	115.75	5.31	635.83	5.36	8.68	1,719.74	1,074.61	-0.56
7/27/2023 11:12:00 AM	94.95	115.66	5.31	635.83	5.36	8.68	1,719.56	1,074.50	-0.56
7/27/2023 11:12:00 PM	95.33	115.67	5.31	635.83	5.36	8.68	1,719.54	1,074.47	-0.56
7/28/2023 11:12:00 AM	95.51	115.71	5.31	635.83	5.36	8.68	1,719.42	1,074.40	-0.56
7/28/2023 11:12:00 PM	95.43	115.71	5.31	635.83	5.36	8.68	1,719.72	1,074.57	-0.56
7/29/2023 11:12:00 AM	95.30	115.68	5.31	635.83	5.36	8.68	1,719.92	1,074.65	-0.56
7/29/2023 11:12:00 PM	94.91	115.68	5.31	635.83	5.36	8.68	1,719.71	1,074.51	-0.56
7/30/2023 11:12:00 AM	94.59	115.66	5.31	635.83	5.36	8.68	1,719.85	1,074.64	-0.56
7/30/2023 11:12:00 PM	94.35	115.71	5.31	635.83	5.36	8.67	1,720.08	1,074.71	-0.56
7/31/2023 11:12:00 AM	94.42	115.80	5.30	635.84	5.36	8.68	1,720.10	1,074.87	-0.56
7/31/2023 11:12:00 PM	94.55	115.82	5.30	635.84	5.36	8.68	1,719.96	1,074.77	-0.56
8/1/2023 11:12:00 AM	94.71	115.81	5.30	635.84	5.36	8.68	1,719.95	1,074.64	-0.56
8/1/2023 11:12:00 PM	94.75	115.79	5.30	635.84	5.36	8.68	1,719.96	1,074.67	-0.56
8/2/2023 11:12:00 AM	94.95	115.78	5.30	635.84	5.36	8.68	1,720.04	1,074.76	-0.56
8/2/2023 11:12:00 PM	94.53	115.78	5.30	635.84	5.36	8.68	1,720.39	1,074.87	-0.56
8/3/2023 11:12:00 AM	94.74	115.82	5.30	635.84	5.35	8.68	1,720.41	1,074.86	-0.56
8/3/2023 11:12:00 PM	94.89	115.81	5.30	635.84	5.36	8.67	1,720.67	1,075.05	-0.56
8/4/2023 11:12:00 AM	95.15	115.78	5.30	635.84	5.36	8.68	1,720.39	1,074.94	-0.56
8/4/2023 11:12:00 PM	95.21	115.77	5.30	635.84	5.36	8.68	1,720.67	1,075.08	-0.56
8/5/2023 11:12:00 AM	95.50	115.81	5.30	635.84	5.36	8.68	1,720.41	1,074.94	-0.56
8/5/2023 11:12:00 PM	95.41	115.78	5.30	635.84	5.36	8.68	1,720.79	1,075.17	-0.56
8/6/2023 11:12:00 AM	95.24	115.79	5.30	635.84	5.36	8.68	1,720.56	1,075.06	-0.56
8/6/2023 11:12:00 PM	94.89	115.73	5.31	635.83	5.36	8.68	1,720.51	1,075.06	-0.56
8/7/2023 11:13:00 AM	94.72	115.76	5.30	635.84	5.36	8.68	1,720.85	1,075.24	-0.56
8/7/2023 11:13:00 PM	94.56	115.76	5.30	635.84	5.36	8.68	1,723.21	1,076.89	-0.56
8/8/2023 11:13:00 AM	94.35	109.24	6.01	635.13	6.39	8.55	1,732.72	1,116.41	-0.03
8/8/2023 11:13:00 PM	94.19	115.14	5.41	635.73	5.38	8.57	1,739.04	1,087.42	-0.27
8/9/2023 11:13:00 AM	93.80	115.62	5.36	635.78	5.37	8.57	1,742.45	1,089.11	-0.30
8/9/2023 11:13:00 PM	93.23	115.77	5.34	635.80	5.36	8.57	1,743.82	1,089.80	-0.31
8/10/2023 11:13:00 AM	93.19	115.77	5.34	635.80	5.36	8.58	1,744.88	1,090.47	-0.32
8/10/2023 11:13:00 PM	93.53	115.80	5.34	635.80	5.36	8.58	1,746.37	1,091.32	-0.33
8/11/2023 11:13:00 AM	94.06	115.79	5.34	635.80	5.36	8.58	1,747.40	1,091.93	-0.34
8/11/2023 11:13:00 PM	94.22	115.81	5.34	635.80	5.36	8.58	1,748.58	1,092.67	-0.34
8/12/2023 11:13:00 AM	94.53	115.82	5.34	635.80	5.36	8.59	1,748.89	1,092.85	-0.35
8/12/2023 11:13:00 PM	94.96	115.77	5.34	635.80	5.36	8.59	1,749.88	1,093.50	-0.36
8/13/2023 11:13:00 AM	94.95	115.75	5.34	635.80	5.36	8.59	1,750.61	1,093.93	-0.36
8/13/2023 11:13:00 PM	94.62	115.76	5.34	635.80	5.36	8.59	1,750.53	1,093.87	-0.37
8/14/2023 11:13:00 AM	94.71	115.74	5.35	635.79	5.36	8.59	1,750.45	1,093.82	-0.38
8/14/2023 11:13:00 PM	94.80	115.71	5.35	635.79	5.36	8.59	1,749.25	1,093.16	-0.39
8/15/2023 11:13:00 AM	94.29	115.70	5.35	635.79	5.36	8.59	1,748.71	1,092.78	-0.40
8/15/2023 11:13:00 PM	94.08	115.72	5.35	635.79	5.36	8.59	1,748.38	1,092.51	-0.42
8/16/2023 11:13:00 AM	94.55	115.69	5.35	635.79	5.36	8.59	1,748.31	1,092.51	-0.45
8/16/2023 11:13:00 PM	94.16	115.65	5.35	635.79	5.36	8.59	1,748.12	1,092.31	-0.47
8/17/2023 11:13:00 AM	93.47	115.66	5.35	635.79	5.36	8.59	1,748.27	1,092.48	-0.48
8/17/2023 11:13:00 PM	93.35	115.68	5.35	635.79	5.36	8.60	1,748.16	1,092.38	-0.49
8/18/2023 11:13:00 AM	93.38	115.71	5.35	635.79	5.36	8.60	1,748.45	1,092.59	-0.49
8/18/2023 11:13:00 PM	94.32	115.77	5.34	635.80	5.36	8.60	1,748.43	1,092.60	-0.50
8/19/2023 11:13:00 AM	95.02	115.78	5.34	635.80	5.36	8.59	1,748.37	1,092.51	-0.50
8/19/2023 11:13:00 PM	95.17	115.72	5.35	635.79	5.36	8.60	1,748.63	1,092.69	-0.50
8/20/2023 11:13:00 AM	95.16	115.78	5.34	635.80	5.36	8.60	1,748.28	1,092.45	-0.52
8/20/2023 11:13:00 PM	94.98	115.73	5.35	635.79	5.36	8.60	1,748.56	1,092.67	-0.55
8/21/2023 11:13:00 AM	94.98	115.71	5.35	635.79	5.36	8.60	1,748.76	1,092.84	-0.55
8/21/2023 11:13:00 PM	94.78	115.73	5.35	635.79	5.36	8.59	1,748.64	1,092.63	-0.56
8/22/2023 11:13:00 AM	94.67	115.68	5.35	635.79	5.36	8.60	1,748.75	1,092.78	-0.56
8/22/2023 11:13:00 PM	94.46	115.71	5.35	635.79	5.36	8.60	1,748.80	1,092.83	-0.56
8/23/2023 11:13:00 AM	94.24	115.69	5.35	635.79	5.36	8.60	1,749.06	1,092.91	-0.56
8/23/2023 11:13:00 PM	93.97	115.71	5.35	635.79	5.36	8.60	1,749.17	1,093.08	-0.56
8/24/2023 11:13:00 AM	94.59	115.75	5.34	635.80	5.36	8.60	1,748.94	1,092.93	-0.56
8/24/2023 11:13:00 PM	95.37	115.71	5.35	635.79	5.36	8.60	1,749.04	1,092.94	-0.56
8/25/2023 11:13:00 AM	95.42	115.68	5.35	635.79	5.36	8.60	1,749.14	1,093.05	-0.56
8/25/2023 11:13:00 PM	94.89	115.73	5.35	635.79	5.36	8.60	1,749.10	1,093.00	-0.56
8/26/2023 11:13:00 AM	94.59	115.68	5.35	635.79	5.36	8.60	1,749.17	1,093.06	-0.56
8/26/2023 11:13:00 PM	94.63	115.69	5.35	635.79	5.36	8.60	1,749.47	1,093.22	-0.56
8/27/2023 11:13:00 AM	94.94	115.66	5.35	635.79	5.36	8.60	1,749.33	1,093.14	-0.57
8/27/2023 11:13:00 PM	94.78	115.64	5.36	635.78	5.36	8.60	1,749.65	1,093.37	-0.57

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 11:13:00 AM	94.82	115.64	5.36	635.78	5.36	8.60	1,749.48	1,093.29	-0.57
8/28/2023 11:13:00 PM	94.73	115.63	5.36	635.78	5.36	8.60	1,749.45	1,093.31	-0.57
8/29/2023 11:13:00 AM	94.49	115.60	5.36	635.78	5.36	8.60	1,749.67	1,093.41	-0.57
8/29/2023 11:13:00 PM	93.93	115.59	5.36	635.78	5.36	8.60	1,749.65	1,093.40	-0.57
8/30/2023 11:13:00 AM	93.58	115.62	5.36	635.78	5.36	8.60	1,749.75	1,093.47	-0.57
8/30/2023 11:13:00 PM	93.42	115.61	5.36	635.78	5.36	8.60	1,749.88	1,093.56	-0.57
8/31/2023 11:13:00 AM	93.52	115.59	5.36	635.78	5.36	8.60	1,749.72	1,093.46	-0.57
8/31/2023 11:13:00 PM	93.79	115.54	5.37	635.77	5.36	8.60	1,749.99	1,093.59	-0.57
9/1/2023 11:13:00 AM	94.03	115.55	5.36	635.78	5.36	8.60	1,749.93	1,093.60	-0.57
9/1/2023 11:13:00 PM	93.24	115.57	5.36	635.78	5.36	8.60	1,749.84	1,093.55	-0.57
9/2/2023 11:13:00 AM	93.58	115.58	5.36	635.78	5.36	8.60	1,750.12	1,093.74	-0.57
9/2/2023 11:13:00 PM	93.87	115.51	5.37	635.77	5.37	8.60	1,750.40	1,093.96	-0.57
9/3/2023 11:13:00 AM	93.70	115.51	5.37	635.77	5.36	8.60	1,750.61	1,094.06	-0.57
9/3/2023 11:13:00 PM	93.80	115.52	5.37	635.77	5.36	8.60	1,750.58	1,094.01	-0.57
9/4/2023 11:13:00 AM	94.36	115.45	5.37	635.77	5.36	8.60	1,750.30	1,093.85	-0.57
9/4/2023 11:13:00 PM	94.67	115.48	5.37	635.77	5.37	8.60	1,750.17	1,093.80	-0.57
9/5/2023 11:13:00 AM	94.60	115.49	5.37	635.77	5.36	8.60	1,750.64	1,094.00	-0.57
9/5/2023 11:13:00 PM	94.17	115.50	5.37	635.77	5.36	8.60	1,750.74	1,094.02	-0.57
9/6/2023 11:13:00 AM	94.22	115.50	5.37	635.77	5.36	8.60	1,750.45	1,093.96	-0.57
9/6/2023 11:13:00 PM	94.17	115.46	5.37	635.77	5.36	8.60	1,750.52	1,093.95	-0.57
9/7/2023 11:13:00 AM	94.42	115.46	5.37	635.77	5.36	8.60	1,750.80	1,094.13	-0.57
9/7/2023 11:13:00 PM	94.68	115.44	5.38	635.76	5.36	8.61	1,750.68	1,094.06	-0.57
9/8/2023 11:13:00 AM	95.04	115.42	5.38	635.76	5.36	8.61	1,751.31	1,094.49	-0.57
9/8/2023 11:13:00 PM	95.32	115.46	5.37	635.77	5.36	8.61	1,751.03	1,094.31	-0.57
9/9/2023 11:13:00 AM	95.55	115.42	5.38	635.76	5.36	8.61	1,750.86	1,094.22	-0.57
9/9/2023 11:13:00 PM	95.43	115.38	5.38	635.76	5.37	8.61	1,751.03	1,094.38	-0.57
9/10/2023 11:13:00 AM	95.27	115.34	5.39	635.75	5.36	8.61	1,750.74	1,094.14	-0.57
9/10/2023 11:13:00 PM	94.88	115.33	5.39	635.75	5.36	8.61	1,751.15	1,094.40	-0.57
9/11/2023 11:13:00 AM	94.51	115.36	5.38	635.76	5.36	8.61	1,750.81	1,094.16	-0.57
9/11/2023 11:13:00 PM	94.15	115.37	5.38	635.76	5.36	8.61	1,751.50	1,094.62	-0.57
9/12/2023 11:13:00 AM	94.04	115.37	5.38	635.76	5.37	8.61	1,751.22	1,094.46	-0.57
9/12/2023 11:13:00 PM	93.95	115.32	5.39	635.75	5.37	8.61	1,751.04	1,094.35	-0.57
9/13/2023 11:13:00 AM	94.17	115.38	5.38	635.76	5.36	8.61	1,751.00	1,094.29	-0.57
9/13/2023 11:13:00 PM	94.48	115.33	5.39	635.75	5.36	8.61	1,751.18	1,094.39	-0.57
9/14/2023 11:13:00 AM	94.86	115.32	5.39	635.75	5.37	8.61	1,751.18	1,094.45	-0.57
9/14/2023 11:13:00 PM	94.91	115.29	5.39	635.75	5.37	8.61	1,750.98	1,094.33	-0.57
9/15/2023 11:13:00 AM	94.69	115.29	5.39	635.75	5.37	8.61	1,751.45	1,094.62	-0.57
9/15/2023 11:13:00 PM	94.07	115.30	5.39	635.75	5.37	8.61	1,751.45	1,094.62	-0.57
9/16/2023 11:13:00 AM	94.39	115.29	5.39	635.75	5.37	8.61	1,751.99	1,094.98	-0.57
9/16/2023 11:13:00 PM	93.95	115.29	5.39	635.75	5.37	8.61	1,751.75	1,094.81	-0.57
9/17/2023 11:13:00 AM	93.44	115.34	5.39	635.75	5.37	8.61	1,752.04	1,095.03	-0.57
9/17/2023 11:13:00 PM	93.40	115.30	5.39	635.75	5.37	8.61	1,752.02	1,095.09	-0.57
9/18/2023 11:13:00 AM	93.60	115.31	5.39	635.75	5.37	8.61	1,752.15	1,095.19	-0.57
9/18/2023 11:13:00 PM	93.90	115.25	5.39	635.75	5.37	8.61	1,752.57	1,095.34	-0.57
9/19/2023 11:13:00 AM	94.02	115.29	5.39	635.75	5.37	8.61	1,752.42	1,095.28	-0.57
9/19/2023 11:13:00 PM	94.01	115.28	5.39	635.75	5.37	8.61	1,752.31	1,095.16	-0.57
9/20/2023 11:13:00 AM	94.64	115.29	5.39	635.75	5.37	8.61	1,752.45	1,095.26	-0.57
9/20/2023 11:13:00 PM	95.10	115.26	5.39	635.75	5.37	8.61	1,751.63	1,094.82	-0.57
9/21/2023 11:13:00 AM	95.23	115.25	5.40	635.74	5.37	8.61	1,752.02	1,095.03	-0.57
9/21/2023 11:13:00 PM	94.95	115.25	5.39	635.75	5.37	8.61	1,751.80	1,094.91	-0.57
9/22/2023 11:13:00 AM	94.76	115.26	5.39	635.75	5.37	8.60	1,751.80	1,094.92	-0.57
9/22/2023 11:13:00 PM	94.31	115.25	5.39	635.75	5.37	8.61	1,752.36	1,095.22	-0.57
9/23/2023 11:13:00 AM	94.07	115.23	5.40	635.74	5.37	8.61	1,752.28	1,095.25	-0.57
9/23/2023 11:13:00 PM	93.67	115.27	5.39	635.75	5.37	8.61	1,752.29	1,095.21	-0.57
9/24/2023 11:13:00 AM	94.01	115.26	5.39	635.75	5.37	8.60	1,751.90	1,094.94	-0.57
9/24/2023 11:13:00 PM	94.35	115.25	5.39	635.75	5.37	8.61	1,752.73	1,095.45	-0.57
9/25/2023 11:13:00 AM	94.51	115.22	5.40	635.74	5.37	8.61	1,752.74	1,095.50	-0.57
9/25/2023 11:13:00 PM	93.70	115.24	5.40	635.74	5.37	8.61	1,752.91	1,095.60	-0.57
9/26/2023 11:14:00 AM	93.71	115.23	5.40	635.74	5.37	8.61	1,752.50	1,095.34	-0.57
9/26/2023 11:14:00 PM	93.81	115.25	5.40	635.74	5.37	8.61	1,752.20	1,095.22	-0.57
9/27/2023 11:14:00 AM	93.87	115.26	5.39	635.75	5.37	8.61	1,752.59	1,095.43	-0.57
9/27/2023 11:14:00 PM	93.89	115.24	5.40	635.74	5.37	8.61	1,752.13	1,095.15	-0.57
9/28/2023 11:14:00 AM	93.92	115.23	5.40	635.74	5.37	8.61	1,752.16	1,095.20	-0.57
9/28/2023 11:14:00 PM	93.96	115.21	5.40	635.74	5.37	8.61	1,752.21	1,095.16	-0.57
9/29/2023 11:14:00 AM	94.16	115.23	5.40	635.74	5.37	8.61	1,752.01	1,095.11	-0.57
9/29/2023 11:14:00 PM	94.73	115.22	5.40	635.74	5.37	8.61	1,752.59	1,095.39	-0.57
9/30/2023 11:14:00 AM	95.17	115.20	5.40	635.74	5.37	8.61	1,752.62	1,095.47	-0.57
9/30/2023 11:14:00 PM	95.27	115.20	5.40	635.74	5.37	8.61	1,752.43	1,095.36	-0.57
10/1/2023 11:14:00 AM	94.96	115.18	5.40	635.74	5.37	8.61	1,752.24	1,095.24	-0.57
10/1/2023 11:14:00 PM	94.21	115.19	5.40	635.74	5.37	8.61	1,752.52	1,095.35	-0.57

Table D.4 Summary of 2023 Continuous Water Quality Measurements at UL4/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/2/2023 11:14:00 AM	93.75	115.24	5.40	635.74	5.37	8.61	1,753.32	1,095.86	-0.57
10/2/2023 11:14:00 PM	93.89	115.23	5.40	635.74	5.37	8.61	1,753.13	1,095.79	-0.57
10/3/2023 11:14:00 AM	94.15	115.20	5.40	635.74	5.37	8.61	1,752.58	1,095.45	-0.57
10/3/2023 11:14:00 PM	93.75	115.25	5.40	635.74	5.37	8.61	1,752.29	1,095.28	-0.57
10/4/2023 11:14:00 AM	94.09	115.24	5.40	635.74	5.37	8.61	1,751.98	1,095.08	-0.57
10/4/2023 11:14:00 PM	94.95	115.17	5.40	635.74	5.37	8.61	1,752.45	1,095.38	-0.57
10/5/2023 11:14:00 AM	95.74	115.16	5.40	635.74	5.37	8.61	1,752.53	1,095.41	-0.57
10/5/2023 11:14:00 PM	95.97	115.13	5.41	635.73	5.37	8.61	1,752.48	1,095.38	-0.57
10/6/2023 11:14:00 AM	95.10	115.17	5.40	635.74	5.37	8.61	1,752.53	1,095.42	-0.57
10/6/2023 11:14:00 PM	94.47	115.20	5.40	635.74	5.37	8.61	1,752.15	1,095.19	-0.57
10/7/2023 11:14:00 AM	94.63	115.18	5.40	635.74	5.37	8.61	1,752.37	1,095.31	-0.57
10/7/2023 11:14:00 PM	94.28	115.17	5.40	635.74	5.37	8.61	1,752.57	1,095.39	-0.57
10/8/2023 11:14:00 AM	94.00	115.19	5.40	635.74	5.37	8.61	1,752.28	1,095.28	-0.57
10/8/2023 11:14:00 PM	93.67	115.24	5.40	635.74	5.37	8.61	1,752.18	1,095.23	-0.57
10/9/2023 11:14:00 AM	93.33	115.19	5.40	635.74	5.37	8.61	1,752.05	1,095.24	-0.57
10/9/2023 11:14:00 PM	93.00	115.22	5.40	635.74	5.37	8.61	1,752.08	1,095.15	-0.57
10/10/2023 11:14:00 AM	92.64	115.23	5.40	635.74	5.37	8.61	1,752.25	1,095.27	-0.57
10/10/2023 11:14:00 PM	92.67	115.21	5.40	635.74	5.37	8.61	1,752.32	1,095.30	-0.57
10/11/2023 11:14:00 AM	93.14	115.19	5.40	635.74	5.37	8.61	1,752.11	1,095.17	-0.57
10/11/2023 11:14:00 PM	94.01	115.17	5.40	635.74	5.37	8.61	1,752.41	1,095.34	-0.57
10/12/2023 11:14:00 AM	95.01	115.15	5.41	635.73	5.37	8.61	1,752.28	1,095.31	-0.57
10/12/2023 11:14:00 PM	95.35	115.10	5.41	635.73	5.37	8.61	1,752.27	1,095.34	-0.57
10/13/2023 11:14:00 AM	95.24	115.14	5.41	635.73	5.37	8.61	1,751.95	1,095.17	-0.57
10/13/2023 11:14:00 PM	94.81	115.15	5.41	635.73	5.37	8.61	1,752.15	1,095.25	-0.57
10/14/2023 11:14:00 AM	94.81	115.13	5.41	635.73	5.37	8.61	1,751.88	1,095.05	-0.57
10/14/2023 11:14:00 PM	94.83	115.11	5.41	635.73	5.37	8.61	1,751.93	1,095.09	-0.57
10/15/2023 11:14:00 AM	94.77	115.11	5.41	635.73	5.37	8.61	1,752.08	1,095.13	-0.58
10/15/2023 11:14:00 PM	94.86	115.10	5.41	635.73	5.37	8.61	1,751.92	1,095.08	-0.58
10/16/2023 11:14:00 AM	94.60	115.15	5.41	635.73	5.37	8.61	1,752.16	1,095.26	-0.58
10/16/2023 11:14:00 PM	93.49	115.17	5.40	635.74	5.37	8.61	1,752.03	1,095.13	-0.58
10/17/2023 11:14:00 AM	93.79	115.18	5.40	635.74	5.37	8.61	1,751.85	1,095.06	-0.58
10/17/2023 11:14:00 PM	94.07	115.11	5.41	635.73	5.37	8.61	1,751.94	1,095.12	-0.58
10/18/2023 11:14:00 AM	93.61	115.16	5.40	635.74	5.37	8.61	1,751.84	1,095.06	-0.58
10/18/2023 11:14:00 PM	93.69	115.17	5.40	635.74	5.37	8.62	1,751.91	1,095.11	-0.58
10/19/2023 11:14:00 AM	93.76	115.16	5.40	635.74	5.37	8.62	1,751.82	1,095.04	-0.58
10/19/2023 11:14:00 PM	93.73	115.20	5.40	635.74	5.37	8.61	1,752.13	1,095.23	-0.58
10/20/2023 11:14:00 AM	94.33	115.17	5.40	635.74	5.37	8.61	1,752.01	1,095.12	-0.58
10/20/2023 11:14:00 PM	94.79	115.14	5.41	635.73	5.37	8.62	1,751.57	1,094.83	-0.58
10/21/2023 11:14:00 AM	94.44	115.13	5.41	635.73	5.37	8.62	1,751.59	1,094.93	-0.58
10/21/2023 11:14:00 PM	94.49	115.13	5.41	635.73	5.37	8.62	1,751.65	1,094.92	-0.58
10/22/2023 11:14:00 AM	94.49	115.12	5.41	635.73	5.37	8.62	1,751.65	1,094.85	-0.58
10/22/2023 11:14:00 PM	94.83	115.16	5.40	635.74	5.37	8.62	1,751.48	1,094.79	-0.58
10/23/2023 11:14:00 AM	95.06	115.11	5.41	635.73	5.37	8.62	1,751.71	1,094.95	-0.58
10/23/2023 11:14:00 PM	95.20	115.10	5.41	635.73	5.37	8.62	1,751.94	1,095.09	-0.58
10/24/2023 11:14:00 AM	95.35	115.08	5.41	635.73	5.37	8.62	1,751.94	1,095.08	-0.58
10/24/2023 11:14:00 PM	95.32	115.06	5.41	635.73	5.37	8.62	1,751.61	1,094.93	-0.58
10/25/2023 11:14:00 AM	95.31	115.13	5.41	635.73	5.37	8.62	1,751.67	1,094.89	-0.58
10/25/2023 11:14:00 PM	95.29	115.09	5.41	635.73	5.37	8.62	1,751.84	1,095.00	-0.58
10/26/2023 11:14:00 AM	95.46	115.05	5.42	635.72	5.37	8.62	1,751.68	1,094.99	-0.58
10/26/2023 11:14:00 PM	95.54	115.11	5.41	635.73	5.37	8.62	1,751.37	1,094.81	-0.58
10/27/2023 11:14:00 AM	95.31	115.11	5.41	635.73	5.37	8.62	1,751.60	1,094.93	-0.58
10/27/2023 11:14:00 PM	95.26	115.09	5.41	635.73	5.37	8.62	1,751.60	1,094.87	-0.58
10/28/2023 11:14:00 AM	95.30	115.11	5.41	635.73	5.37	8.62	1,751.82	1,095.03	-0.58
10/28/2023 11:14:00 PM	95.80	115.06	5.41	635.73	5.37	8.62	1,751.85	1,095.03	-0.58
10/29/2023 11:14:00 AM	95.64	115.06	5.41	635.73	5.37	8.62	1,751.92	1,095.15	-0.58
10/29/2023 11:14:00 PM	95.04	115.06	5.41	635.73	5.37	8.62	1,751.73	1,095.02	-0.58

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	356	356	356	356	423	174	347	210	423
[Pre-Injection] Min	92.18	1,147.37	38.87	601.64	8.10	10.21	23,332.51	15,867.86	-0.88
[Pre-Injection] Max	97.74	1,160.08	39.48	602.25	8.42	11.52	31,828.21	21,578.70	1.17
[Pre-Injection] Mean	95.03	1,151.94	39.19	601.93	8.18	10.90	27,143.83	18,027.54	-0.43
[Pre-Injection] Median	95.02	1,151.46	39.14	601.98	8.16	10.74	27,636.83	17,864.71	-0.69
[Pre-Injection] Standard Deviation	0.88	2.85	0.15	0.15	0.05	0.35	1,649.58	1,117.50	0.51
[2023] Count	605	605	605	605	609	609	609	609	609
[2023] Min	94.26	1,251.08	39.48	600.83	5.72	10.10	0.08	0.06	-0.47
[2023] Max	94.49	1,257.75	40.29	601.64	8.97	11.90	28,704.59	19,588.10	-0.01
[2023] Mean	94.32	1,256.02	39.82	601.30	8.37	10.73	27,983.78	19,097.89	-0.32
[2023] Median	94.26	1,256.04	39.71	601.41	8.38	10.66	27,939.96	19,068.49	-0.30
[2023] Standard Deviation	0.08	0.76	0.23	0.23	0.14	0.33	2,010.60	1,372.18	0.08
1/1/2023 1:02:00 AM	94.49	1,255.77	40.13	600.99	8.37	10.50	28,274.59	19,294.50	-0.22
1/1/2023 1:02:00 PM	94.49	1,255.61	40.14	600.98	8.37	10.48	28,277.90	19,296.22	-0.22
1/2/2023 1:02:00 AM	94.49	1,255.45	40.16	600.96	8.37	10.46	28,273.80	19,293.36	-0.22
1/2/2023 1:02:00 PM	94.49	1,255.37	40.17	600.95	8.37	10.40	28,270.91	19,290.79	-0.22
1/3/2023 1:02:00 AM	94.49	1,255.33	40.17	600.95	8.37	10.38	28,273.81	19,293.88	-0.22
1/3/2023 1:02:00 PM	94.49	1,255.45	40.16	600.96	8.37	10.34	28,274.90	19,294.36	-0.21
1/4/2023 1:02:00 AM	94.49	1,255.61	40.14	600.98	8.37	10.34	28,279.22	19,296.50	-0.21
1/4/2023 1:02:00 PM	94.49	1,256.28	40.08	601.04	8.37	10.34	28,279.83	19,296.96	-0.21
1/5/2023 1:02:00 AM	94.49	1,256.23	40.08	601.04	8.37	10.32	28,281.72	19,298.48	-0.21
1/5/2023 1:02:00 PM	94.49	1,256.03	40.10	601.02	8.37	10.29	28,282.35	19,299.01	-0.21
1/6/2023 1:02:00 AM	94.49	1,255.60	40.14	600.98	8.37	10.24	28,281.77	19,298.83	-0.21
1/6/2023 1:02:00 PM	94.49	1,255.75	40.13	600.99	8.37	10.24	28,284.09	19,300.30	-0.21
1/7/2023 1:02:00 AM	94.49	1,256.08	40.10	601.02	8.37	10.23	28,287.93	19,303.01	-0.21
1/7/2023 1:02:00 PM	94.49	1,256.17	40.09	601.03	8.37	10.22	28,290.55	19,304.79	-0.21
1/8/2023 1:02:00 AM	94.49	1,255.78	40.13	600.99	8.37	10.21	28,288.84	19,304.05	-0.21
1/8/2023 1:02:00 PM	94.49	1,255.61	40.14	600.98	8.37	10.19	28,282.05	19,299.22	-0.22
1/9/2023 1:02:00 AM	94.49	1,255.73	40.13	600.99	8.37	10.19	28,291.91	19,305.60	-0.20
1/9/2023 1:02:00 PM	94.49	1,255.30	40.17	600.95	8.37	10.19	28,283.56	19,299.15	-0.22
1/10/2023 1:02:00 AM	94.49	1,255.84	40.12	601.00	8.37	10.18	28,290.70	19,305.41	-0.21
1/10/2023 1:02:00 PM	94.49	1,255.54	40.15	600.97	8.37	10.18	28,290.47	19,305.43	-0.21
1/11/2023 1:02:00 AM	94.49	1,256.21	40.08	601.04	8.37	10.19	28,292.98	19,307.07	-0.21
1/11/2023 1:02:00 PM	94.49	1,256.49	40.05	601.07	8.37	10.18	28,289.90	19,304.82	-0.21
1/12/2023 1:02:00 AM	94.49	1,256.68	40.04	601.08	8.37	10.17	28,290.67	19,305.05	-0.21
1/12/2023 1:02:00 PM	94.49	1,256.32	40.07	601.05	8.37	10.17	28,289.74	19,304.12	-0.21
1/13/2023 1:02:00 AM	94.49	1,255.64	40.14	600.98	8.37	10.17	28,292.55	19,306.84	-0.21
1/13/2023 1:02:00 PM	94.49	1,255.41	40.16	600.96	8.37	10.16	28,294.29	19,307.31	-0.21
1/14/2023 1:02:00 AM	94.49	1,255.18	40.19	600.93	8.37	10.36	28,298.54	19,311.13	-0.23
1/14/2023 1:02:00 PM	94.49	1,255.21	40.18	600.94	8.37	10.21	28,301.29	19,312.30	-0.22
1/15/2023 1:02:00 AM	94.49	1,254.90	40.21	600.91	8.37	10.19	28,304.75	19,314.55	-0.22
1/15/2023 1:02:00 PM	94.49	1,255.13	40.19	600.93	8.37	10.19	28,308.56	19,317.70	-0.22
1/16/2023 1:02:00 AM	94.49	1,255.36	40.17	600.95	8.37	10.18	28,309.74	19,318.39	-0.22
1/16/2023 1:02:00 PM	94.49	1,255.72	40.13	600.99	8.37	10.17	28,309.15	19,317.29	-0.22
1/17/2023 1:02:00 AM	94.49	1,255.48	40.16	600.96	8.37	10.16	28,308.15	19,317.01	-0.22
1/17/2023 1:02:00 PM	94.49	1,255.61	40.14	600.98	8.37	10.15	28,307.24	19,316.09	-0.22
1/18/2023 1:02:00 AM	94.49	1,255.84	40.12	601.00	8.37	10.16	28,306.31	19,315.15	-0.22
1/18/2023 1:02:00 PM	94.49	1,255.82	40.12	601.00	8.37	10.15	28,305.92	19,315.83	-0.22
1/19/2023 1:02:00 AM	94.49	1,255.92	40.11	601.01	8.37	10.16	28,310.11	19,318.46	-0.22
1/19/2023 1:02:00 PM	94.49	1,256.18	40.09	601.03	8.37	10.16	28,307.73	19,316.81	-0.22
1/20/2023 1:02:00 AM	94.49	1,256.34	40.07	601.05	8.37	10.17	28,306.57	19,316.07	-0.22
1/20/2023 1:02:00 PM	94.49	1,255.88	40.12	601.00	8.37	10.18	28,308.36	19,317.24	-0.22
1/21/2023 1:02:00 AM	94.49	1,256.35	40.07	601.05	8.37	10.18	28,308.11	19,317.43	-0.22
1/21/2023 1:02:00 PM	94.49	1,255.77	40.13	600.99	8.34	10.18	28,312.43	19,301.25	-0.22
1/22/2023 1:02:00 AM	94.49	1,255.28	40.18	600.94	8.37	10.18	28,314.19	19,321.06	-0.22
1/22/2023 1:02:00 PM	94.49	1,256.09	40.10	601.02	8.37	10.19	28,318.59	19,324.64	-0.22
1/23/2023 1:02:00 AM	94.49	1,256.26	40.08	601.04	8.37	10.23	28,317.07	19,323.35	-0.22
1/23/2023 1:02:00 PM	94.49	1,255.38	40.17	600.95	8.37	10.21	28,313.44	19,320.44	-0.23
1/24/2023 1:02:00 AM	94.49	1,256.21	40.08	601.04	8.37	10.25	28,323.37	19,326.71	-0.23
1/24/2023 1:02:00 PM	94.49	1,256.44	40.06	601.06	8.37	10.22	28,317.08	19,323.36	-0.23
1/25/2023 1:02:00 AM	94.49	1,256.63	40.04	601.08	8.37	10.21	28,310.93	19,318.52	-0.23
1/25/2023 1:02:00 PM	94.49	1,256.88	40.02	601.10	8.37	10.21	28,307.84	19,317.03	-0.23
1/26/2023 1:02:00 AM	94.49	1,256.02	40.10	601.02	8.37	10.22	28,303.80	19,313.89	-0.23
1/26/2023 1:02:00 PM	94.49	1,256.27	40.08	601.04	8.37	10.24	28,310.14	19,318.46	-0.23
1/27/2023 1:02:00 AM	94.49	1,256.25	40.08	601.04	8.37	10.23	28,313.11	19,320.70	-0.23
1/27/2023 1:02:00 PM	94.49	1,256.80	40.02	601.10	8.37	10.24	28,309.75	19,318.50	-0.23
1/28/2023 1:02:00 AM	94.49	1,257.75	39.93	601.19	8.37	10.24	28,308.48	19,317.27	-0.23
1/28/2023 1:02:00 PM	94.49	1,257.38	39.97	601.15	8.37	10.27	28,305.72	19,314.89	-0.23
1/29/2023 1:02:00 AM	94.49	1,257.42	39.96	601.16	8.37	10.27	28,299.16	19,312.18	-0.24

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 1:02:00 PM	94.49	1,256.74	40.03	601.09	8.37	10.29	28,304.81	19,315.79	-0.24
1/30/2023 1:02:00 AM	94.49	1,256.59	40.05	601.07	8.37	10.36	28,310.08	19,319.40	-0.24
1/30/2023 1:02:00 PM	94.49	1,256.51	40.05	601.07	8.37	10.34	28,308.30	19,318.56	-0.24
1/31/2023 1:02:00 AM	94.49	1,256.16	40.09	601.03	8.37	10.31	28,318.74	19,326.14	-0.25
1/31/2023 1:02:00 PM	94.49	1,256.02	40.10	601.02	8.37	10.32	28,323.78	19,328.98	-0.24
2/1/2023 1:02:00 AM	94.49	1,256.17	40.09	601.03	8.37	10.32	28,324.27	19,329.19	-0.24
2/1/2023 1:02:00 PM	94.49	1,257.12	39.99	601.13	8.37	10.32	28,320.22	19,326.88	-0.25
2/2/2023 1:02:00 AM	94.49	1,257.07	40.00	601.12	8.37	10.35	28,313.18	19,321.49	-0.24
2/2/2023 1:02:00 PM	94.49	1,256.72	40.03	601.09	8.37	10.51	28,311.81	19,319.62	-0.25
2/3/2023 1:02:00 AM	94.49	1,255.77	40.13	600.99	8.37	10.37	28,313.57	19,320.99	-0.25
2/3/2023 1:02:00 PM	94.49	1,255.87	40.12	601.00	8.37	10.36	28,317.67	19,323.51	-0.25
2/4/2023 1:02:00 AM	94.49	1,255.44	40.16	600.96	8.37	10.47	28,326.18	19,329.66	-0.26
2/4/2023 1:02:00 PM	94.49	1,256.25	40.08	601.04	8.37	10.36	28,328.58	19,332.39	-0.25
2/5/2023 1:02:00 AM	94.49	1,255.46	40.16	600.96	8.37	10.34	28,325.31	19,328.94	-0.25
2/5/2023 1:02:00 PM	94.49	1,254.74	40.23	600.89	8.37	10.36	28,325.28	19,328.79	-0.26
2/6/2023 1:02:00 AM	94.49	1,255.53	40.15	600.97	8.37	10.35	28,329.40	19,333.43	-0.25
2/6/2023 1:02:00 PM	94.49	1,255.52	40.15	600.97	8.37	10.35	28,327.46	19,332.04	-0.25
2/7/2023 1:02:00 AM	94.49	1,255.48	40.16	600.96	8.37	10.35	28,331.63	19,334.33	-0.25
2/7/2023 1:02:00 PM	94.49	1,255.98	40.11	601.01	8.37	10.47	28,328.30	19,331.56	-0.26
2/8/2023 1:02:00 AM	94.49	1,255.81	40.12	601.00	8.37	10.40	28,328.72	19,331.33	-0.25
2/8/2023 1:02:00 PM	94.49	1,256.73	40.03	601.09	8.37	10.41	28,320.57	19,325.45	-0.25
2/9/2023 1:02:00 AM	94.49	1,256.87	40.02	601.10	8.37	10.40	28,318.61	19,324.02	-0.25
2/9/2023 1:02:00 PM	94.49	1,256.45	40.06	601.06	8.37	10.40	28,314.29	19,321.52	-0.25
2/10/2023 1:02:00 AM	94.49	1,256.23	40.08	601.04	8.37	10.39	28,321.96	19,327.28	-0.25
2/10/2023 1:02:00 PM	94.49	1,255.53	40.15	600.97	8.37	10.45	28,326.58	19,330.88	-0.25
2/11/2023 1:02:00 AM	94.49	1,256.13	40.09	601.03	8.37	10.39	28,324.66	19,328.79	-0.25
2/11/2023 1:02:00 PM	94.49	1,255.76	40.13	600.99	8.37	10.47	28,319.42	19,325.29	-0.25
2/12/2023 1:02:00 AM	94.49	1,255.92	40.11	601.01	8.37	10.44	28,320.75	19,326.31	-0.25
2/12/2023 1:02:00 PM	94.49	1,255.30	40.17	600.95	8.37	10.44	28,319.98	19,326.13	-0.26
2/13/2023 1:02:00 AM	94.49	1,254.97	40.21	600.91	8.37	10.41	28,325.11	19,329.23	-0.26
2/13/2023 1:02:00 PM	94.49	1,254.91	40.21	600.91	8.37	10.41	28,331.06	19,334.09	-0.25
2/14/2023 1:02:00 AM	94.49	1,256.36	40.07	601.05	8.38	10.42	28,327.83	19,332.87	-0.25
2/14/2023 1:02:00 PM	94.49	1,256.56	40.05	601.07	8.37	10.43	28,319.86	19,326.82	-0.25
2/15/2023 1:02:00 AM	94.49	1,257.10	39.99	601.13	8.37	10.43	28,312.99	19,320.79	-0.25
2/15/2023 1:02:00 PM	94.49	1,256.34	40.07	601.05	8.37	10.43	28,317.68	19,323.85	-0.25
2/16/2023 1:02:00 AM	94.37	1,254.34	40.20	600.92	8.38	11.43	27,599.89	18,836.96	-0.23
2/16/2023 1:02:00 PM	94.37	1,253.43	40.29	600.83	8.34	11.57	27,696.00	18,882.44	-0.23
2/17/2023 1:02:00 AM	94.37	1,254.88	40.14	600.98	8.37	10.98	27,653.82	18,870.55	-0.23
2/17/2023 1:02:00 PM	94.37	1,255.21	40.11	601.01	8.37	10.76	27,666.33	18,879.99	-0.21
2/18/2023 1:02:00 AM	94.37	1,254.77	40.15	600.97	8.38	10.75	27,766.20	18,950.75	-0.22
2/18/2023 1:02:00 PM	94.37	1,255.82	40.05	601.07	8.38	10.77	27,841.80	19,002.98	-0.22
2/19/2023 1:02:00 AM	94.37	1,255.18	40.11	601.01	8.38	10.76	27,879.39	19,028.54	-0.22
2/19/2023 1:02:00 PM	94.37	1,254.58	40.17	600.95	8.38	10.76	27,927.65	19,061.92	-0.22
2/20/2023 1:02:00 AM	94.37	1,255.27	40.10	601.02	8.38	10.72	27,943.63	19,073.07	-0.22
2/20/2023 1:02:00 PM	94.37	1,255.43	40.09	601.03	8.38	10.68	27,951.64	19,077.34	-0.22
2/21/2023 1:02:00 AM	94.37	1,255.42	40.09	601.03	8.38	10.61	27,956.15	19,080.39	-0.21
2/21/2023 1:02:00 PM	94.37	1,255.97	40.03	601.09	8.38	10.57	27,960.02	19,083.21	-0.21
2/22/2023 1:02:00 AM	94.37	1,256.50	39.98	601.14	8.38	10.54	27,957.09	19,081.08	-0.21
2/22/2023 1:02:00 PM	94.37	1,256.77	39.95	601.17	8.38	10.55	27,958.96	19,082.24	-0.20
2/23/2023 1:02:00 AM	94.37	1,257.02	39.93	601.19	8.38	10.53	27,965.09	19,085.88	-0.20
2/23/2023 1:02:00 PM	94.37	1,257.41	39.89	601.23	8.38	10.52	27,967.75	19,088.40	-0.20
2/24/2023 1:02:00 AM	94.37	1,256.43	39.99	601.13	8.38	10.50	27,970.13	19,090.08	-0.20
2/24/2023 1:02:00 PM	94.37	1,255.50	40.08	601.04	8.38	10.47	27,971.61	19,090.43	-0.20
2/25/2023 1:02:00 AM	94.37	1,254.90	40.14	600.98	8.38	10.48	27,987.87	19,102.23	-0.20
2/25/2023 1:02:00 PM	94.37	1,254.71	40.16	600.96	8.38	10.46	27,990.33	19,103.69	-0.20
2/26/2023 1:02:00 AM	94.37	1,254.24	40.21	600.91	8.38	10.47	27,994.18	19,105.96	-0.21
2/26/2023 1:02:00 PM	94.37	1,254.00	40.23	600.89	8.38	10.50	28,004.64	19,112.59	-0.21
2/27/2023 1:02:00 AM	94.37	1,254.26	40.21	600.91	8.38	10.51	28,002.15	19,111.56	-0.21
2/27/2023 1:02:00 PM	94.37	1,254.98	40.13	600.99	8.38	10.55	27,995.41	19,106.25	-0.22
2/28/2023 1:02:00 AM	94.37	1,255.03	40.13	600.99	8.38	10.55	27,992.65	19,104.00	-0.21
2/28/2023 1:02:00 PM	94.37	1,255.40	40.09	601.03	8.38	10.57	27,986.14	19,099.70	-0.21
3/1/2023 1:03:00 AM	94.37	1,255.19	40.11	601.01	8.38	10.58	27,990.68	19,103.03	-0.21
3/1/2023 1:03:00 PM	94.37	1,254.61	40.17	600.95	8.38	10.56	27,993.14	19,104.86	-0.22
3/2/2023 1:03:00 AM	94.37	1,254.04	40.23	600.89	8.38	10.57	27,990.62	19,102.76	-0.22
3/2/2023 1:03:00 PM	94.37	1,253.55	40.28	600.84	8.38	10.58	27,996.28	19,106.79	-0.22
3/3/2023 1:03:00 AM	94.37	1,254.41	40.19	600.93	8.38	10.59	27,995.02	19,105.98	-0.22
3/3/2023 1:03:00 PM	94.37	1,254.63	40.17	600.95	8.38	10.60	27,985.78	19,099.72	-0.22
3/4/2023 1:03:00 AM	94.37	1,255.26	40.11	601.01	8.38	10.64	27,982.30	19,096.65	-0.22
3/4/2023 1:03:00 PM	94.37	1,255.66	40.06	601.06	8.38	10.65	27,976.06	19,093.16	-0.22
3/5/2023 1:03:00 AM	94.37	1,256.25	40.01	601.11	8.38	10.64	27,967.73	19,087.69	-0.22

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/5/2023 1:03:00 PM	94.37	1,256.89	39.94	601.18	8.38	10.65	27,955.13	19,079.74	-0.22
3/6/2023 1:03:00 AM	94.37	1,256.67	39.96	601.16	8.38	10.64	27,949.38	19,075.62	-0.22
3/6/2023 1:03:00 PM	94.37	1,256.73	39.96	601.16	8.38	10.65	27,944.62	19,072.73	-0.22
3/7/2023 1:03:00 AM	94.37	1,257.05	39.93	601.19	8.38	10.65	27,938.84	19,068.49	-0.23
3/7/2023 1:03:00 PM	94.37	1,256.72	39.96	601.16	8.38	10.66	27,934.52	19,065.29	-0.23
3/8/2023 1:03:00 AM	94.37	1,256.96	39.93	601.19	8.38	10.68	27,931.13	19,062.87	-0.23
3/8/2023 1:03:00 PM	94.37	1,257.42	39.89	601.23	8.38	10.68	27,922.52	19,057.02	-0.23
3/9/2023 1:03:00 AM	94.37	1,256.80	39.95	601.17	8.38	10.69	27,894.90	19,037.80	-0.23
3/9/2023 1:03:00 PM	94.37	1,256.27	40.00	601.12	8.38	10.70	27,887.67	19,033.62	-0.23
3/10/2023 1:03:00 AM	94.37	1,255.39	40.09	601.03	8.38	10.70	27,901.88	19,041.73	-0.23
3/10/2023 1:03:00 PM	94.37	1,255.39	40.09	601.03	8.38	10.75	27,909.48	19,047.40	-0.23
3/11/2023 1:03:00 AM	94.37	1,255.99	40.03	601.09	8.38	10.70	27,910.36	19,047.51	-0.23
3/11/2023 1:03:00 PM	94.37	1,256.38	39.99	601.13	8.38	10.71	27,905.69	19,044.54	-0.23
3/12/2023 1:03:00 AM	94.37	1,256.10	40.02	601.10	8.38	10.73	27,889.15	19,033.36	-0.23
3/12/2023 2:03:00 PM	94.37	1,256.04	40.03	601.09	8.38	10.70	27,868.88	19,019.80	-0.24
3/13/2023 2:03:00 AM	94.37	1,255.50	40.08	601.04	8.37	10.72	27,877.83	19,025.09	-0.26
3/13/2023 2:03:00 PM	94.37	1,254.82	40.15	600.97	8.37	10.71	27,901.04	19,040.95	-0.25
3/14/2023 2:03:00 AM	94.37	1,254.74	40.16	600.96	8.38	10.73	27,904.25	19,043.67	-0.27
3/14/2023 2:03:00 PM	94.37	1,255.17	40.11	601.01	8.38	10.82	27,910.92	19,048.71	-0.26
3/15/2023 2:03:00 AM	94.37	1,255.32	40.10	601.02	8.37	10.77	27,907.74	19,045.05	-0.26
3/15/2023 2:03:00 PM	94.37	1,255.45	40.09	601.03	8.37	10.81	27,909.88	19,046.84	-0.27
3/16/2023 2:03:00 AM	94.37	1,256.23	40.01	601.11	8.38	10.78	27,913.22	19,049.74	-0.26
3/16/2023 2:03:00 PM	94.37	1,256.27	40.00	601.12	8.37	10.77	27,905.47	19,043.92	-0.26
3/17/2023 2:03:00 AM	94.37	1,256.06	40.02	601.10	8.37	10.75	27,901.30	19,041.19	-0.26
3/17/2023 2:03:00 PM	94.37	1,256.16	40.01	601.11	8.37	10.73	27,906.37	19,044.58	-0.26
3/18/2023 2:03:00 AM	94.37	1,255.54	40.08	601.04	8.38	10.72	27,910.33	19,047.70	-0.26
3/18/2023 2:03:00 PM	94.37	1,255.81	40.05	601.07	8.37	10.71	27,916.22	19,051.30	-0.25
3/19/2023 2:03:00 AM	94.37	1,256.00	40.03	601.09	8.38	10.71	27,921.25	19,055.20	-0.26
3/19/2023 2:03:00 PM	94.37	1,256.04	40.03	601.09	8.37	10.71	27,931.34	19,061.19	-0.26
3/20/2023 2:03:00 AM	94.37	1,255.51	40.08	601.04	8.37	10.71	27,931.63	19,061.68	-0.26
3/20/2023 2:03:00 PM	94.37	1,255.54	40.08	601.04	8.37	10.76	27,936.30	19,064.92	-0.26
3/21/2023 2:03:00 AM	94.37	1,255.70	40.06	601.06	8.37	10.75	27,937.88	19,065.56	-0.26
3/21/2023 2:03:00 PM	94.37	1,255.54	40.08	601.04	8.37	10.76	27,938.78	19,066.24	-0.26
3/22/2023 2:03:00 AM	94.37	1,255.16	40.12	601.00	8.37	10.74	27,933.97	19,062.74	-0.26
3/22/2023 2:03:00 PM	94.37	1,255.12	40.12	601.00	8.37	10.74	27,939.96	19,067.69	-0.26
3/23/2023 2:03:00 AM	94.37	1,254.83	40.15	600.97	8.37	10.75	27,947.56	19,072.22	-0.26
3/23/2023 2:03:00 PM	94.37	1,255.23	40.11	601.01	8.37	10.76	27,946.20	19,071.84	-0.26
3/24/2023 2:03:00 AM	94.37	1,255.43	40.09	601.03	8.38	10.74	27,943.01	19,069.84	-0.26
3/24/2023 2:03:00 PM	94.37	1,255.65	40.07	601.05	8.38	10.79	27,940.78	19,068.52	-0.26
3/25/2023 2:03:00 AM	94.37	1,255.59	40.07	601.05	8.37	10.75	27,933.69	19,062.63	-0.27
3/25/2023 2:03:00 PM	94.37	1,255.69	40.06	601.06	8.38	10.73	27,935.99	19,065.06	-0.26
3/26/2023 2:03:00 AM	94.37	1,256.18	40.01	601.11	8.38	10.74	27,928.40	19,059.99	-0.26
3/26/2023 2:03:00 PM	94.37	1,256.55	39.98	601.14	8.38	10.78	27,922.65	19,056.59	-0.26
3/27/2023 2:03:00 AM	94.37	1,256.79	39.95	601.17	8.38	10.75	27,915.68	19,051.85	-0.26
3/27/2023 2:03:00 PM	94.37	1,256.93	39.94	601.18	8.37	10.73	27,913.22	19,049.25	-0.26
3/28/2023 2:03:00 AM	94.37	1,256.28	40.00	601.12	8.37	10.73	27,908.85	19,046.29	-0.26
3/28/2023 2:03:00 PM	94.37	1,256.31	40.00	601.12	8.37	10.74	27,916.16	19,051.23	-0.26
3/29/2023 2:03:00 AM	94.37	1,255.56	40.08	601.04	8.37	10.72	27,916.38	19,051.60	-0.27
3/29/2023 2:03:00 PM	94.37	1,255.18	40.11	601.01	8.37	10.73	27,915.59	19,051.01	-0.26
3/30/2023 2:03:00 AM	94.37	1,255.66	40.06	601.06	8.37	10.73	27,917.80	19,051.77	-0.27
3/30/2023 2:03:00 PM	94.37	1,255.40	40.09	601.03	8.37	10.73	27,921.05	19,053.53	-0.26
3/31/2023 2:03:00 AM	94.37	1,254.89	40.14	600.98	8.37	10.73	27,921.53	19,054.10	-0.26
3/31/2023 2:03:00 PM	94.37	1,254.75	40.16	600.96	8.37	10.75	27,928.90	19,059.60	-0.27
4/1/2023 2:03:00 AM	94.37	1,254.76	40.16	600.96	8.37	10.72	27,926.41	19,057.99	-0.27
4/1/2023 2:03:00 PM	94.37	1,254.71	40.16	600.96	8.37	10.72	27,925.90	19,057.75	-0.26
4/2/2023 2:03:00 AM	94.37	1,254.60	40.17	600.95	8.37	10.72	27,929.32	19,060.13	-0.26
4/2/2023 2:03:00 PM	94.37	1,255.17	40.11	601.01	8.37	10.72	27,928.15	19,059.10	-0.27
4/3/2023 2:03:00 AM	94.37	1,255.85	40.05	601.07	8.37	10.72	27,913.62	19,049.53	-0.27
4/3/2023 2:03:00 PM	94.37	1,255.95	40.04	601.08	8.37	10.73	27,909.97	19,046.59	-0.27
4/4/2023 2:03:00 AM	94.37	1,255.92	40.04	601.08	8.37	10.84	27,903.07	19,041.77	-0.27
4/4/2023 2:03:00 PM	94.37	1,255.88	40.04	601.08	8.37	10.79	27,901.09	19,040.63	-0.27
4/5/2023 2:03:00 AM	94.37	1,255.61	40.07	601.05	8.38	10.76	27,894.10	19,036.68	-0.27
4/5/2023 2:03:00 PM	94.37	1,255.62	40.07	601.05	8.37	10.74	27,893.80	19,036.19	-0.27
4/6/2023 2:03:00 AM	94.37	1,255.64	40.07	601.05	8.37	10.76	27,900.44	19,040.09	-0.27
4/6/2023 2:03:00 PM	94.37	1,255.56	40.08	601.04	8.38	10.73	27,892.44	19,035.77	-0.27
4/7/2023 2:03:00 AM	94.37	1,255.47	40.08	601.04	8.38	10.72	27,880.40	19,027.39	-0.27
4/7/2023 2:03:00 PM	94.37	1,254.87	40.14	600.98	8.38	10.72	27,886.21	19,031.29	-0.26
4/8/2023 2:03:00 AM	94.37	1,254.75	40.16	600.96	8.38	10.73	27,902.96	19,043.11	-0.27
4/8/2023 2:03:00 PM	94.37	1,255.03	40.13	600.99	8.37	10.66	27,902.70	19,041.59	-0.27
4/9/2023 2:03:00 AM	94.37	1,255.34	40.10	601.02	8.37	10.67	27,904.37	19,042.43	-0.27

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/9/2023 2:03:00 PM	94.37	1,255.32	40.10	601.02	8.37	10.69	27,900.01	19,039.50	-0.27
4/10/2023 2:03:00 AM	94.37	1,254.73	40.16	600.96	8.37	10.70	27,903.62	19,042.06	-0.26
4/10/2023 2:03:00 PM	94.37	1,255.64	40.07	601.05	8.37	10.71	27,904.61	19,043.19	-0.27
4/11/2023 2:03:00 AM	94.37	1,255.71	40.06	601.06	8.37	10.74	27,897.88	19,038.22	-0.27
4/11/2023 2:03:00 PM	94.37	1,254.87	40.14	600.98	8.37	10.71	27,901.74	19,041.06	-0.27
4/12/2023 2:03:00 AM	94.37	1,255.37	40.09	601.03	8.37	10.70	27,898.72	19,039.30	-0.27
4/12/2023 2:03:00 PM	94.37	1,255.30	40.10	601.02	8.37	10.70	27,899.19	19,039.61	-0.27
4/13/2023 2:03:00 AM	94.37	1,255.58	40.07	601.05	8.37	10.70	27,882.93	19,028.62	-0.26
4/13/2023 2:03:00 PM	94.37	1,255.29	40.10	601.02	8.37	10.70	27,869.91	19,019.36	-0.26
4/14/2023 2:03:00 AM	94.37	1,255.78	40.05	601.07	8.37	10.71	27,861.02	19,013.47	-0.26
4/14/2023 2:03:00 PM	94.37	1,255.85	40.05	601.07	8.37	10.71	27,860.41	19,013.16	-0.27
4/15/2023 2:03:00 AM	94.37	1,256.19	40.01	601.11	8.37	10.72	27,849.58	19,005.98	-0.26
4/15/2023 2:03:00 PM	94.37	1,256.29	40.00	601.12	8.37	10.74	27,848.16	19,004.14	-0.26
4/16/2023 2:03:00 AM	94.37	1,255.89	40.04	601.08	8.37	10.72	27,853.56	19,008.47	-0.26
4/16/2023 2:03:00 PM	94.37	1,255.75	40.06	601.06	8.37	10.71	27,861.58	19,013.56	-0.26
4/17/2023 2:03:00 AM	94.37	1,254.84	40.15	600.97	8.37	10.71	27,869.82	19,019.48	-0.26
4/17/2023 2:03:00 PM	94.37	1,254.97	40.13	600.99	8.38	10.71	27,885.81	19,030.84	-0.26
4/18/2023 2:03:00 AM	94.37	1,254.99	40.13	600.99	8.37	10.72	27,891.19	19,034.18	-0.26
4/18/2023 2:03:00 PM	94.37	1,255.70	40.06	601.06	8.37	10.71	27,883.88	19,029.07	-0.26
4/19/2023 2:03:00 AM	94.37	1,255.93	40.04	601.08	8.38	10.70	27,880.32	19,027.45	-0.26
4/19/2023 2:03:00 PM	94.37	1,256.06	40.02	601.10	8.37	10.68	27,875.65	19,023.29	-0.27
4/20/2023 2:03:00 AM	94.37	1,256.95	39.93	601.19	8.37	10.67	27,867.60	19,018.16	-0.27
4/20/2023 2:03:00 PM	94.37	1,256.61	39.97	601.15	8.37	10.67	27,859.15	19,012.07	-0.27
4/21/2023 2:03:00 AM	94.37	1,256.82	39.95	601.17	8.37	10.69	27,853.60	19,008.20	-0.27
4/21/2023 2:03:00 PM	94.37	1,257.19	39.91	601.21	8.37	10.72	27,844.83	19,001.76	-0.27
4/22/2023 2:03:00 AM	94.37	1,256.60	39.97	601.15	8.37	10.71	27,839.67	18,998.62	-0.29
4/22/2023 2:03:00 PM	94.37	1,256.19	40.01	601.11	8.37	10.71	27,843.90	19,002.05	-0.27
4/23/2023 2:03:00 AM	94.37	1,255.68	40.06	601.06	8.37	10.68	27,852.65	19,007.73	-0.27
4/23/2023 2:03:00 PM	94.37	1,255.52	40.08	601.04	8.38	10.69	27,857.72	19,011.75	-0.27
4/24/2023 2:03:00 AM	94.37	1,255.40	40.09	601.03	8.37	10.68	27,879.57	19,026.24	-0.27
4/24/2023 2:03:00 PM	94.37	1,255.82	40.05	601.07	8.37	10.67	27,882.73	19,028.16	-0.27
4/25/2023 2:03:00 AM	94.37	1,255.59	40.07	601.05	8.37	10.74	27,881.23	19,027.16	-0.28
4/25/2023 2:03:00 PM	94.37	1,255.62	40.07	601.05	8.37	10.72	27,882.33	19,027.88	-0.27
4/26/2023 2:03:00 AM	94.37	1,256.04	40.03	601.09	8.38	10.72	27,882.08	19,028.64	-0.27
4/26/2023 2:03:00 PM	94.37	1,255.49	40.08	601.04	8.37	10.68	27,877.21	19,024.06	-0.27
4/27/2023 2:03:00 AM	94.37	1,255.82	40.05	601.07	8.37	10.68	27,882.64	19,028.19	-0.27
4/27/2023 2:03:00 PM	94.37	1,256.37	39.99	601.13	8.37	10.66	27,883.03	19,028.48	-0.27
4/28/2023 2:03:00 AM	94.37	1,256.18	40.01	601.11	8.38	10.67	27,876.64	19,024.81	-0.27
4/28/2023 2:03:00 PM	94.37	1,256.07	40.02	601.10	8.37	10.66	27,873.32	19,021.31	-0.27
4/29/2023 2:03:00 AM	94.37	1,256.49	39.98	601.14	8.37	10.68	27,866.78	19,017.75	-0.27
4/29/2023 2:03:00 PM	94.37	1,256.39	39.99	601.13	8.37	10.66	27,857.32	19,011.25	-0.28
4/30/2023 2:03:00 AM	94.37	1,256.16	40.01	601.11	8.37	10.66	27,859.79	19,012.28	-0.27
4/30/2023 2:03:00 PM	94.37	1,256.17	40.01	601.11	8.37	10.67	27,865.36	19,016.16	-0.27
5/1/2023 2:03:00 AM	94.37	1,255.66	40.06	601.06	8.37	10.68	27,875.29	19,023.15	-0.27
5/1/2023 2:03:00 PM	94.37	1,255.60	40.07	601.05	8.37	10.69	27,882.76	19,027.57	-0.27
5/2/2023 2:03:00 AM	94.37	1,255.60	40.07	601.05	8.38	10.65	27,881.53	19,028.32	-0.27
5/2/2023 2:03:00 PM	94.37	1,256.02	40.03	601.09	8.37	10.66	27,872.26	19,021.14	-0.27
5/3/2023 2:03:00 AM	94.37	1,255.93	40.04	601.08	8.37	10.64	27,874.45	19,021.62	-0.27
5/3/2023 2:03:00 PM	94.37	1,255.42	40.09	601.03	8.37	10.65	27,869.60	19,019.45	-0.27
5/4/2023 2:03:00 AM	94.37	1,255.68	40.06	601.06	8.37	10.64	27,887.00	19,030.11	-0.28
5/4/2023 2:03:00 PM	94.37	1,255.45	40.09	601.03	8.37	10.65	27,889.42	19,032.29	-0.27
5/5/2023 2:03:00 AM	94.37	1,255.95	40.04	601.08	8.37	10.65	27,888.80	19,032.19	-0.27
5/5/2023 2:03:00 PM	94.37	1,256.17	40.01	601.11	8.37	10.66	27,887.91	19,031.24	-0.27
5/6/2023 2:03:00 AM	94.37	1,256.35	40.00	601.12	8.37	10.64	27,879.98	19,025.82	-0.26
5/6/2023 2:03:00 PM	94.37	1,255.96	40.03	601.09	8.37	10.63	27,875.30	19,023.19	-0.27
5/7/2023 2:04:00 AM	94.37	1,255.79	40.05	601.07	8.37	10.63	27,879.76	19,025.68	-0.27
5/7/2023 2:04:00 PM	94.37	1,255.93	40.04	601.08	8.37	10.64	27,882.41	19,028.00	-0.28
5/8/2023 2:04:00 AM	94.37	1,255.80	40.05	601.07	8.37	10.65	27,887.30	19,031.31	-0.28
5/8/2023 2:04:00 PM	94.37	1,255.66	40.07	601.05	8.37	10.65	27,894.98	19,036.96	-0.28
5/9/2023 2:04:00 AM	94.37	1,255.85	40.05	601.07	8.38	10.67	27,897.75	19,039.06	-0.28
5/9/2023 2:04:00 PM	94.37	1,255.79	40.05	601.07	8.37	10.65	27,900.25	19,039.92	-0.28
5/10/2023 2:04:00 AM	94.37	1,255.81	40.05	601.07	8.37	10.65	27,896.18	19,037.61	-0.27
5/10/2023 2:04:00 PM	-	-	-	-	8.97	11.59	28,017.12	19,441.15	-0.12
5/11/2023 2:04:00 AM	94.26	1,251.30	40.15	600.97	8.36	11.90	28,580.17	19,498.58	-0.35
5/11/2023 2:04:00 PM	94.26	1,254.22	39.86	601.26	8.37	11.87	28,489.99	19,440.04	-0.34
5/12/2023 2:04:00 AM	94.26	1,255.33	39.75	601.37	8.37	11.85	28,504.40	19,451.48	-0.35
5/12/2023 2:04:00 PM	94.26	1,256.07	39.67	601.45	8.37	11.81	28,498.65	19,448.35	-0.35
5/13/2023 2:04:00 AM	94.26	1,256.22	39.66	601.46	8.38	11.74	28,507.30	19,455.17	-0.35
5/13/2023 2:04:00 PM	94.26	1,256.58	39.62	601.50	8.38	11.60	28,516.39	19,461.19	-0.37
5/14/2023 2:04:00 AM	94.26	1,256.48	39.63	601.49	8.37	11.14	28,515.77	19,460.19	-0.33

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/14/2023 2:04:00 PM	94.26	1,256.42	39.64	601.48	8.38	10.98	28,533.37	19,473.53	-0.31
5/15/2023 2:04:00 AM	94.26	1,256.34	39.65	601.47	8.38	10.94	28,543.93	19,479.96	-0.31
5/15/2023 2:04:00 PM	94.26	1,255.82	39.70	601.42	8.38	10.94	28,569.12	19,497.67	-0.30
5/16/2023 2:04:00 AM	94.26	1,255.28	39.75	601.37	8.38	10.84	28,580.14	19,505.51	-0.29
5/16/2023 2:04:00 PM	94.26	1,256.04	39.68	601.44	8.37	10.81	28,594.01	19,513.68	-0.28
5/17/2023 2:04:00 AM	94.26	1,255.96	39.68	601.44	8.38	10.80	28,605.50	19,522.43	-0.28
5/17/2023 2:04:00 PM	94.26	1,255.51	39.73	601.39	8.38	10.77	28,612.25	19,527.19	-0.27
5/18/2023 2:04:00 AM	94.26	1,256.11	39.67	601.45	8.38	10.65	28,632.52	19,540.47	-0.27
5/18/2023 2:04:00 PM	94.26	1,255.76	39.70	601.42	8.38	10.64	28,636.22	19,543.38	-0.28
5/19/2023 2:04:00 AM	94.26	1,255.80	39.70	601.42	8.38	10.64	28,645.75	19,549.56	-0.27
5/19/2023 2:04:00 PM	94.26	1,255.15	39.77	601.35	8.38	10.58	28,648.38	19,551.25	-0.26
5/20/2023 2:04:00 AM	94.26	1,255.80	39.70	601.42	8.38	10.50	28,649.81	19,552.66	-0.26
5/20/2023 2:04:00 PM	94.26	1,255.63	39.72	601.40	8.38	10.49	28,658.61	19,558.18	-0.25
5/21/2023 2:04:00 AM	94.26	1,255.68	39.71	601.41	8.38	10.49	28,662.98	19,561.55	-0.26
5/21/2023 2:04:00 PM	94.26	1,255.50	39.73	601.39	8.38	10.48	28,667.70	19,564.95	-0.25
5/22/2023 2:04:00 AM	94.26	1,255.26	39.75	601.37	8.38	10.47	28,669.21	19,565.52	-0.26
5/22/2023 2:04:00 PM	94.26	1,254.82	39.80	601.32	8.38	10.47	28,665.97	19,563.74	-0.26
5/23/2023 2:04:00 AM	94.26	1,255.77	39.70	601.42	8.38	10.47	28,671.24	19,568.19	-0.26
5/23/2023 2:04:00 PM	94.26	1,255.10	39.77	601.35	8.38	10.47	28,674.89	19,569.51	-0.26
5/24/2023 2:04:00 AM	94.26	1,255.62	39.72	601.40	8.38	10.47	28,675.24	19,570.42	-0.26
5/24/2023 2:04:00 PM	94.26	1,255.58	39.72	601.40	8.38	10.47	28,676.72	19,571.18	-0.26
5/25/2023 2:04:00 AM	94.26	1,255.98	39.68	601.44	8.38	10.46	28,680.76	19,574.68	-0.26
5/25/2023 2:04:00 PM	94.26	1,256.45	39.63	601.49	8.38	10.47	28,681.25	19,574.50	-0.26
5/26/2023 2:04:00 AM	94.26	1,256.04	39.68	601.44	8.38	10.46	28,680.18	19,573.96	-0.26
5/26/2023 2:04:00 PM	94.26	1,255.77	39.70	601.42	8.38	10.47	28,683.15	19,574.90	-0.26
5/27/2023 2:04:00 AM	94.26	1,255.74	39.71	601.41	8.38	10.47	28,681.98	19,574.20	-0.26
5/27/2023 2:04:00 PM	94.26	1,255.36	39.74	601.38	8.37	10.47	28,684.67	19,575.51	-0.26
5/28/2023 2:04:00 AM	94.26	1,255.27	39.75	601.37	8.38	10.48	28,682.39	19,574.85	-0.28
5/28/2023 2:04:00 PM	94.26	1,255.21	39.76	601.36	8.38	10.47	28,684.15	19,576.19	-0.27
5/29/2023 2:04:00 AM	94.26	1,255.60	39.72	601.40	8.38	10.48	28,682.95	19,575.83	-0.27
5/29/2023 2:04:00 PM	94.26	1,255.08	39.77	601.35	8.38	10.49	28,683.00	19,575.19	-0.28
5/30/2023 2:04:00 AM	94.26	1,255.32	39.75	601.37	8.38	10.48	28,682.86	19,575.42	-0.28
5/30/2023 2:04:00 PM	94.26	1,255.25	39.76	601.36	8.38	10.49	28,680.63	19,574.50	-0.28
5/31/2023 2:04:00 AM	94.26	1,255.78	39.70	601.42	8.38	10.49	28,682.35	19,575.15	-0.28
5/31/2023 2:04:00 PM	94.26	1,255.68	39.71	601.41	8.38	10.49	28,685.48	19,578.12	-0.28
6/1/2023 2:04:00 AM	94.26	1,255.81	39.70	601.42	8.38	10.50	28,687.46	19,579.25	-0.29
6/1/2023 2:04:00 PM	94.26	1,256.22	39.66	601.46	8.38	10.50	28,682.94	19,575.68	-0.29
6/2/2023 2:04:00 AM	94.26	1,256.52	39.63	601.49	8.38	10.51	28,682.92	19,575.06	-0.28
6/2/2023 2:04:00 PM	94.26	1,256.34	39.65	601.47	8.38	10.51	28,686.84	19,578.24	-0.29
6/3/2023 2:04:00 AM	94.26	1,256.30	39.65	601.47	8.38	10.52	28,685.41	19,577.51	-0.30
6/3/2023 2:04:00 PM	94.26	1,256.17	39.66	601.46	8.37	10.52	28,684.38	19,575.59	-0.29
6/4/2023 2:04:00 AM	94.26	1,256.06	39.67	601.45	8.38	10.52	28,684.22	19,576.01	-0.29
6/4/2023 2:04:00 PM	94.26	1,256.06	39.67	601.45	8.38	10.53	28,680.77	19,574.17	-0.30
6/5/2023 2:04:00 AM	94.26	1,255.90	39.69	601.43	8.38	10.54	28,684.06	19,575.92	-0.30
6/5/2023 2:04:00 PM	94.26	1,255.67	39.71	601.41	8.38	10.54	28,676.85	19,571.98	-0.30
6/6/2023 2:04:00 AM	94.26	1,255.94	39.69	601.43	8.38	10.54	28,676.94	19,572.00	-0.30
6/6/2023 2:04:00 PM	94.26	1,256.18	39.66	601.46	8.38	10.55	28,676.99	19,571.17	-0.30
6/7/2023 2:04:00 AM	94.26	1,255.40	39.74	601.38	8.38	10.56	28,672.25	19,568.52	-0.30
6/7/2023 2:04:00 PM	94.26	1,255.59	39.72	601.40	8.38	10.56	28,672.13	19,567.84	-0.31
6/8/2023 2:04:00 AM	94.26	1,255.91	39.69	601.43	8.38	10.56	28,668.16	19,565.67	-0.31
6/8/2023 2:04:00 PM	94.26	1,256.13	39.67	601.45	8.38	10.57	28,667.74	19,564.97	-0.30
6/9/2023 2:04:00 AM	94.26	1,255.85	39.69	601.43	8.38	10.57	28,671.28	19,566.77	-0.31
6/9/2023 2:04:00 PM	94.26	1,255.61	39.72	601.40	8.38	10.57	28,667.42	19,564.65	-0.31
6/10/2023 2:04:00 AM	94.26	1,255.54	39.73	601.39	8.37	10.57	28,670.66	19,566.17	-0.31
6/10/2023 2:04:00 PM	94.26	1,255.84	39.70	601.42	8.38	10.58	28,666.68	19,564.21	-0.31
6/11/2023 2:04:00 AM	94.26	1,255.67	39.71	601.41	8.38	10.58	28,663.05	19,561.86	-0.33
6/11/2023 2:04:00 PM	94.26	1,255.62	39.72	601.40	8.38	10.59	28,663.41	19,562.23	-0.32
6/12/2023 2:04:00 AM	94.26	1,255.94	39.69	601.43	8.38	10.58	28,665.21	19,563.41	-0.32
6/12/2023 2:04:00 PM	94.26	1,255.70	39.71	601.41	8.38	10.59	28,665.54	19,563.27	-0.32
6/13/2023 2:04:00 AM	94.26	1,255.56	39.72	601.40	8.38	10.59	28,661.51	19,560.28	-0.34
6/13/2023 2:04:00 PM	94.26	1,254.77	39.80	601.32	8.38	10.60	28,661.60	19,561.15	-0.34
6/14/2023 2:04:00 AM	94.26	1,254.24	39.86	601.26	8.38	10.59	28,663.42	19,562.24	-0.34
6/14/2023 2:04:00 PM	94.26	1,254.38	39.84	601.28	8.38	10.60	28,664.20	19,562.56	-0.34
6/15/2023 2:04:00 AM	94.26	1,254.95	39.79	601.33	8.38	10.60	28,655.68	19,556.61	-0.34
6/15/2023 2:04:00 PM	94.26	1,255.93	39.69	601.43	8.38	10.61	28,648.88	19,551.92	-0.33
6/16/2023 2:04:00 AM	94.26	1,256.24	39.66	601.46	8.38	10.61	28,651.97	19,553.72	-0.34
6/16/2023 2:04:00 PM	94.26	1,255.19	39.76	601.36	8.38	10.62	28,650.62	19,553.16	-0.35
6/17/2023 2:04:00 AM	94.26	1,255.68	39.71	601.41	8.38	10.62	28,651.73	19,554.26	-0.35
6/17/2023 2:04:00 PM	94.26	1,255.43	39.74	601.38	8.38	10.62	28,652.37	19,554.35	-0.34
6/18/2023 2:04:00 AM	94.26	1,255.05	39.78	601.34	8.37	10.62	28,658.73	19,558.02	-0.35

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/18/2023 2:04:00 PM	94.26	1,254.55	39.83	601.29	8.38	10.62	28,659.59	19,559.54	-0.35
6/19/2023 2:04:00 AM	94.26	1,254.42	39.84	601.28	8.37	10.62	28,659.56	19,558.28	-0.35
6/19/2023 2:04:00 PM	94.26	1,255.14	39.77	601.35	8.37	10.62	28,666.86	19,563.19	-0.35
6/20/2023 2:04:00 AM	94.26	1,255.78	39.70	601.42	8.37	10.63	28,666.68	19,563.38	-0.36
6/20/2023 2:04:00 PM	94.26	1,256.24	39.66	601.46	8.38	10.63	28,665.78	19,563.30	-0.34
6/21/2023 2:04:00 AM	94.26	1,256.50	39.63	601.49	8.38	10.63	28,664.91	19,562.61	-0.33
6/21/2023 2:04:00 PM	94.26	1,256.84	39.60	601.52	8.38	10.63	28,671.90	19,567.26	-0.35
6/22/2023 2:04:00 AM	94.26	1,256.34	39.65	601.47	8.37	10.63	28,672.48	19,567.30	-0.35
6/22/2023 2:04:00 PM	94.26	1,256.58	39.62	601.50	8.38	10.62	28,673.01	19,568.15	-0.34
6/23/2023 2:04:00 AM	94.26	1,256.36	39.64	601.48	8.38	10.61	28,672.51	19,567.99	-0.35
6/23/2023 2:04:00 PM	94.26	1,256.41	39.64	601.48	8.38	10.62	28,676.06	19,570.43	-0.36
6/24/2023 2:04:00 AM	94.26	1,256.36	39.64	601.48	8.37	10.63	28,673.53	19,568.18	-0.37
6/24/2023 2:04:00 PM	94.26	1,256.00	39.68	601.44	8.38	10.64	28,677.97	19,572.00	-0.37
6/25/2023 2:04:00 AM	94.26	1,255.90	39.69	601.43	8.37	10.64	28,680.04	19,572.77	-0.37
6/25/2023 2:04:00 PM	94.26	1,256.19	39.66	601.46	8.38	10.66	28,677.44	19,571.80	-0.35
6/26/2023 2:04:00 AM	94.26	1,256.48	39.63	601.49	8.38	10.64	28,673.88	19,569.38	-0.35
6/26/2023 2:04:00 PM	94.26	1,256.21	39.66	601.46	8.38	10.64	28,670.29	19,566.35	-0.36
6/27/2023 2:04:00 AM	94.26	1,255.97	39.68	601.44	8.38	10.62	28,667.22	19,564.75	-0.36
6/27/2023 2:04:00 PM	94.26	1,255.94	39.69	601.43	8.38	10.62	28,662.02	19,560.55	-0.36
6/28/2023 2:04:00 AM	94.26	1,256.11	39.67	601.45	8.37	10.63	28,661.51	19,559.52	-0.37
6/28/2023 2:04:00 PM	94.26	1,256.29	39.65	601.47	8.38	10.62	28,626.57	19,536.96	-0.35
6/29/2023 2:04:00 AM	94.26	1,256.46	39.63	601.49	8.38	10.63	28,633.28	19,541.00	-0.36
6/29/2023 2:04:00 PM	94.26	1,256.32	39.65	601.47	8.37	10.63	28,636.37	19,542.87	-0.37
6/30/2023 2:04:00 AM	94.26	1,256.29	39.65	601.47	8.38	10.63	28,641.04	19,546.21	-0.37
6/30/2023 2:04:00 PM	94.26	1,256.20	39.66	601.46	8.37	10.64	28,640.59	19,545.49	-0.37
7/1/2023 2:04:00 AM	94.26	1,256.43	39.64	601.48	8.37	10.64	28,637.74	19,543.71	-0.37
7/1/2023 2:04:00 PM	94.26	1,256.36	39.64	601.48	8.37	10.65	28,642.40	19,546.90	-0.37
7/2/2023 2:04:00 AM	94.26	1,256.35	39.65	601.47	8.38	10.65	28,638.84	19,545.15	-0.37
7/2/2023 2:04:00 PM	94.26	1,256.11	39.67	601.45	8.38	10.72	28,651.06	19,553.19	-0.38
7/3/2023 2:04:00 AM	94.26	1,256.29	39.65	601.47	8.37	10.66	28,645.98	19,549.12	-0.37
7/3/2023 2:04:00 PM	94.26	1,256.71	39.61	601.51	8.38	10.66	28,647.70	19,551.03	-0.37
7/4/2023 2:04:00 AM	94.26	1,257.08	39.57	601.55	8.38	10.65	28,652.40	19,553.98	-0.36
7/4/2023 2:04:00 PM	94.26	1,257.00	39.58	601.54	8.37	10.65	28,642.00	19,546.31	-0.36
7/5/2023 2:04:00 AM	94.26	1,256.61	39.62	601.50	8.37	10.66	28,644.23	19,547.44	-0.37
7/5/2023 2:04:00 PM	94.26	1,256.52	39.63	601.49	8.37	10.65	28,651.62	19,552.72	-0.37
7/6/2023 2:04:00 AM	94.26	1,256.35	39.64	601.48	8.37	10.65	28,650.75	19,552.48	-0.38
7/6/2023 2:04:00 PM	94.26	1,256.31	39.65	601.47	8.37	10.64	28,652.37	19,553.27	-0.37
7/7/2023 2:04:00 AM	94.26	1,256.78	39.60	601.52	8.37	10.64	28,650.82	19,552.18	-0.38
7/7/2023 2:04:00 PM	94.26	1,256.76	39.60	601.52	8.37	10.64	28,655.81	19,555.78	-0.37
7/8/2023 2:04:00 AM	94.26	1,256.64	39.62	601.50	8.37	10.65	28,649.26	19,549.96	-0.38
7/8/2023 2:04:00 PM	94.26	1,256.01	39.68	601.44	8.37	10.64	28,655.24	19,554.80	-0.38
7/9/2023 2:04:00 AM	94.26	1,255.88	39.69	601.43	8.37	10.64	28,648.24	19,549.68	-0.38
7/9/2023 2:04:00 PM	94.26	1,256.27	39.65	601.47	8.37	10.65	28,657.28	19,555.80	-0.39
7/10/2023 2:04:00 AM	94.26	1,256.02	39.68	601.44	8.37	10.64	28,658.97	19,557.45	-0.39
7/10/2023 2:04:00 PM	94.26	1,256.26	39.65	601.47	8.37	10.64	28,661.73	19,558.78	-0.37
7/11/2023 2:04:00 AM	94.26	1,256.39	39.64	601.48	8.37	10.64	28,657.27	19,555.91	-0.37
7/11/2023 2:04:00 PM	94.26	1,256.48	39.63	601.49	8.38	10.66	28,657.78	19,557.84	-0.38
7/12/2023 2:04:00 AM	94.26	1,256.13	39.67	601.45	8.38	10.64	28,660.04	19,559.57	-0.38
7/12/2023 2:04:00 PM	94.26	1,256.56	39.62	601.50	8.38	10.64	28,663.05	19,561.51	-0.39
7/13/2023 2:05:00 AM	94.26	1,256.21	39.66	601.46	8.37	10.64	28,668.91	19,565.07	-0.39
7/13/2023 2:05:00 PM	94.26	1,256.61	39.62	601.50	8.37	10.63	28,663.20	19,561.17	-0.38
7/14/2023 2:05:00 AM	94.26	1,256.55	39.63	601.49	8.37	10.62	28,664.38	19,561.04	-0.39
7/14/2023 2:05:00 PM	94.26	1,256.57	39.62	601.50	8.37	10.62	28,667.86	19,563.61	-0.37
7/15/2023 2:05:00 AM	94.26	1,256.39	39.64	601.48	8.37	10.63	28,668.05	19,563.09	-0.39
7/15/2023 2:05:00 PM	94.26	1,256.29	39.65	601.47	8.37	10.63	28,670.21	19,565.20	-0.38
7/16/2023 2:05:00 AM	94.26	1,256.42	39.64	601.48	8.38	10.64	28,668.69	19,565.40	-0.39
7/16/2023 2:05:00 PM	94.26	1,256.19	39.66	601.46	8.37	10.62	28,673.51	19,567.82	-0.38
7/17/2023 2:05:00 AM	94.26	1,256.16	39.66	601.46	8.38	10.62	28,670.66	19,566.72	-0.39
7/17/2023 2:05:00 PM	94.26	1,255.69	39.71	601.41	8.37	10.62	28,677.33	19,570.41	-0.39
7/18/2023 2:05:00 AM	94.26	1,255.83	39.70	601.42	8.38	10.62	28,671.08	19,567.42	-0.37
7/18/2023 2:05:00 PM	94.26	1,256.61	39.62	601.50	8.37	10.62	28,673.93	19,568.53	-0.37
7/19/2023 2:05:00 AM	94.26	1,257.32	39.55	601.57	8.37	10.62	28,678.30	19,571.28	-0.36
7/19/2023 2:05:00 PM	94.26	1,257.62	39.52	601.60	8.38	10.62	28,661.78	19,560.47	-0.37
7/20/2023 2:05:00 AM	94.26	1,257.36	39.54	601.58	8.38	10.62	28,665.12	19,563.18	-0.38
7/20/2023 2:05:00 PM	94.26	1,257.23	39.56	601.56	8.37	10.62	28,659.84	19,558.82	-0.38
7/21/2023 2:05:00 AM	94.26	1,257.42	39.54	601.58	8.38	10.62	28,659.16	19,558.57	-0.38
7/21/2023 2:05:00 PM	94.26	1,256.86	39.59	601.53	8.37	10.62	28,650.18	19,551.57	-0.39
7/22/2023 2:05:00 AM	94.26	1,256.72	39.61	601.51	8.37	10.61	28,660.31	19,558.06	-0.39
7/22/2023 2:05:00 PM	94.26	1,256.57	39.62	601.50	8.37	10.62	28,662.63	19,560.41	-0.38
7/23/2023 2:05:00 AM	94.26	1,256.66	39.61	601.51	8.37	10.62	28,663.73	19,561.34	-0.39

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/23/2023 2:05:00 PM	94.26	1,256.58	39.62	601.50	8.38	10.61	28,655.90	19,556.61	-0.39
7/24/2023 2:05:00 AM	94.26	1,256.47	39.63	601.49	8.37	10.62	28,664.46	19,562.11	-0.40
7/24/2023 2:05:00 PM	94.26	1,256.52	39.63	601.49	8.37	10.62	28,675.07	19,569.00	-0.39
7/25/2023 2:05:00 AM	94.26	1,256.37	39.64	601.48	8.38	10.62	28,677.64	19,571.30	-0.39
7/25/2023 2:05:00 PM	94.26	1,256.59	39.62	601.50	8.37	10.62	28,687.58	19,577.60	-0.40
7/26/2023 2:05:00 AM	94.26	1,256.74	39.61	601.51	8.38	10.62	28,685.22	19,576.60	-0.39
7/26/2023 2:05:00 PM	94.26	1,256.42	39.64	601.48	8.37	10.62	28,694.38	19,582.39	-0.38
7/27/2023 2:05:00 AM	94.26	1,256.60	39.62	601.50	8.37	10.64	28,694.54	19,581.22	-0.39
7/27/2023 2:05:00 PM	94.26	1,257.35	39.54	601.58	8.37	10.62	28,695.53	19,581.83	-0.38
7/28/2023 2:05:00 AM	94.26	1,257.49	39.53	601.59	8.37	10.62	28,692.37	19,580.54	-0.38
7/28/2023 2:05:00 PM	94.26	1,257.30	39.55	601.57	8.37	10.61	28,692.55	19,580.63	-0.38
7/29/2023 2:05:00 AM	94.26	1,257.29	39.55	601.57	8.37	10.61	28,691.87	19,580.81	-0.39
7/29/2023 2:05:00 PM	94.26	1,257.21	39.56	601.56	8.38	10.60	28,686.02	19,577.23	-0.37
7/30/2023 2:05:00 AM	94.26	1,257.25	39.55	601.57	8.38	10.60	28,682.76	19,575.44	-0.39
7/30/2023 2:05:00 PM	94.26	1,256.48	39.63	601.49	8.38	10.61	28,690.12	19,579.98	-0.39
7/31/2023 2:05:00 AM	94.26	1,256.65	39.61	601.51	8.38	10.61	28,692.47	19,581.69	-0.39
7/31/2023 2:05:00 PM	94.26	1,256.72	39.61	601.51	8.38	10.62	28,697.32	19,585.21	-0.38
8/1/2023 2:05:00 AM	94.26	1,257.05	39.57	601.55	8.38	10.61	28,696.79	19,584.39	-0.40
8/1/2023 2:05:00 PM	94.26	1,256.98	39.58	601.54	8.37	10.60	28,700.09	19,585.73	-0.38
8/2/2023 2:05:00 AM	94.26	1,256.89	39.59	601.53	8.38	10.60	28,692.39	19,581.58	-0.38
8/2/2023 2:05:00 PM	94.26	1,257.21	39.56	601.56	8.37	10.60	28,693.29	19,581.01	-0.38
8/3/2023 2:05:00 AM	94.26	1,257.35	39.54	601.58	8.37	10.62	28,700.75	19,586.05	-0.40
8/3/2023 2:05:00 PM	94.26	1,257.19	39.56	601.56	8.37	10.60	28,700.22	19,585.64	-0.39
8/4/2023 2:05:00 AM	94.26	1,257.09	39.57	601.55	8.37	10.60	28,704.59	19,588.10	-0.40
8/4/2023 2:05:00 PM	94.26	1,257.22	39.56	601.56	8.37	10.60	28,702.17	19,586.55	-0.40
8/5/2023 2:05:00 AM	94.26	1,257.62	39.52	601.60	8.37	10.60	28,703.43	19,587.20	-0.40
8/5/2023 2:05:00 PM	94.26	1,257.48	39.53	601.59	8.37	10.61	28,700.26	19,586.45	-0.39
8/6/2023 2:05:00 AM	94.26	1,257.68	39.51	601.61	8.37	10.60	28,701.33	19,586.92	-0.40
8/6/2023 2:05:00 PM	94.26	1,257.36	39.54	601.58	8.38	10.59	28,701.98	19,587.78	-0.41
8/7/2023 2:05:00 AM	94.26	1,257.04	39.57	601.55	8.38	10.60	28,697.35	19,585.29	-0.41
8/8/2023 2:05:00 AM	94.26	1,251.08	40.12	601.00	8.36	11.90	27,592.09	18,820.97	-0.32
8/8/2023 2:05:00 PM	94.26	1,254.40	39.79	601.33	8.35	11.88	27,572.68	18,805.45	-0.33
8/9/2023 2:05:00 AM	94.26	1,255.58	39.67	601.45	8.35	11.87	27,575.22	18,807.93	-0.35
8/9/2023 2:05:00 PM	94.26	1,255.50	39.68	601.44	8.37	11.82	27,591.25	18,826.54	-0.36
8/10/2023 2:05:00 AM	94.26	1,255.06	39.72	601.40	8.37	11.80	27,593.50	18,828.28	-0.36
8/10/2023 2:05:00 PM	94.26	1,255.19	39.71	601.41	8.37	11.78	27,599.02	18,832.23	-0.36
8/11/2023 2:05:00 AM	94.26	1,255.64	39.66	601.46	8.37	11.77	27,605.86	18,838.70	-0.37
8/11/2023 2:05:00 PM	94.26	1,256.09	39.62	601.50	8.37	11.72	27,615.19	18,844.60	-0.37
8/12/2023 2:05:00 AM	94.26	1,256.50	39.58	601.54	8.37	11.56	27,612.84	18,843.85	-0.36
8/12/2023 2:05:00 PM	94.26	1,256.49	39.58	601.54	8.37	10.91	27,621.92	18,850.47	-0.33
8/13/2023 2:05:00 AM	94.26	1,256.87	39.54	601.58	8.37	11.36	27,628.65	18,854.20	-0.37
8/13/2023 2:05:00 PM	94.26	1,256.42	39.58	601.54	8.37	11.36	27,629.02	18,855.43	-0.37
8/14/2023 2:05:00 AM	94.26	1,256.77	39.55	601.57	8.37	11.51	27,635.88	18,859.03	-0.39
8/14/2023 2:05:00 PM	94.26	1,256.64	39.56	601.56	8.38	11.44	27,637.60	18,861.37	-0.39
8/15/2023 2:05:00 AM	94.26	1,256.72	39.55	601.57	8.37	11.50	27,644.98	18,866.01	-0.40
8/15/2023 2:05:00 PM	94.26	1,255.77	39.65	601.47	8.37	11.48	27,646.79	18,867.44	-0.40
8/16/2023 2:05:00 AM	94.26	1,256.46	39.58	601.54	8.38	11.39	27,645.33	18,866.67	-0.39
8/16/2023 2:05:00 PM	94.26	1,256.29	39.60	601.52	8.37	10.71	27,647.31	18,867.62	-0.36
8/17/2023 2:05:00 AM	94.26	1,255.75	39.65	601.47	8.38	10.69	27,648.07	18,868.70	-0.36
8/17/2023 2:05:00 PM	94.26	1,255.64	39.66	601.46	8.37	10.59	27,639.12	18,861.74	-0.35
8/18/2023 2:05:00 AM	94.26	1,255.76	39.65	601.47	8.38	10.66	27,644.08	18,865.90	-0.35
8/18/2023 2:05:00 PM	94.26	1,255.95	39.63	601.49	8.38	10.96	27,648.05	18,868.55	-0.37
8/19/2023 2:05:00 AM	94.26	1,256.82	39.54	601.58	8.37	11.01	27,649.09	18,869.18	-0.38
8/19/2023 2:05:00 PM	94.26	1,257.19	39.51	601.61	8.37	11.02	27,651.33	18,870.30	-0.38
8/20/2023 2:05:00 AM	94.26	1,256.85	39.54	601.58	8.37	10.63	27,649.26	18,869.20	-0.36
8/20/2023 2:05:00 PM	94.26	1,256.89	39.54	601.58	8.38	10.65	27,653.65	18,872.54	-0.36
8/21/2023 2:05:00 AM	94.26	1,256.71	39.56	601.56	8.37	11.76	27,652.69	18,871.32	-0.42
8/21/2023 2:05:00 PM	94.26	1,257.09	39.52	601.60	8.37	11.01	27,655.71	18,873.02	-0.38
8/22/2023 2:05:00 AM	94.26	1,256.66	39.56	601.56	8.37	10.72	27,653.37	18,871.84	-0.36
8/22/2023 2:05:00 PM	94.26	1,256.58	39.57	601.55	8.38	10.71	27,653.29	18,872.20	-0.36
8/23/2023 2:05:00 AM	94.26	1,256.55	39.57	601.55	8.37	10.75	27,656.49	18,874.09	-0.36
8/23/2023 2:05:00 PM	94.26	1,256.20	39.61	601.51	8.37	10.63	27,652.53	18,871.02	-0.36
8/24/2023 2:05:00 AM	94.26	1,256.29	39.60	601.52	8.37	10.61	27,653.93	18,872.07	-0.35
8/24/2023 2:05:00 PM	94.26	1,256.98	39.53	601.59	8.37	10.62	27,647.08	18,867.77	-0.36
8/25/2023 2:05:00 AM	94.26	1,257.18	39.51	601.61	8.37	10.60	27,652.21	18,871.31	-0.36
8/25/2023 2:05:00 PM	94.26	1,257.01	39.53	601.59	8.37	10.61	27,654.93	18,873.01	-0.36
8/26/2023 2:05:00 AM	94.26	1,256.66	39.56	601.56	8.38	11.02	27,654.60	18,873.33	-0.38
8/26/2023 2:05:00 PM	94.26	1,256.40	39.59	601.53	8.38	11.07	27,658.45	18,875.92	-0.38
8/27/2023 2:05:00 AM	94.26	1,256.62	39.56	601.56	8.38	10.98	27,655.23	18,873.70	-0.38
8/27/2023 2:05:00 PM	94.26	1,256.86	39.54	601.58	8.38	10.66	27,655.59	18,873.70	-0.36

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 2:05:00 AM	94.26	1,256.70	39.56	601.56	8.38	10.72	27,656.25	18,874.24	-0.37
8/28/2023 2:05:00 PM	94.26	1,256.79	39.55	601.57	8.37	10.65	27,656.65	18,874.00	-0.36
8/29/2023 2:05:00 AM	94.26	1,256.82	39.54	601.58	8.38	11.30	27,660.62	18,877.23	-0.40
8/29/2023 2:05:00 PM	94.26	1,256.29	39.60	601.52	8.38	11.19	27,660.42	18,877.41	-0.39
8/30/2023 2:05:00 AM	94.26	1,255.86	39.64	601.48	8.38	11.35	27,658.68	18,876.44	-0.40
8/30/2023 2:05:00 PM	94.26	1,255.38	39.69	601.43	8.38	11.20	27,656.38	18,874.83	-0.38
8/31/2023 2:05:00 AM	94.26	1,255.82	39.65	601.47	8.37	11.21	27,658.97	18,875.88	-0.38
8/31/2023 2:05:00 PM	94.26	1,255.74	39.65	601.47	8.38	11.22	27,657.92	18,875.96	-0.38
9/1/2023 2:05:00 AM	94.26	1,256.15	39.61	601.51	8.38	11.12	27,661.54	18,877.85	-0.38
9/1/2023 2:05:00 PM	94.26	1,256.00	39.63	601.49	8.38	11.19	27,661.35	18,878.67	-0.38
9/2/2023 2:05:00 AM	94.26	1,255.29	39.70	601.42	8.37	11.19	27,667.30	18,881.57	-0.38
9/2/2023 2:05:00 PM	94.26	1,255.85	39.64	601.48	8.38	11.22	27,660.61	18,878.06	-0.39
9/3/2023 2:05:00 AM	94.26	1,255.99	39.63	601.49	8.38	11.26	27,662.89	18,879.19	-0.39
9/3/2023 2:05:00 PM	94.26	1,255.76	39.65	601.47	8.38	11.30	27,664.48	18,880.46	-0.39
9/4/2023 2:05:00 AM	94.26	1,255.86	39.64	601.48	8.38	11.31	27,664.99	18,880.48	-0.40
9/4/2023 2:05:00 PM	94.26	1,256.46	39.58	601.54	8.38	11.31	27,668.96	18,883.61	-0.39
9/5/2023 2:05:00 AM	94.26	1,256.96	39.53	601.59	8.38	11.29	27,669.57	18,883.95	-0.38
9/5/2023 2:05:00 PM	94.26	1,256.30	39.60	601.52	8.38	11.29	27,668.37	18,882.72	-0.39
9/6/2023 2:05:00 AM	94.26	1,256.16	39.61	601.51	8.38	11.26	27,651.15	18,870.62	-0.39
9/6/2023 2:05:00 PM	94.26	1,256.17	39.61	601.51	8.38	11.27	27,657.67	18,876.01	-0.41
9/7/2023 2:05:00 AM	94.26	1,256.47	39.58	601.54	8.38	11.27	27,659.57	18,876.97	-0.41
9/7/2023 2:05:00 PM	94.26	1,256.42	39.58	601.54	8.38	11.27	27,660.81	18,877.61	-0.41
9/8/2023 2:05:00 AM	94.26	1,256.77	39.55	601.57	8.38	11.25	27,655.60	18,873.70	-0.41
9/8/2023 2:05:00 PM	94.26	1,257.21	39.51	601.61	8.38	11.26	27,659.86	18,876.62	-0.40
9/9/2023 2:05:00 AM	94.26	1,257.19	39.51	601.61	8.38	11.26	27,661.88	18,878.51	-0.40
9/9/2023 2:05:00 PM	94.26	1,257.11	39.52	601.60	8.38	11.25	27,662.24	18,879.07	-0.39
9/10/2023 2:05:00 AM	94.26	1,257.20	39.51	601.61	8.38	11.25	27,661.85	18,878.64	-0.40
9/10/2023 2:05:00 PM	94.26	1,256.70	39.56	601.56	8.37	11.24	27,665.14	18,879.94	-0.40
9/11/2023 2:05:00 AM	94.26	1,256.26	39.60	601.52	8.38	11.19	27,666.97	18,882.12	-0.41
9/11/2023 2:05:00 PM	94.26	1,256.37	39.59	601.53	8.38	11.12	27,665.04	18,880.95	-0.41
9/12/2023 2:05:00 AM	94.26	1,256.09	39.62	601.50	8.38	11.11	27,670.40	18,884.35	-0.41
9/12/2023 2:05:00 PM	94.26	1,255.83	39.64	601.48	8.38	11.11	27,666.31	18,881.95	-0.41
9/13/2023 2:05:00 AM	94.26	1,255.80	39.65	601.47	8.37	11.10	27,673.75	18,886.03	-0.42
9/13/2023 2:05:00 PM	94.26	1,256.06	39.62	601.50	8.38	11.07	27,660.09	18,877.73	-0.40
9/14/2023 2:05:00 AM	94.26	1,256.30	39.60	601.52	8.38	11.07	27,668.28	18,882.52	-0.41
9/14/2023 2:05:00 PM	94.26	1,256.62	39.56	601.56	8.38	11.06	27,664.07	18,880.50	-0.40
9/15/2023 2:05:00 AM	94.26	1,256.66	39.56	601.56	8.38	11.05	27,672.55	18,885.57	-0.40
9/15/2023 2:05:00 PM	94.26	1,256.10	39.62	601.50	8.38	11.05	27,672.49	18,885.48	-0.41
9/16/2023 2:05:00 AM	94.26	1,255.97	39.63	601.49	8.38	11.05	27,671.49	18,884.66	-0.42
9/16/2023 2:05:00 PM	94.26	1,256.02	39.62	601.50	8.38	11.05	27,666.04	18,881.47	-0.41
9/17/2023 2:05:00 AM	94.26	1,255.63	39.66	601.46	8.38	11.05	27,672.86	18,885.59	-0.42
9/17/2023 2:06:00 PM	94.26	1,255.54	39.67	601.45	8.38	11.05	27,675.97	18,888.82	-0.43
9/18/2023 2:06:00 AM	94.26	1,255.45	39.68	601.44	8.38	11.05	27,672.22	18,885.54	-0.43
9/18/2023 2:06:00 PM	94.26	1,255.60	39.67	601.45	8.38	11.06	27,676.80	18,888.58	-0.43
9/19/2023 2:06:00 AM	94.26	1,255.78	39.65	601.47	8.38	11.06	27,682.27	18,891.95	-0.43
9/19/2023 2:06:00 PM	94.26	1,256.02	39.62	601.50	8.38	11.05	27,676.90	18,889.04	-0.43
9/20/2023 2:06:00 AM	94.26	1,255.97	39.63	601.49	8.38	11.05	27,670.13	18,884.82	-0.43
9/20/2023 2:06:00 PM	94.26	1,256.47	39.58	601.54	8.38	11.06	27,673.57	18,886.43	-0.43
9/21/2023 2:06:00 AM	94.26	1,256.89	39.54	601.58	8.38	11.06	27,676.97	18,888.87	-0.43
9/21/2023 2:06:00 PM	94.26	1,257.00	39.53	601.59	8.38	11.07	27,680.24	18,891.24	-0.43
9/22/2023 2:06:00 AM	94.26	1,256.79	39.55	601.57	8.38	11.05	27,679.14	18,890.43	-0.44
9/22/2023 2:06:00 PM	94.26	1,256.39	39.59	601.53	8.38	11.06	27,681.89	18,892.54	-0.44
9/23/2023 2:06:00 AM	94.26	1,256.25	39.60	601.52	8.38	11.05	27,675.28	18,887.88	-0.44
9/23/2023 2:06:00 PM	94.26	1,255.99	39.63	601.49	8.38	11.05	27,674.14	18,887.57	-0.44
9/24/2023 2:06:00 AM	94.26	1,255.59	39.67	601.45	8.38	11.02	27,679.27	18,890.64	-0.44
9/24/2023 2:06:00 PM	94.26	1,255.64	39.66	601.46	8.38	11.00	27,678.59	18,889.75	-0.44
9/25/2023 2:06:00 AM	94.26	1,256.34	39.59	601.53	8.38	10.86	27,676.54	18,888.91	-0.43
9/25/2023 2:06:00 PM	94.26	1,256.21	39.61	601.51	8.38	10.84	27,674.31	18,887.04	-0.43
9/26/2023 2:06:00 AM	94.26	1,255.66	39.66	601.46	8.38	10.85	27,683.86	18,893.69	-0.43
9/26/2023 2:06:00 PM	94.26	1,255.44	39.68	601.44	8.38	10.87	27,686.40	18,894.88	-0.43
9/27/2023 2:06:00 AM	94.26	1,255.72	39.65	601.47	8.38	10.89	27,686.27	18,895.93	-0.44
9/27/2023 2:06:00 PM	94.26	1,255.80	39.65	601.47	8.38	10.92	27,685.69	18,894.40	-0.44
9/28/2023 2:06:00 AM	94.26	1,256.24	39.60	601.52	8.38	10.96	27,688.05	18,897.20	-0.44
9/28/2023 2:06:00 PM	94.26	1,255.81	39.65	601.47	8.38	10.96	27,686.68	18,895.68	-0.44
9/29/2023 2:06:00 AM	94.26	1,256.17	39.61	601.51	8.38	11.29	27,687.71	18,896.04	-0.46
9/29/2023 2:06:00 PM	94.26	1,256.21	39.61	601.51	8.38	11.18	27,690.51	18,897.70	-0.45
9/30/2023 2:06:00 AM	94.26	1,256.59	39.57	601.55	8.38	10.83	27,685.54	18,894.95	-0.42
9/30/2023 2:06:00 PM	94.26	1,256.71	39.56	601.56	8.38	10.80	27,686.98	18,895.51	-0.42
10/1/2023 2:06:00 AM	94.26	1,256.89	39.54	601.58	8.38	10.79	27,681.66	18,892.08	-0.41
10/1/2023 2:06:00 PM	94.26	1,256.56	39.57	601.55	8.37	10.79	27,662.97	18,878.05	-0.40

Table D.5 Summary of 2023 Continuous Water Quality Measurements at 1F1/08-19

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/2/2023 2:06:00 AM	94.26	1,256.08	39.62	601.50	8.38	10.82	27,677.24	18,889.35	-0.42
10/2/2023 2:06:00 PM	94.26	1,255.68	39.66	601.46	8.38	10.85	27,682.45	18,893.13	-0.44
10/3/2023 2:06:00 AM	94.26	1,256.16	39.61	601.51	8.38	10.90	27,682.07	18,892.54	-0.44
10/3/2023 2:06:00 PM	94.26	1,255.91	39.64	601.48	8.38	10.97	27,673.18	18,886.05	-0.44
10/4/2023 2:06:00 AM	94.26	1,255.67	39.66	601.46	8.38	11.01	27,680.38	18,890.97	-0.45
10/4/2023 2:06:00 PM	94.26	1,256.08	39.62	601.50	8.38	11.12	27,686.56	18,895.60	-0.46
10/5/2023 2:06:00 AM	94.26	1,256.67	39.56	601.56	8.38	11.13	27,679.19	18,891.03	-0.45
10/5/2023 2:06:00 PM	94.26	1,257.22	39.50	601.62	8.38	11.14	27,677.97	18,890.00	-0.45
10/6/2023 2:06:00 AM	94.26	1,257.38	39.49	601.63	8.38	11.12	27,677.25	18,889.14	-0.45
10/6/2023 2:06:00 PM	94.26	1,255.88	39.64	601.48	8.38	11.08	27,678.78	18,889.70	-0.45
10/7/2023 2:06:00 AM	94.26	1,256.25	39.60	601.52	8.38	11.06	27,684.65	18,893.98	-0.45
10/7/2023 2:06:00 PM	94.26	1,256.28	39.60	601.52	8.38	11.06	27,685.48	18,894.59	-0.45
10/8/2023 2:06:00 AM	94.26	1,255.95	39.63	601.49	8.38	11.06	27,690.81	18,898.37	-0.45
10/8/2023 2:06:00 PM	94.26	1,255.83	39.64	601.48	8.38	11.01	27,697.95	18,902.81	-0.45
10/9/2023 2:06:00 AM	94.26	1,255.42	39.69	601.43	8.38	11.02	27,698.33	18,903.97	-0.45
10/9/2023 2:06:00 PM	94.26	1,255.28	39.70	601.42	8.38	11.05	27,704.23	18,907.48	-0.45
10/10/2023 2:06:00 AM	94.26	1,255.21	39.71	601.41	8.38	11.01	27,708.57	18,910.95	-0.45
10/10/2023 2:06:00 PM	94.26	1,254.81	39.75	601.37	8.38	11.10	27,712.40	18,913.70	-0.44
10/11/2023 2:06:00 AM	94.26	1,255.04	39.72	601.40	8.38	11.23	27,711.38	18,912.02	-0.47
10/11/2023 2:06:00 PM	94.26	1,255.33	39.69	601.43	8.37	11.20	27,711.73	18,911.51	-0.46
10/12/2023 2:06:00 AM	94.26	1,256.32	39.60	601.52	8.38	11.20	27,714.65	18,914.65	-0.45
10/12/2023 2:06:00 PM	94.26	1,256.95	39.53	601.59	8.38	11.18	27,716.53	18,915.76	-0.45
10/13/2023 2:06:00 AM	94.26	1,257.15	39.51	601.61	8.38	11.12	27,709.20	18,910.82	-0.43
10/13/2023 2:06:00 PM	94.26	1,256.46	39.58	601.54	8.38	11.09	27,705.38	18,908.24	-0.45
10/14/2023 2:06:00 AM	94.26	1,256.35	39.59	601.53	8.38	11.08	27,708.29	18,910.27	-0.45
10/14/2023 2:06:00 PM	94.26	1,256.90	39.54	601.58	8.38	11.05	27,711.41	18,911.77	-0.44
10/15/2023 2:06:00 AM	94.26	1,256.60	39.57	601.55	8.37	11.02	27,709.23	18,909.73	-0.44
10/15/2023 2:06:00 PM	94.26	1,256.48	39.58	601.54	8.37	11.01	27,711.16	18,911.39	-0.45
10/16/2023 2:06:00 AM	94.26	1,256.50	39.58	601.54	8.37	10.97	27,712.15	18,911.73	-0.44
10/16/2023 2:06:00 PM	94.26	1,255.95	39.63	601.49	8.38	10.95	27,704.75	18,907.39	-0.43
10/17/2023 2:06:00 AM	94.26	1,255.28	39.70	601.42	8.37	10.94	27,714.08	18,913.22	-0.44
10/17/2023 2:06:00 PM	94.26	1,256.16	39.61	601.51	8.38	10.96	27,711.24	18,912.22	-0.44
10/18/2023 2:06:00 AM	94.26	1,255.99	39.63	601.49	8.38	10.99	27,704.76	18,907.40	-0.45
10/18/2023 2:06:00 PM	94.26	1,255.77	39.65	601.47	8.38	11.02	27,714.84	18,914.68	-0.45
10/19/2023 2:06:00 AM	94.26	1,256.21	39.61	601.51	8.38	11.05	27,718.31	18,917.18	-0.45
10/19/2023 2:06:00 PM	94.26	1,255.52	39.67	601.45	8.38	11.21	27,719.93	18,917.82	-0.47
10/20/2023 2:06:00 AM	94.26	1,256.02	39.62	601.50	8.38	11.12	27,719.60	18,918.21	-0.46
10/20/2023 2:06:00 PM	94.26	1,256.23	39.60	601.52	8.38	11.13	27,718.03	18,916.99	-0.46
10/21/2023 2:06:00 AM	94.26	1,256.65	39.56	601.56	8.38	11.08	27,718.58	18,917.42	-0.45
10/21/2023 2:06:00 PM	94.26	1,256.15	39.61	601.51	8.38	11.17	27,718.28	18,916.63	-0.46
10/22/2023 2:06:00 AM	94.26	1,256.73	39.55	601.57	8.38	11.22	27,719.12	18,917.02	-0.47
10/22/2023 2:06:00 PM	94.26	1,256.44	39.58	601.54	8.38	11.18	27,719.64	18,918.33	-0.46
10/23/2023 2:06:00 AM	94.26	1,256.57	39.57	601.55	8.37	11.19	27,720.54	18,917.87	-0.46
10/23/2023 2:06:00 PM	94.26	1,256.85	39.54	601.58	8.38	11.14	27,719.79	18,918.62	-0.45
10/24/2023 2:06:00 AM	94.26	1,256.74	39.55	601.57	8.38	11.14	27,720.68	18,919.15	-0.45
10/24/2023 2:06:00 PM	94.26	1,256.60	39.57	601.55	8.38	11.00	27,719.91	18,917.81	-0.44
10/25/2023 2:06:00 AM	94.26	1,256.91	39.54	601.58	8.37	11.08	27,726.45	18,921.93	-0.45
10/25/2023 2:06:00 PM	94.26	1,257.17	39.51	601.61	8.38	11.01	27,722.21	18,919.15	-0.43
10/26/2023 2:06:00 AM	94.26	1,256.96	39.53	601.59	8.38	11.15	27,719.83	18,917.98	-0.45
10/26/2023 2:06:00 PM	94.26	1,257.11	39.52	601.60	8.38	11.08	27,725.67	18,921.87	-0.45
10/27/2023 2:06:00 AM	94.26	1,257.46	39.48	601.64	8.38	11.12	27,718.21	18,916.68	-0.45
10/27/2023 2:06:00 PM	94.26	1,256.94	39.53	601.59	8.38	11.35	27,725.38	18,921.49	-0.47
10/28/2023 2:06:00 AM	94.26	1,256.70	39.56	601.56	8.37	11.21	27,719.76	18,917.31	-0.46
10/28/2023 2:06:00 PM	94.26	1,257.36	39.49	601.63	8.38	11.02	27,725.26	18,922.03	-0.45
10/29/2023 2:06:00 AM	94.26	1,257.29	39.50	601.62	8.38	11.11	27,721.57	18,919.23	-0.44
10/29/2023 2:06:00 PM	94.26	1,256.92	39.53	601.59	8.38	11.21	27,725.33	18,921.31	-0.46
10/30/2023 2:06:00 AM	94.26	1,256.84	39.54	601.58	8.37	11.18	27,729.59	18,924.11	-0.46
10/30/2023 2:06:00 PM	94.26	1,257.39	39.49	601.63	8.38	11.11	27,701.50	18,905.56	-0.44
10/31/2023 2:06:00 AM	94.26	1,256.37	39.59	601.53	8.38	11.11	27,708.22	18,910.59	-0.46
10/31/2023 10:07:00 AM	-	-	-	-	5.72	10.10	1.19	0.75	-0.01
10/31/2023 10:08:00 AM	-	-	-	-	6.79	10.19	0.56	0.37	-0.02
10/31/2023 10:09:00 AM	-	-	-	-	7.07	10.14	0.08	0.06	-0.02

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	649	649	649	649	649	490	447	313	649
[Pre-Injection] Min	91.55	208.32	4.72	625.92	5.04	8.26	1,560.84	969.67	-0.57
[Pre-Injection] Max	97.04	249.80	10.19	631.39	5.23	9.55	2,054.93	1,272.30	-0.03
[Pre-Injection] Mean	94.38	234.05	5.93	630.18	5.11	9.09	1,826.60	1,133.25	-0.40
[Pre-Injection] Median	94.44	236.22	5.56	630.55	5.09	9.16	1,865.37	1,194.71	-0.42
[Pre-Injection] Standard Deviation	0.97	10.99	0.96	0.96	0.05	0.29	155.93	111.91	0.12
[2023] Count	612	432	431	431	611	611	612	612	611
[2023] Min	92.02	233.65	5.34	629.88	5.28	9.84	1,463.49	915.30	-0.72
[2023] Max	96.40	243.40	6.23	630.77	5.35	10.23	1,522.97	950.27	-0.04
[2023] Mean	94.60	242.11	5.44	630.67	5.32	10.05	1,490.53	930.27	-0.63
[2023] Median	94.74	242.72	5.40	630.71	5.32	10.02	1,492.91	931.43	-0.65
[2023] Standard Deviation	0.78	1.64	0.15	0.15	0.01	0.10	16.67	10.48	0.08
1/1/2023 3:11:00 AM	93.88	242.43	5.42	630.69	5.31	10.00	1,482.42	924.94	-0.65
1/1/2023 3:11:00 PM	94.13	242.40	5.43	630.68	5.31	10.00	1,482.88	925.22	-0.65
1/2/2023 3:11:00 AM	94.00	242.42	5.42	630.69	5.31	10.01	1,483.29	925.48	-0.65
1/2/2023 3:11:00 PM	93.73	242.44	5.42	630.69	5.31	10.01	1,482.78	925.10	-0.65
1/3/2023 3:11:00 AM	93.44	242.38	5.43	630.68	5.31	9.98	1,476.27	921.08	-0.65
1/3/2023 3:11:00 PM	93.41	242.44	5.42	630.69	5.31	9.99	1,478.41	922.47	-0.65
1/4/2023 3:11:00 AM	93.93	242.40	5.43	630.68	5.31	9.98	1,478.57	922.60	-0.65
1/4/2023 3:11:00 PM	94.40	242.49	5.42	630.69	5.31	9.99	1,478.64	922.61	-0.65
1/5/2023 3:11:00 AM	94.54	242.47	5.42	630.69	5.31	9.99	1,478.76	922.68	-0.65
1/5/2023 3:11:00 PM	94.15	242.47	5.42	630.69	5.31	9.99	1,478.77	922.67	-0.65
1/6/2023 3:11:00 AM	93.77	242.49	5.42	630.69	5.31	9.99	1,479.28	922.98	-0.65
1/6/2023 3:11:00 PM	93.91	242.53	5.41	630.70	5.31	9.99	1,479.30	922.98	-0.65
1/7/2023 3:11:00 AM	94.18	242.55	5.41	630.70	5.31	9.99	1,479.93	923.38	-0.65
1/7/2023 3:11:00 PM	94.29	242.56	5.41	630.70	5.31	10.00	1,479.94	923.39	-0.65
1/8/2023 3:11:00 AM	93.91	242.54	5.41	630.70	5.31	10.00	1,480.11	923.50	-0.65
1/8/2023 3:11:00 PM	93.55	242.61	5.41	630.70	5.31	10.00	1,480.64	923.82	-0.65
1/9/2023 3:11:00 AM	93.56	242.59	5.41	630.70	5.31	10.00	1,480.30	923.59	-0.65
1/9/2023 3:11:00 PM	93.47	242.56	5.41	630.70	5.31	10.00	1,480.35	923.66	-0.65
1/10/2023 3:11:00 AM	93.64	242.62	5.40	630.71	5.31	10.00	1,480.76	923.89	-0.65
1/10/2023 3:11:00 PM	93.93	242.58	5.41	630.70	5.31	10.00	1,480.49	923.76	-0.65
1/11/2023 3:11:00 AM	94.38	242.60	5.41	630.70	5.31	10.00	1,481.08	924.12	-0.66
1/11/2023 3:11:00 PM	94.87	242.58	5.41	630.70	5.31	10.01	1,480.87	923.96	-0.66
1/12/2023 3:12:00 AM	94.82	242.63	5.40	630.71	5.31	10.01	1,480.90	923.97	-0.66
1/12/2023 3:12:00 PM	94.58	242.61	5.41	630.70	5.31	10.01	1,481.49	924.35	-0.66
1/13/2023 3:12:00 AM	94.18	242.63	5.40	630.71	5.31	10.01	1,481.20	924.21	-0.66
1/13/2023 3:12:00 PM	93.71	242.64	5.40	630.71	5.31	10.01	1,481.71	924.48	-0.66
1/14/2023 3:12:00 AM	93.29	242.68	5.40	630.71	5.31	10.01	1,481.59	924.41	-0.66
1/14/2023 3:12:00 PM	93.18	242.67	5.40	630.71	5.31	10.01	1,481.93	924.64	-0.66
1/15/2023 3:12:00 AM	93.22	242.68	5.40	630.71	5.31	10.01	1,481.95	924.67	-0.66
1/15/2023 3:12:00 PM	93.20	242.67	5.40	630.71	5.31	10.01	1,481.75	924.53	-0.66
1/16/2023 3:12:00 AM	93.44	242.69	5.40	630.71	5.31	10.01	1,482.10	924.72	-0.66
1/16/2023 3:12:00 PM	93.56	242.68	5.40	630.71	5.31	10.01	1,482.39	924.94	-0.65
1/17/2023 3:12:00 AM	93.73	242.67	5.40	630.71	5.31	10.01	1,482.09	924.77	-0.64
1/17/2023 3:12:00 PM	93.86	242.70	5.40	630.71	5.31	10.01	1,482.36	924.91	-0.65
1/18/2023 3:12:00 AM	93.84	242.70	5.40	630.71	5.31	10.01	1,482.34	924.90	-0.65
1/18/2023 3:12:00 PM	93.70	242.73	5.39	630.72	5.31	10.01	1,481.72	924.53	-0.65
1/19/2023 3:12:00 AM	94.00	242.70	5.40	630.71	5.31	10.01	1,481.86	924.61	-0.65
1/19/2023 3:12:00 PM	94.62	242.71	5.40	630.71	5.31	10.01	1,482.30	924.85	-0.65
1/20/2023 3:12:00 AM	94.62	242.71	5.40	630.71	5.31	10.01	1,482.27	924.84	-0.65
1/20/2023 3:12:00 PM	94.63	242.70	5.40	630.71	5.31	10.01	1,482.32	924.89	-0.65
1/21/2023 3:12:00 AM	94.50	242.74	5.39	630.72	5.31	10.01	1,482.55	925.02	-0.65
1/21/2023 3:12:00 PM	93.98	242.74	5.39	630.72	5.31	10.02	1,482.75	925.03	-0.65
1/22/2023 3:12:00 AM	93.81	242.75	5.39	630.72	5.31	10.02	1,482.47	924.93	-0.65
1/22/2023 3:12:00 PM	94.53	242.76	5.39	630.72	5.31	10.02	1,482.80	925.21	-0.66
1/23/2023 3:12:00 AM	94.53	242.74	5.39	630.72	5.31	10.02	1,482.47	924.97	-0.65
1/23/2023 3:12:00 PM	93.76	242.82	5.38	630.73	5.31	10.02	1,482.60	925.04	-0.66
1/24/2023 3:12:00 AM	94.23	242.79	5.39	630.72	5.31	10.02	1,482.96	925.28	-0.66
1/24/2023 3:12:00 PM	94.80	242.74	5.39	630.72	5.31	10.02	1,482.72	925.14	-0.66
1/25/2023 3:12:00 AM	95.13	242.82	5.38	630.73	5.31	10.02	1,482.96	925.31	-0.66
1/25/2023 3:12:00 PM	95.14	242.78	5.39	630.72	5.31	10.02	1,482.67	925.09	-0.66
1/26/2023 3:12:00 AM	93.82	242.77	5.39	630.72	5.31	10.02	1,483.29	925.47	-0.66
1/26/2023 3:12:00 PM	94.29	242.77	5.39	630.72	5.31	10.02	1,482.92	925.32	-0.66
1/27/2023 3:12:00 AM	94.39	242.78	5.39	630.72	5.31	10.02	1,482.67	925.18	-0.66
1/27/2023 3:12:00 PM	95.33	242.82	5.38	630.73	5.31	10.02	1,482.44	924.96	-0.66
1/28/2023 3:12:00 AM	96.06	242.76	5.39	630.72	5.31	10.02	1,482.80	925.18	-0.65
1/28/2023 3:12:00 PM	96.00	242.81	5.38	630.73	5.31	10.02	1,482.70	925.16	-0.65
1/29/2023 3:12:00 AM	96.29	242.79	5.39	630.72	5.31	10.02	1,482.81	925.23	-0.66

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 3:12:00 PM	95.23	242.80	5.39	630.72	5.31	10.02	1,482.96	925.30	-0.65
1/30/2023 3:12:00 AM	95.09	242.87	5.38	630.73	5.31	10.02	1,482.70	925.17	-0.65
1/30/2023 3:12:00 PM	94.65	242.91	5.38	630.73	5.31	10.02	1,482.98	925.32	-0.66
1/31/2023 3:12:00 AM	94.13	242.91	5.37	630.74	5.31	10.03	1,482.58	925.05	-0.65
1/31/2023 3:12:00 PM	94.27	242.92	5.37	630.74	5.31	10.02	1,482.73	925.13	-0.66
2/1/2023 3:12:00 AM	94.30	242.93	5.37	630.74	5.31	10.02	1,482.34	924.87	-0.66
2/1/2023 3:12:00 PM	95.42	242.88	5.38	630.73	5.31	10.02	1,482.24	924.83	-0.66
2/2/2023 3:12:00 AM	95.71	242.89	5.38	630.73	5.31	10.02	1,482.00	924.69	-0.66
2/2/2023 3:12:00 PM	94.79	242.93	5.37	630.74	5.31	10.02	1,482.07	924.72	-0.66
2/3/2023 3:12:00 AM	93.85	242.95	5.37	630.74	5.31	10.02	1,482.38	924.94	-0.66
2/3/2023 3:12:00 PM	93.36	242.98	5.37	630.74	5.31	10.02	1,481.97	924.64	-0.66
2/4/2023 3:12:00 AM	93.31	243.00	5.37	630.74	5.31	10.02	1,482.31	924.88	-0.66
2/4/2023 3:12:00 PM	93.71	242.98	5.37	630.74	5.31	10.02	1,481.85	924.59	-0.66
2/5/2023 3:12:00 AM	93.39	242.99	5.37	630.74	5.31	10.02	1,482.12	924.78	-0.66
2/5/2023 3:12:00 PM	92.57	243.02	5.36	630.75	5.31	10.02	1,481.62	924.44	-0.66
2/6/2023 3:12:00 AM	93.64	243.02	5.36	630.75	5.31	10.02	1,482.07	924.74	-0.66
2/6/2023 3:12:00 PM	93.35	243.03	5.36	630.75	5.31	10.02	1,481.97	924.68	-0.66
2/7/2023 3:12:00 AM	93.24	243.02	5.36	630.75	5.31	10.02	1,481.77	924.57	-0.66
2/7/2023 3:12:00 PM	93.85	243.02	5.36	630.75	5.31	10.02	1,481.74	924.53	-0.66
2/8/2023 3:12:00 AM	94.13	243.01	5.36	630.75	5.31	10.02	1,481.70	924.49	-0.66
2/8/2023 3:12:00 PM	95.07	243.02	5.36	630.75	5.31	10.02	1,481.74	924.54	-0.66
2/9/2023 3:12:00 AM	95.24	243.04	5.36	630.75	5.31	10.02	1,481.79	924.58	-0.66
2/9/2023 3:12:00 PM	94.58	243.02	5.36	630.75	5.31	10.02	1,481.88	924.65	-0.66
2/10/2023 3:12:00 AM	93.82	243.08	5.36	630.75	5.31	10.03	1,481.94	924.68	-0.66
2/10/2023 3:12:00 PM	93.55	243.00	5.37	630.74	5.28	10.01	1,482.04	923.83	-0.66
2/11/2023 3:12:00 AM	94.06	243.09	5.36	630.75	5.31	10.03	1,482.38	924.97	-0.66
2/11/2023 3:12:00 PM	93.75	243.13	5.35	630.76	5.31	10.03	1,482.41	924.94	-0.66
2/12/2023 3:12:00 AM	93.96	243.09	5.36	630.75	5.31	10.03	1,482.02	924.71	-0.66
2/12/2023 3:12:00 PM	93.26	243.11	5.35	630.76	5.31	10.03	1,482.06	924.75	-0.66
2/13/2023 3:12:00 AM	92.21	243.12	5.35	630.76	5.31	10.03	1,482.03	924.72	-0.66
2/13/2023 3:12:00 PM	92.35	243.11	5.35	630.76	5.31	10.02	1,481.91	924.61	-0.66
2/14/2023 3:12:00 AM	94.01	243.04	5.36	630.75	5.31	10.03	1,481.97	924.67	-0.66
2/14/2023 3:12:00 PM	94.64	243.06	5.36	630.75	5.31	10.02	1,481.63	924.51	-0.66
2/15/2023 3:12:00 AM	94.75	243.08	5.36	630.75	5.31	10.03	1,482.13	924.77	-0.66
2/15/2023 3:12:00 PM	94.79	243.10	5.36	630.75	5.31	10.03	1,481.73	924.54	-0.66
2/16/2023 3:12:00 AM	94.31	243.14	5.35	630.76	5.31	10.03	1,481.91	924.66	-0.66
2/16/2023 3:12:00 PM	93.54	243.13	5.35	630.76	5.31	10.03	1,481.78	924.58	-0.66
2/17/2023 3:12:00 AM	93.91	243.14	5.35	630.76	5.31	10.03	1,482.02	924.73	-0.66
2/17/2023 3:12:00 PM	93.91	242.32	5.45	630.66	5.29	9.92	1,476.79	920.70	-0.27
2/18/2023 3:12:00 AM	93.55	242.38	5.44	630.67	5.30	9.92	1,474.56	919.73	-0.35
2/18/2023 3:12:00 PM	94.16	242.44	5.43	630.68	5.30	9.93	1,473.79	919.28	-0.38
2/19/2023 3:12:00 AM	93.75	242.48	5.43	630.68	5.30	9.93	1,472.94	918.80	-0.39
2/19/2023 3:12:00 PM	93.16	242.55	5.42	630.69	5.31	9.93	1,471.97	918.50	-0.40
2/20/2023 3:12:00 AM	94.23	242.56	5.42	630.69	5.32	9.93	1,471.70	918.37	-0.41
2/20/2023 3:12:00 PM	94.13	242.59	5.42	630.69	5.32	9.93	1,470.75	917.76	-0.41
2/21/2023 3:12:00 AM	94.24	242.59	5.42	630.69	5.31	9.93	1,470.38	917.52	-0.42
2/21/2023 3:12:00 PM	94.98	242.69	5.41	630.70	5.32	9.92	1,469.41	916.94	-0.43
2/22/2023 3:12:00 AM	95.73	242.72	5.40	630.71	5.32	9.93	1,468.97	916.66	-0.44
2/22/2023 3:12:00 PM	95.93	242.77	5.40	630.71	5.31	9.94	1,472.98	919.07	-0.46
2/23/2023 3:12:00 AM	96.26	242.82	5.39	630.72	5.31	9.93	1,473.98	919.73	-0.47
2/23/2023 3:12:00 PM	96.34	242.83	5.39	630.72	5.31	9.93	1,473.93	919.71	-0.49
2/24/2023 3:12:00 AM	95.69	242.89	5.39	630.72	5.31	9.93	1,473.96	919.68	-0.50
2/24/2023 3:12:00 PM	94.29	242.91	5.38	630.73	5.31	9.95	1,474.42	920.01	-0.51
2/25/2023 3:12:00 AM	93.64	242.95	5.38	630.73	5.31	9.95	1,474.10	919.83	-0.51
2/25/2023 10:58:00 AM	93.60	242.95	5.38	630.73	5.32	9.94	1,473.83	919.72	-0.49
2/25/2023 10:59:00 AM	93.59	242.96	5.38	630.73	5.32	9.94	1,474.52	920.18	-0.48
2/25/2023 12:56:00 PM	93.43	242.96	5.38	630.73	5.32	9.94	1,473.76	919.65	-0.51
2/25/2023 1:04:00 PM	93.44	243.01	5.37	630.74	5.32	9.94	1,474.06	919.86	-0.50
2/25/2023 1:06:00 PM	93.42	242.99	5.38	630.73	5.31	9.94	1,474.28	919.95	-0.49
2/26/2023 1:06:00 AM	92.54	243.02	5.37	630.74	5.32	9.95	1,474.37	920.05	-0.52
2/26/2023 1:06:00 PM	92.09	243.06	5.37	630.74	5.32	9.94	1,474.20	919.94	-0.52
2/27/2023 1:06:00 AM	92.68	243.03	5.37	630.74	5.32	9.95	1,474.35	920.03	-0.53
2/27/2023 1:06:00 PM	93.19	243.06	5.37	630.74	5.32	9.95	1,474.51	920.10	-0.54
2/28/2023 1:06:00 AM	93.50	243.05	5.37	630.74	5.32	9.95	1,474.37	920.07	-0.54
2/28/2023 1:06:00 PM	93.98	243.08	5.37	630.74	5.32	9.95	1,474.57	920.18	-0.55
3/1/2023 1:06:00 AM	94.07	243.07	5.37	630.74	5.32	9.94	1,474.19	919.94	-0.55
3/1/2023 1:06:00 PM	93.49	243.13	5.36	630.75	5.32	9.95	1,474.22	919.96	-0.55
3/2/2023 1:06:00 AM	92.45	243.17	5.36	630.75	5.32	9.94	1,474.44	920.09	-0.55
3/2/2023 1:06:00 PM	92.02	243.18	5.36	630.75	5.32	9.94	1,474.53	920.15	-0.56
3/3/2023 1:06:00 AM	92.75	243.17	5.36	630.75	5.32	9.95	1,474.47	920.17	-0.56

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/3/2023 1:06:00 PM	92.96	243.14	5.36	630.75	5.32	9.94	1,474.21	919.94	-0.56
3/4/2023 1:06:00 AM	93.59	243.17	5.36	630.75	5.32	9.95	1,474.23	919.97	-0.56
3/4/2023 1:06:00 PM	94.35	243.15	5.36	630.75	5.32	9.95	1,474.22	919.95	-0.56
3/5/2023 1:06:00 AM	95.23	243.14	5.36	630.75	5.32	9.94	1,474.11	919.92	-0.56
3/5/2023 1:06:00 PM	95.77	243.16	5.36	630.75	5.32	9.94	1,474.26	919.97	-0.56
3/6/2023 1:06:00 AM	95.89	243.16	5.36	630.75	5.32	9.94	1,473.71	919.63	-0.56
3/6/2023 1:06:00 PM	95.93	243.17	5.36	630.75	5.32	9.94	1,473.70	919.67	-0.57
3/7/2023 1:06:00 AM	95.75	243.13	5.36	630.75	5.32	9.94	1,473.54	919.51	-0.57
3/7/2023 1:06:00 PM	95.76	243.18	5.36	630.75	5.32	9.94	1,473.40	919.46	-0.57
3/8/2023 1:06:00 AM	96.14	243.24	5.35	630.76	5.32	9.94	1,472.93	919.20	-0.57
3/8/2023 1:06:00 PM	96.40	243.23	5.35	630.76	5.32	9.94	1,473.15	919.27	-0.57
3/9/2023 1:06:00 AM	96.33	243.21	5.35	630.76	5.32	9.94	1,472.78	919.05	-0.57
3/9/2023 1:06:00 PM	95.64	243.23	5.35	630.76	5.32	9.94	1,472.68	918.98	-0.57
3/10/2023 1:06:00 AM	94.82	243.22	5.35	630.76	5.32	9.94	1,472.51	918.90	-0.57
3/10/2023 1:06:00 PM	94.35	243.22	5.35	630.76	5.32	9.94	1,472.29	918.73	-0.58
3/11/2023 1:06:00 AM	94.81	243.27	5.35	630.76	5.32	9.94	1,472.09	918.62	-0.58
3/11/2023 1:06:00 PM	95.23	243.26	5.35	630.76	5.31	9.94	1,471.76	918.39	-0.58
3/12/2023 1:06:00 AM	95.32	243.26	5.35	630.76	5.32	9.94	1,471.82	918.45	-0.58
3/12/2023 2:06:00 PM	95.13	243.24	5.35	630.76	5.32	9.94	1,471.68	918.35	-0.58
3/13/2023 2:06:00 AM	94.52	243.25	5.35	630.76	5.31	9.94	1,471.44	918.17	-0.58
3/13/2023 2:06:00 PM	93.54	243.27	5.35	630.76	5.31	9.93	1,471.29	918.09	-0.58
3/14/2023 2:06:00 AM	93.11	243.25	5.35	630.76	5.32	9.93	1,470.90	917.86	-0.58
3/14/2023 2:06:00 PM	93.52	243.22	5.35	630.76	5.32	9.93	1,470.68	917.74	-0.58
3/15/2023 2:06:00 AM	93.77	243.27	5.35	630.76	5.32	9.93	1,470.71	917.81	-0.58
3/15/2023 2:06:00 PM	94.39	243.23	5.35	630.76	5.32	9.93	1,470.64	917.70	-0.58
3/16/2023 2:07:00 AM	95.01	243.25	5.35	630.76	5.32	9.93	1,470.10	917.37	-0.59
3/16/2023 2:07:00 PM	95.42	243.25	5.35	630.76	5.31	9.92	1,469.99	917.27	-0.59
3/17/2023 2:07:00 AM	95.49	243.22	5.35	630.76	5.32	9.93	1,469.55	917.04	-0.59
3/17/2023 2:07:00 PM	95.33	243.29	5.35	630.76	5.32	9.92	1,469.84	917.23	-0.59
3/18/2023 2:07:00 AM	94.96	243.22	5.35	630.76	5.32	9.93	1,469.78	917.16	-0.59
3/18/2023 2:07:00 PM	94.78	243.26	5.35	630.76	5.31	9.92	1,469.37	916.88	-0.59
3/19/2023 2:07:00 AM	94.63	243.25	5.35	630.76	5.32	9.92	1,469.10	916.75	-0.59
3/19/2023 2:07:00 PM	94.49	243.27	5.35	630.76	5.31	9.92	1,469.51	916.96	-0.59
3/20/2023 2:07:00 AM	94.27	243.25	5.35	630.76	5.31	9.92	1,469.22	916.78	-0.59
3/20/2023 2:07:00 PM	94.11	243.27	5.35	630.76	5.32	9.92	1,469.01	916.68	-0.59
3/21/2023 2:07:00 AM	94.22	243.21	5.35	630.76	5.32	9.92	1,468.91	916.64	-0.59
3/21/2023 2:07:00 PM	94.42	243.27	5.35	630.76	5.32	9.92	1,468.59	916.47	-0.59
3/22/2023 2:07:00 AM	94.15	243.25	5.35	630.76	5.32	9.92	1,468.67	916.54	-0.59
3/22/2023 2:07:00 PM	93.72	243.27	5.35	630.76	5.32	9.92	1,468.26	916.27	-0.60
3/23/2023 2:07:00 AM	93.45	243.27	5.35	630.76	5.32	9.92	1,468.38	916.30	-0.60
3/23/2023 2:07:00 PM	93.58	243.32	5.34	630.77	5.32	9.92	1,468.68	916.47	-0.60
3/24/2023 2:07:00 AM	93.98	243.30	5.35	630.76	5.32	9.92	1,468.44	916.36	-0.60
3/24/2023 2:07:00 PM	94.54	243.32	5.34	630.77	5.32	9.92	1,468.34	916.27	-0.60
3/25/2023 2:07:00 AM	94.50	243.31	5.34	630.77	5.32	9.92	1,468.57	916.43	-0.60
3/25/2023 2:07:00 PM	94.47	243.23	5.35	630.76	5.32	9.92	1,468.23	916.21	-0.60
3/26/2023 2:07:00 AM	94.83	243.25	5.35	630.76	5.32	9.92	1,468.50	916.33	-0.60
3/26/2023 2:07:00 PM	95.35	243.26	5.35	630.76	5.32	9.92	1,468.63	916.49	-0.60
3/27/2023 2:07:00 AM	95.87	243.26	5.35	630.76	5.32	9.92	1,468.45	916.37	-0.60
3/27/2023 2:07:00 PM	95.82	243.26	5.35	630.76	5.32	9.92	1,468.05	916.16	-0.60
3/28/2023 2:07:00 AM	95.42	243.27	5.35	630.76	5.32	9.92	1,468.62	916.48	-0.60
3/28/2023 2:07:00 PM	95.16	243.30	5.35	630.76	5.32	9.92	1,468.44	916.37	-0.60
3/29/2023 2:07:00 AM	94.57	243.27	5.35	630.76	5.32	9.92	1,468.34	916.29	-0.60
3/29/2023 2:07:00 PM	94.22	243.32	5.34	630.77	5.32	9.92	1,468.52	916.39	-0.60
3/30/2023 2:07:00 AM	94.40	243.30	5.34	630.77	5.32	9.92	1,468.49	916.38	-0.60
3/30/2023 2:07:00 PM	94.07	243.34	5.34	630.77	5.32	9.92	1,468.39	916.32	-0.60
3/31/2023 2:07:00 AM	93.62	243.34	5.34	630.77	5.32	9.92	1,468.65	916.51	-0.60
3/31/2023 2:07:00 PM	93.49	243.28	5.35	630.76	5.32	9.92	1,468.72	916.56	-0.60
4/1/2023 2:07:00 AM	93.24	243.34	5.34	630.77	5.32	9.92	1,468.26	916.29	-0.60
4/1/2023 2:07:00 PM	93.05	243.34	5.34	630.77	5.32	9.92	1,468.55	916.43	-0.60
4/2/2023 2:07:00 AM	93.24	243.33	5.34	630.77	5.32	9.92	1,468.18	916.24	-0.60
4/2/2023 2:07:00 PM	93.72	243.33	5.34	630.77	5.32	9.92	1,468.66	916.52	-0.60
4/3/2023 2:07:00 AM	94.11	243.35	5.34	630.77	5.32	9.92	1,468.71	916.60	-0.60
4/3/2023 2:07:00 PM	94.38	243.31	5.34	630.77	5.32	9.93	1,468.53	916.52	-0.60
4/4/2023 2:07:00 AM	94.62	243.33	5.34	630.77	5.32	9.93	1,468.51	916.47	-0.61
4/4/2023 2:07:00 PM	94.87	243.32	5.34	630.77	5.32	9.92	1,467.77	915.94	-0.61
4/5/2023 2:07:00 AM	94.69	243.34	5.34	630.77	5.32	9.93	1,468.28	916.30	-0.61
4/5/2023 2:07:00 PM	94.44	243.33	5.34	630.77	5.32	9.92	1,468.29	916.30	-0.61
4/6/2023 2:07:00 AM	94.42	243.31	5.34	630.77	5.32	9.93	1,468.41	916.37	-0.61
4/6/2023 2:07:00 PM	94.48	243.38	5.34	630.77	5.32	9.93	1,468.49	916.42	-0.61
4/7/2023 2:07:00 AM	94.12	243.37	5.34	630.77	5.32	9.93	1,468.91	916.69	-0.61

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/7/2023 2:07:00 PM	93.58	243.35	5.34	630.77	5.32	9.93	1,469.06	916.80	-0.61
4/8/2023 2:07:00 AM	93.18	243.36	5.34	630.77	5.32	9.93	1,468.99	916.75	-0.61
4/8/2023 2:07:00 PM	93.42	243.40	5.34	630.77	5.32	9.94	1,468.81	916.61	-0.61
4/9/2023 2:07:00 AM	93.81	243.34	5.34	630.77	5.32	9.93	1,468.78	916.63	-0.61
4/9/2023 2:07:00 PM	93.83	243.37	5.34	630.77	5.32	9.94	1,469.00	916.76	-0.61
4/10/2023 2:07:00 AM	93.11	243.33	5.34	630.77	5.32	9.94	1,469.31	916.93	-0.61
4/10/2023 2:07:00 PM	94.13	243.36	5.34	630.77	5.32	9.94	1,469.43	917.00	-0.61
4/11/2023 2:07:00 AM	93.86	243.31	5.34	630.77	5.32	9.94	1,469.32	916.95	-0.61
4/11/2023 2:07:00 PM	93.55	243.35	5.34	630.77	5.32	9.94	1,469.53	917.08	-0.61
4/12/2023 2:07:00 AM	93.83	243.37	5.34	630.77	5.32	9.94	1,469.53	917.08	-0.61
4/12/2023 2:07:00 PM	93.89	243.34	5.34	630.77	5.32	9.94	1,469.26	916.91	-0.61
4/13/2023 2:07:00 AM	94.02	243.34	5.34	630.77	5.32	9.94	1,469.92	917.31	-0.61
4/13/2023 2:07:00 PM	93.95	243.34	5.34	630.77	5.32	9.94	1,469.98	917.37	-0.61
4/14/2023 2:07:00 AM	94.15	243.32	5.34	630.77	5.32	9.94	1,469.59	917.14	-0.61
4/14/2023 2:07:00 PM	94.27	243.34	5.34	630.77	5.32	9.95	1,469.95	917.35	-0.61
4/15/2023 2:07:00 AM	94.65	243.33	5.34	630.77	5.32	9.95	1,469.84	917.30	-0.61
4/15/2023 2:07:00 PM	94.71	243.33	5.34	630.77	5.32	9.95	1,469.85	917.26	-0.61
4/16/2023 2:07:00 AM	94.48	243.30	5.34	630.77	5.32	9.95	1,470.21	917.49	-0.61
4/16/2023 2:07:00 PM	93.98	243.29	5.35	630.76	5.32	9.95	1,470.34	917.59	-0.61
4/17/2023 2:07:00 AM	93.16	243.33	5.34	630.77	5.32	9.94	1,470.36	917.59	-0.61
4/17/2023 2:07:00 PM	92.89	243.29	5.35	630.76	5.32	9.95	1,470.04	917.37	-0.61
4/18/2023 2:07:00 AM	93.36	243.27	5.35	630.76	5.32	9.95	1,469.85	917.26	-0.61
4/18/2023 2:07:00 PM	93.72	243.25	5.35	630.76	5.32	9.95	1,470.22	917.51	-0.61
4/19/2023 2:07:00 AM	94.27	243.27	5.35	630.76	5.32	9.95	1,470.21	917.51	-0.61
4/19/2023 2:07:00 PM	94.94	243.26	5.35	630.76	5.32	9.95	1,470.19	917.47	-0.61
4/20/2023 2:07:00 AM	95.57	243.27	5.35	630.76	5.32	9.95	1,470.38	917.60	-0.61
4/20/2023 2:07:00 PM	95.79	243.22	5.35	630.76	5.32	9.95	1,470.19	917.50	-0.61
4/21/2023 2:07:00 AM	95.79	243.26	5.35	630.76	5.32	9.95	1,470.36	917.63	-0.61
4/21/2023 2:07:00 PM	96.02	243.26	5.35	630.76	5.32	9.95	1,470.35	917.59	-0.61
4/22/2023 2:07:00 AM	95.62	243.25	5.35	630.76	5.32	9.95	1,470.06	917.43	-0.61
4/22/2023 2:07:00 PM	95.04	243.25	5.35	630.76	5.32	9.95	1,470.33	917.58	-0.61
4/23/2023 2:07:00 AM	94.49	243.23	5.35	630.76	5.32	9.95	1,470.13	917.44	-0.61
4/23/2023 2:07:00 PM	93.97	243.27	5.35	630.76	5.32	9.95	1,470.60	917.75	-0.61
4/24/2023 2:07:00 AM	93.87	243.24	5.35	630.76	5.32	9.96	1,470.47	917.70	-0.61
4/24/2023 2:07:00 PM	94.19	243.27	5.35	630.76	5.32	9.96	1,470.60	917.78	-0.61
4/25/2023 2:07:00 AM	94.35	243.24	5.35	630.76	5.32	9.96	1,470.83	917.95	-0.61
4/25/2023 2:07:00 PM	94.24	243.22	5.35	630.76	5.32	9.96	1,470.93	917.95	-0.61
4/26/2023 2:07:00 AM	94.55	243.25	5.35	630.76	5.32	9.96	1,470.89	917.95	-0.61
4/26/2023 2:07:00 PM	93.93	243.23	5.35	630.76	5.32	9.96	1,470.72	917.82	-0.61
4/27/2023 2:07:00 AM	94.11	243.20	5.36	630.75	5.32	9.96	1,470.91	917.98	-0.61
4/27/2023 2:07:00 PM	94.85	243.21	5.35	630.76	5.32	9.96	1,470.76	917.91	-0.61
4/28/2023 2:07:00 AM	94.60	243.19	5.36	630.75	5.32	9.97	1,470.93	917.96	-0.61
4/28/2023 2:07:00 PM	94.88	243.20	5.36	630.75	5.32	9.97	1,471.01	918.00	-0.61
4/29/2023 2:07:00 AM	95.21	243.16	5.36	630.75	5.32	9.97	1,470.79	917.89	-0.61
4/29/2023 2:07:00 PM	95.10	243.22	5.35	630.76	5.32	9.97	1,471.15	918.08	-0.61
4/30/2023 2:07:00 AM	94.82	243.24	5.35	630.76	5.32	9.97	1,471.64	918.45	-0.61
4/30/2023 2:07:00 PM	94.42	243.21	5.35	630.76	5.32	9.97	1,471.99	918.59	-0.61
5/1/2023 2:07:00 AM	94.20	243.19	5.36	630.75	5.32	9.97	1,472.05	918.66	-0.61
5/1/2023 2:07:00 PM	93.89	243.22	5.35	630.76	5.32	9.97	1,470.96	917.98	-0.61
5/2/2023 2:07:00 AM	93.96	243.22	5.35	630.76	5.32	9.97	1,471.71	918.47	-0.61
5/2/2023 2:07:00 PM	94.40	243.24	5.35	630.76	5.32	9.97	1,470.89	917.94	-0.61
5/3/2023 2:07:00 AM	94.25	243.23	5.35	630.76	5.32	9.97	1,472.05	918.65	-0.61
5/3/2023 2:07:00 PM	93.79	243.27	5.35	630.76	5.32	9.97	1,471.03	918.00	-0.61
5/4/2023 2:07:00 AM	93.82	243.26	5.35	630.76	5.32	9.97	1,471.93	918.62	-0.61
5/4/2023 2:07:00 PM	93.99	243.23	5.35	630.76	5.32	9.98	1,471.64	918.40	-0.61
5/5/2023 2:07:00 AM	94.29	243.23	5.35	630.76	5.32	9.98	1,471.33	918.19	-0.61
5/5/2023 2:08:00 PM	94.49	243.28	5.35	630.76	5.32	9.98	1,471.56	918.33	-0.61
5/6/2023 2:08:00 AM	94.78	243.26	5.35	630.76	5.32	9.97	1,471.34	918.21	-0.61
5/6/2023 2:08:00 PM	94.67	243.28	5.35	630.76	5.32	9.97	1,470.63	917.78	-0.61
5/7/2023 2:08:00 AM	94.60	243.26	5.35	630.76	5.32	9.97	1,470.24	917.52	-0.61
5/7/2023 2:08:00 PM	94.40	243.32	5.34	630.77	5.32	9.97	1,470.28	917.53	-0.61
5/8/2023 2:08:00 AM	94.37	243.30	5.35	630.76	5.32	9.97	1,470.47	917.69	-0.61
5/8/2023 2:08:00 PM	94.19	243.32	5.34	630.77	5.32	9.97	1,470.28	917.57	-0.61
5/9/2023 2:08:00 AM	94.38	243.31	5.34	630.77	5.32	9.97	1,470.32	917.57	-0.61
5/9/2023 2:08:00 PM	94.35	243.28	5.35	630.76	5.32	9.97	1,469.89	917.30	-0.61
5/10/2023 2:08:00 AM	94.56	243.29	5.35	630.76	5.32	9.96	1,468.78	916.61	-0.61
5/10/2023 2:08:00 PM	94.58	243.34	5.34	630.77	5.32	9.96	1,467.97	916.11	-0.61
5/11/2023 2:08:00 AM	94.80	243.30	5.35	630.76	5.32	9.95	1,466.69	915.30	-0.61
5/12/2023 11:00:00 AM	95.28	-	-	-	-	-	1,463.49	925.98	-
5/12/2023 11:00:00 PM	95.28	-	-	-	5.32	9.84	1,467.31	915.62	-0.04

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/13/2023 11:00:00 AM	95.28	-	-	-	5.31	9.90	1,468.91	916.49	-0.07
5/13/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,469.96	917.16	-0.13
5/14/2023 11:00:00 AM	95.28	-	-	-	5.31	9.93	1,471.01	917.88	-0.22
5/14/2023 11:00:00 PM	95.28	-	-	-	5.32	9.93	1,471.15	918.07	-0.29
5/15/2023 11:00:00 AM	95.28	-	-	-	5.32	9.93	1,471.23	918.21	-0.43
5/15/2023 11:00:00 PM	95.28	-	-	-	5.32	9.93	1,471.12	918.14	-0.53
5/16/2023 11:00:00 AM	95.28	-	-	-	5.32	9.93	1,472.04	918.57	-0.52
5/16/2023 11:00:00 PM	95.28	-	-	-	5.31	9.93	1,472.27	918.69	-0.51
5/17/2023 11:00:00 AM	95.28	-	-	-	5.31	9.93	1,472.51	918.83	-0.52
5/17/2023 11:00:00 PM	95.28	-	-	-	5.31	9.92	1,472.72	918.96	-0.52
5/18/2023 11:00:00 AM	95.28	-	-	-	5.31	9.92	1,472.80	918.99	-0.52
5/18/2023 11:00:00 PM	95.28	-	-	-	5.31	9.92	1,475.16	920.42	-0.52
5/19/2023 11:00:00 AM	95.28	-	-	-	5.31	9.94	1,477.47	921.85	-0.54
5/19/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,478.01	922.25	-0.55
5/20/2023 11:00:00 AM	95.28	-	-	-	5.31	9.92	1,479.50	923.07	-0.55
5/20/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,482.01	924.52	-0.56
5/21/2023 11:00:00 AM	95.28	-	-	-	5.31	9.94	1,482.66	924.99	-0.56
5/21/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,483.17	925.34	-0.56
5/22/2023 11:00:00 AM	95.28	-	-	-	5.31	9.94	1,483.59	925.61	-0.57
5/22/2023 11:00:00 PM	95.28	-	-	-	5.31	9.95	1,484.05	925.89	-0.57
5/23/2023 11:00:00 AM	95.28	-	-	-	5.31	9.95	1,484.46	926.15	-0.60
5/23/2023 11:00:00 PM	95.28	-	-	-	5.31	9.95	1,484.68	926.32	-0.61
5/24/2023 11:00:00 AM	95.28	-	-	-	5.31	9.96	1,485.41	926.76	-0.62
5/24/2023 11:00:00 PM	95.28	-	-	-	5.31	9.95	1,485.91	927.04	-0.62
5/25/2023 11:00:00 AM	95.28	-	-	-	5.31	9.94	1,486.22	927.29	-0.63
5/25/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,486.79	927.66	-0.63
5/26/2023 11:00:00 AM	95.28	-	-	-	5.31	9.94	1,488.05	928.43	-0.61
5/26/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,487.98	928.36	-0.63
5/27/2023 11:00:00 AM	95.28	-	-	-	5.31	9.95	1,488.51	928.70	-0.63
5/27/2023 11:00:00 PM	95.28	-	-	-	5.31	9.94	1,489.08	929.09	-0.63
5/28/2023 11:00:00 AM	95.28	-	-	-	5.31	9.95	1,489.47	929.31	-0.63
5/28/2023 11:00:00 PM	95.28	-	-	-	5.31	9.95	1,490.20	929.81	-0.62
5/29/2023 11:00:00 AM	95.28	-	-	-	5.31	9.97	1,490.44	929.93	-0.63
5/29/2023 11:00:00 PM	95.28	-	-	-	5.31	9.96	1,490.60	930.03	-0.63
5/30/2023 11:00:00 AM	95.28	-	-	-	5.31	9.96	1,491.27	930.46	-0.63
5/30/2023 11:00:00 PM	95.28	-	-	-	5.31	9.96	1,492.39	931.15	-0.64
5/31/2023 11:00:00 AM	95.28	-	-	-	5.31	9.97	1,492.64	931.30	-0.64
5/31/2023 11:00:00 PM	95.28	-	-	-	5.31	9.97	1,492.54	931.27	-0.64
6/1/2023 11:00:00 AM	95.28	-	-	-	5.31	9.97	1,492.99	931.48	-0.64
6/1/2023 11:00:00 PM	95.28	-	-	-	5.31	9.96	1,493.01	931.55	-0.62
6/2/2023 11:00:00 AM	95.28	-	-	-	5.31	9.98	1,492.82	931.39	-0.60
6/2/2023 11:00:00 PM	95.28	-	-	-	5.31	9.98	1,494.27	932.35	-0.61
6/3/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,495.50	933.04	-0.64
6/3/2023 11:00:00 PM	95.28	-	-	-	5.31	9.98	1,494.82	932.62	-0.63
6/4/2023 11:00:00 AM	95.28	-	-	-	5.31	9.98	1,495.32	932.90	-0.61
6/4/2023 11:00:00 PM	95.28	-	-	-	5.31	9.97	1,494.78	932.56	-0.62
6/5/2023 11:00:00 AM	95.28	-	-	-	5.31	9.96	1,495.63	933.06	-0.60
6/5/2023 11:00:00 PM	95.28	-	-	-	5.31	9.99	1,494.71	932.51	-0.63
6/6/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,496.72	933.79	-0.63
6/6/2023 11:00:00 PM	95.28	-	-	-	5.31	9.99	1,497.41	934.22	-0.64
6/7/2023 11:00:00 AM	95.28	-	-	-	5.31	10.00	1,495.56	933.05	-0.64
6/7/2023 11:00:00 PM	95.28	-	-	-	5.31	9.99	1,497.12	934.05	-0.62
6/8/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,497.74	934.41	-0.64
6/8/2023 11:00:00 PM	95.28	-	-	-	5.31	9.99	1,497.75	934.41	-0.64
6/9/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,499.08	935.23	-0.64
6/9/2023 11:00:00 PM	95.28	-	-	-	5.31	9.98	1,499.25	935.34	-0.64
6/10/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,499.57	935.55	-0.64
6/10/2023 11:00:00 PM	95.28	-	-	-	5.31	9.99	1,499.70	935.65	-0.64
6/11/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,500.24	935.97	-0.64
6/11/2023 11:00:00 PM	95.28	-	-	-	5.31	10.00	1,500.48	936.11	-0.64
6/12/2023 11:00:00 AM	95.28	-	-	-	5.31	9.99	1,500.77	936.30	-0.64
6/12/2023 11:00:00 PM	95.28	-	-	-	5.31	10.00	1,500.65	936.23	-0.64
6/13/2023 11:00:00 AM	95.28	-	-	-	5.31	10.00	1,500.41	936.06	-0.64
6/13/2023 11:00:00 PM	95.28	-	-	-	5.31	10.01	1,501.08	936.51	-0.65
6/14/2023 11:00:00 AM	95.28	-	-	-	5.31	10.01	1,500.64	936.20	-0.65
6/14/2023 11:00:00 PM	95.28	-	-	-	5.31	10.01	1,501.15	936.54	-0.65
6/15/2023 11:00:00 AM	95.28	-	-	-	5.31	10.01	1,501.56	936.79	-0.66
6/15/2023 11:00:00 PM	95.28	-	-	-	5.31	10.01	1,501.76	936.91	-0.66
6/16/2023 11:00:00 AM	95.28	-	-	-	5.31	10.01	1,502.42	937.29	-0.66
6/16/2023 11:00:00 PM	95.28	-	-	-	5.31	10.02	1,502.59	937.45	-0.66

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/17/2023 11:00:00 AM	95.28	-	-	-	5.31	10.02	1,502.71	937.55	-0.66
6/17/2023 11:00:00 PM	95.28	-	-	-	5.31	10.02	1,502.94	937.67	-0.66
6/18/2023 11:00:00 AM	95.28	-	-	-	5.31	10.02	1,503.12	937.75	-0.66
6/18/2023 11:00:00 PM	95.28	-	-	-	5.31	10.02	1,503.22	937.85	-0.66
6/19/2023 11:00:00 AM	95.28	-	-	-	5.31	10.02	1,503.59	938.04	-0.66
6/19/2023 11:00:00 PM	95.28	-	-	-	5.31	10.02	1,503.59	938.11	-0.67
6/20/2023 11:00:00 AM	95.28	-	-	-	5.31	10.03	1,503.49	938.04	-0.67
6/20/2023 11:00:00 PM	95.28	-	-	-	5.31	10.03	1,503.54	938.09	-0.67
6/21/2023 11:00:00 AM	95.28	-	-	-	5.31	10.03	1,504.22	938.47	-0.68
6/21/2023 11:00:00 PM	95.28	-	-	-	5.31	10.03	1,504.37	938.56	-0.68
6/22/2023 11:00:00 AM	95.28	-	-	-	5.31	10.03	1,504.49	938.63	-0.68
6/22/2023 11:00:00 PM	95.28	-	-	-	5.31	10.03	1,504.24	938.49	-0.68
6/23/2023 11:00:00 AM	95.28	-	-	-	5.31	10.03	1,504.13	938.38	-0.68
6/23/2023 11:00:00 PM	95.28	-	-	-	5.31	10.03	1,504.44	938.57	-0.68
6/24/2023 11:00:00 AM	95.28	-	-	-	5.31	10.03	1,504.85	938.86	-0.68
6/24/2023 11:00:00 PM	95.28	-	-	-	5.31	10.03	1,504.74	938.76	-0.68
6/25/2023 11:00:00 AM	95.28	-	-	-	5.31	10.04	1,505.80	939.45	-0.68
6/25/2023 11:00:00 PM	95.28	-	-	-	5.31	10.04	1,506.93	940.17	-0.69
6/26/2023 11:00:00 AM	95.28	-	-	-	5.31	10.04	1,506.81	940.08	-0.69
6/26/2023 11:00:00 PM	95.28	-	-	-	5.31	10.04	1,505.69	939.36	-0.69
6/27/2023 11:00:00 AM	95.28	-	-	-	5.31	10.04	1,504.65	938.71	-0.69
6/27/2023 11:00:00 PM	95.28	-	-	-	5.31	10.04	1,504.78	938.78	-0.69
6/28/2023 11:00:00 AM	95.28	-	-	-	5.31	10.04	1,504.24	938.50	-0.69
6/28/2023 11:00:00 PM	95.28	-	-	-	5.31	10.04	1,504.85	938.84	-0.69
6/29/2023 11:00:00 AM	95.28	-	-	-	5.31	10.05	1,504.51	938.63	-0.69
6/29/2023 11:00:00 PM	95.28	-	-	-	5.31	10.05	1,505.02	938.94	-0.69
6/30/2023 11:00:00 AM	95.28	-	-	-	5.31	10.05	1,505.41	939.22	-0.69
6/30/2023 11:00:00 PM	95.28	-	-	-	5.31	10.05	1,505.18	939.07	-0.69
7/1/2023 11:00:00 AM	95.28	-	-	-	5.31	10.05	1,505.94	939.51	-0.69
7/1/2023 11:01:00 PM	95.28	-	-	-	5.31	10.05	1,504.94	938.90	-0.69
7/2/2023 11:01:00 AM	95.28	-	-	-	5.31	10.05	1,505.65	939.34	-0.69
7/2/2023 11:01:00 PM	95.28	-	-	-	5.31	10.06	1,505.75	939.49	-0.69
7/3/2023 11:01:00 AM	95.28	-	-	-	5.31	10.06	1,507.55	940.57	-0.69
7/3/2023 11:01:00 PM	95.28	-	-	-	5.31	10.06	1,507.65	940.65	-0.69
7/4/2023 11:01:00 AM	95.28	-	-	-	5.31	10.06	1,508.02	940.88	-0.69
7/4/2023 11:01:00 PM	95.28	-	-	-	5.31	10.06	1,509.46	941.78	-0.69
7/5/2023 11:01:00 AM	95.28	-	-	-	5.31	10.07	1,510.48	942.38	-0.69
7/5/2023 11:01:00 PM	95.28	-	-	-	5.31	10.07	1,509.32	941.67	-0.69
7/6/2023 11:01:00 AM	95.28	-	-	-	5.31	10.07	1,508.53	941.17	-0.69
7/6/2023 11:01:00 PM	95.28	-	-	-	5.31	10.07	1,509.52	941.82	-0.69
7/7/2023 11:01:00 AM	95.28	-	-	-	5.31	10.07	1,509.17	941.60	-0.69
7/7/2023 11:01:00 PM	95.28	-	-	-	5.31	10.07	1,508.83	941.35	-0.69
7/8/2023 11:01:00 AM	95.28	-	-	-	5.31	10.08	1,508.09	940.90	-0.69
7/8/2023 11:01:00 PM	95.28	-	-	-	5.31	10.08	1,508.32	941.05	-0.69
7/9/2023 11:01:00 AM	95.28	-	-	-	5.31	10.08	1,510.19	942.22	-0.69
7/9/2023 11:01:00 PM	95.28	-	-	-	5.31	10.08	1,510.53	942.39	-0.69
7/10/2023 11:01:00 AM	95.28	-	-	-	5.31	10.08	1,510.17	942.23	-0.69
7/10/2023 11:01:00 PM	95.28	-	-	-	5.31	10.08	1,512.41	943.63	-0.69
7/11/2023 11:01:00 AM	95.28	-	-	-	5.31	10.08	1,513.02	943.94	-0.69
7/11/2023 11:01:00 PM	95.28	-	-	-	5.31	10.08	1,512.44	943.60	-0.70
7/12/2023 11:01:00 AM	95.28	-	-	-	5.31	10.08	1,512.02	943.37	-0.70
7/12/2023 11:01:00 PM	95.28	-	-	-	5.31	10.09	1,511.33	942.98	-0.70
7/13/2023 11:01:00 AM	95.28	-	-	-	5.31	10.09	1,512.74	943.83	-0.70
7/13/2023 11:01:00 PM	95.28	-	-	-	5.31	10.09	1,511.71	943.17	-0.69
7/14/2023 11:01:00 AM	95.28	-	-	-	5.31	10.09	1,513.49	944.31	-0.70
7/14/2023 11:01:00 PM	95.28	-	-	-	5.31	10.09	1,513.46	944.24	-0.70
7/15/2023 11:01:00 AM	95.28	-	-	-	5.31	10.09	1,513.60	944.34	-0.70
7/15/2023 11:01:00 PM	95.28	-	-	-	5.31	10.10	1,514.28	944.79	-0.70
7/16/2023 11:01:00 AM	95.28	-	-	-	5.31	10.09	1,514.67	945.02	-0.70
7/16/2023 11:01:00 PM	95.28	-	-	-	5.31	10.10	1,513.97	944.60	-0.70
7/17/2023 11:01:00 AM	95.28	-	-	-	5.31	10.10	1,514.99	945.25	-0.70
7/17/2023 11:01:00 PM	95.28	-	-	-	5.31	10.10	1,515.52	945.54	-0.70
7/18/2023 11:01:00 AM	95.28	-	-	-	5.31	10.09	1,516.25	945.96	-0.70
7/18/2023 11:01:00 PM	95.28	-	-	-	5.31	10.10	1,516.04	945.90	-0.70
7/19/2023 11:01:00 AM	95.28	-	-	-	5.31	10.10	1,515.97	945.87	-0.70
7/19/2023 11:01:00 PM	95.28	-	-	-	5.31	10.10	1,515.37	945.48	-0.70
7/20/2023 11:01:00 AM	95.28	-	-	-	5.31	10.11	1,515.81	945.72	-0.70
7/20/2023 11:01:00 PM	95.28	-	-	-	5.31	10.11	1,516.74	946.33	-0.70
7/21/2023 11:01:00 AM	95.28	-	-	-	5.31	10.11	1,517.65	946.85	-0.70
7/21/2023 11:01:00 PM	95.28	-	-	-	5.31	10.11	1,517.76	946.97	-0.70

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/22/2023 11:01:00 AM	95.28	-	-	-	5.31	10.11	1,518.34	947.32	-0.70
7/22/2023 11:01:00 PM	95.28	-	-	-	5.31	10.11	1,518.61	947.53	-0.70
7/23/2023 11:01:00 AM	95.28	-	-	-	5.31	10.11	1,518.92	947.67	-0.70
7/23/2023 11:01:00 PM	95.28	-	-	-	5.31	10.12	1,518.66	947.49	-0.70
7/24/2023 11:01:00 AM	95.28	-	-	-	5.31	10.12	1,518.86	947.68	-0.70
7/24/2023 11:01:00 PM	95.28	-	-	-	5.31	10.12	1,518.99	947.76	-0.69
7/25/2023 11:01:00 AM	95.28	-	-	-	5.31	10.12	1,519.66	948.15	-0.70
7/25/2023 11:01:00 PM	95.28	-	-	-	5.31	10.12	1,518.81	947.66	-0.70
7/26/2023 11:01:00 AM	95.28	-	-	-	5.31	10.12	1,519.79	948.26	-0.70
7/26/2023 11:01:00 PM	95.28	-	-	-	5.31	10.12	1,520.48	948.69	-0.70
7/27/2023 11:01:00 AM	95.28	-	-	-	5.31	10.12	1,519.99	948.39	-0.70
7/27/2023 11:01:00 PM	95.28	-	-	-	5.31	10.13	1,520.50	948.68	-0.70
7/28/2023 11:01:00 AM	95.28	-	-	-	5.31	10.13	1,521.08	949.08	-0.70
7/28/2023 11:01:00 PM	95.28	-	-	-	5.31	10.13	1,521.14	949.09	-0.70
7/29/2023 11:01:00 AM	95.28	-	-	-	5.31	10.13	1,521.45	949.28	-0.70
7/29/2023 11:01:00 PM	95.28	-	-	-	5.31	10.13	1,521.64	949.38	-0.71
7/30/2023 11:01:00 AM	95.28	-	-	-	5.31	10.13	1,522.06	949.65	-0.71
7/30/2023 11:01:00 PM	95.28	-	-	-	5.31	10.13	1,521.97	949.63	-0.71
7/31/2023 11:01:00 AM	95.28	-	-	-	5.31	10.13	1,522.14	949.73	-0.71
7/31/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,521.97	949.63	-0.71
8/1/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.05	949.68	-0.71
8/1/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.20	949.76	-0.71
8/2/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.32	949.82	-0.71
8/2/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.63	950.06	-0.71
8/3/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.35	949.85	-0.71
8/3/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.65	950.08	-0.71
8/4/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.62	950.04	-0.71
8/4/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.97	950.27	-0.71
8/5/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.60	950.05	-0.71
8/5/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.76	950.14	-0.71
8/6/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.75	950.12	-0.71
8/6/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.86	950.20	-0.71
8/7/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,522.17	949.72	-0.71
8/7/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,522.77	950.17	-0.71
8/8/2023 11:01:00 AM	95.28	-	-	-	5.31	10.15	1,521.80	949.53	-0.71
8/8/2023 11:01:00 PM	95.28	-	-	-	5.31	10.15	1,521.39	949.28	-0.71
8/9/2023 11:01:00 AM	95.28	-	-	-	5.31	10.14	1,521.50	949.34	-0.72
8/9/2023 11:01:00 PM	95.28	-	-	-	5.31	10.14	1,521.07	949.10	-0.72
8/10/2023 10:37:00 PM	93.47	233.65	6.23	629.88	5.34	10.23	1,514.22	945.69	-0.29
8/11/2023 10:37:00 AM	93.99	234.15	6.18	629.93	5.34	10.22	1,512.91	944.79	-0.31
8/11/2023 10:37:00 PM	94.19	234.58	6.14	629.97	5.34	10.22	1,512.09	944.21	-0.32
8/12/2023 10:37:00 AM	94.44	234.97	6.11	630.00	5.33	10.21	1,512.17	944.14	-0.33
8/12/2023 10:37:00 PM	94.89	235.31	6.08	630.03	5.34	10.21	1,512.68	944.62	-0.35
8/13/2023 10:37:00 AM	94.94	235.61	6.05	630.06	5.34	10.21	1,512.94	944.87	-0.35
8/13/2023 10:37:00 PM	94.55	235.91	6.02	630.09	5.34	10.21	1,513.34	945.04	-0.37
8/14/2023 10:37:00 AM	94.64	236.18	6.00	630.11	5.34	10.21	1,513.62	945.34	-0.39
8/14/2023 10:37:00 PM	94.70	236.39	5.98	630.13	5.34	10.21	1,513.97	945.55	-0.41
8/15/2023 10:37:00 AM	94.34	236.62	5.95	630.16	5.34	10.21	1,514.37	945.83	-0.42
8/15/2023 10:37:00 PM	93.98	236.85	5.93	630.18	5.35	10.21	1,514.59	945.98	-0.42
8/16/2023 10:37:00 AM	94.51	237.04	5.91	630.20	5.34	10.21	1,514.59	945.94	-0.42
8/16/2023 10:37:00 PM	94.16	237.25	5.89	630.22	5.35	10.18	1,514.34	945.83	-0.34
8/17/2023 10:37:00 AM	93.48	237.46	5.88	630.23	5.34	10.21	1,514.04	945.61	-0.48
8/17/2023 10:37:00 PM	93.28	237.59	5.86	630.25	5.34	10.21	1,514.01	945.56	-0.50
8/18/2023 10:37:00 AM	93.29	237.77	5.84	630.27	5.34	10.19	1,513.60	945.32	-0.50
8/18/2023 10:37:00 PM	94.20	237.97	5.82	630.29	5.34	10.19	1,512.17	944.33	-0.50
8/19/2023 10:37:00 AM	94.93	238.11	5.81	630.30	5.34	10.22	1,510.13	943.15	-0.53
8/19/2023 10:37:00 PM	95.10	238.24	5.80	630.31	5.34	10.22	1,509.61	942.84	-0.54
8/20/2023 10:37:00 AM	95.14	238.38	5.78	630.33	5.34	10.21	1,508.61	942.17	-0.55
8/20/2023 10:37:00 PM	94.94	238.50	5.77	630.34	5.34	10.20	1,508.79	942.33	-0.58
8/21/2023 10:37:00 AM	94.96	238.61	5.76	630.35	5.35	10.19	1,508.74	942.34	-0.60
8/21/2023 10:37:00 PM	94.74	238.73	5.75	630.36	5.34	10.21	1,509.58	942.73	-0.61
8/22/2023 10:37:00 AM	94.62	238.84	5.74	630.37	5.34	10.21	1,510.14	943.05	-0.62
8/22/2023 10:37:00 PM	94.44	238.95	5.73	630.38	5.34	10.18	1,510.00	942.95	-0.62
8/23/2023 10:37:00 AM	94.22	239.05	5.72	630.39	5.34	10.20	1,510.22	943.10	-0.62
8/23/2023 10:37:00 PM	93.93	239.15	5.71	630.40	5.34	10.20	1,509.91	942.90	-0.62
8/24/2023 10:37:00 AM	94.47	239.20	5.70	630.41	5.34	10.20	1,509.89	942.89	-0.62
8/24/2023 10:37:00 PM	95.27	239.30	5.70	630.41	5.34	10.19	1,509.56	942.69	-0.62
8/25/2023 10:37:00 AM	95.38	239.38	5.69	630.42	5.34	10.21	1,508.80	942.21	-0.62
8/25/2023 10:37:00 PM	94.87	239.43	5.68	630.43	5.34	10.20	1,508.07	941.75	-0.62
8/26/2023 10:37:00 AM	94.57	239.55	5.67	630.44	5.34	10.20	1,507.83	941.58	-0.63

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/26/2023 10:37:00 PM	94.55	239.61	5.67	630.44	5.34	10.19	1,508.00	941.68	-0.63
8/27/2023 10:37:00 AM	94.89	239.67	5.66	630.45	5.34	10.19	1,507.50	941.34	-0.63
8/27/2023 10:37:00 PM	94.73	239.76	5.66	630.45	5.34	10.19	1,507.53	941.40	-0.63
8/28/2023 10:37:00 AM	94.79	239.77	5.64	630.47	5.34	10.20	1,507.03	941.04	-0.63
8/28/2023 10:37:00 PM	94.68	239.92	5.64	630.47	5.34	10.19	1,506.80	940.93	-0.63
8/29/2023 10:37:00 AM	94.49	239.91	5.63	630.48	5.34	10.19	1,506.31	940.65	-0.63
8/29/2023 10:37:00 PM	93.93	240.01	5.63	630.48	5.34	10.19	1,506.22	940.58	-0.63
8/30/2023 10:37:00 AM	93.57	240.04	5.62	630.49	5.34	10.19	1,505.74	940.29	-0.63
8/30/2023 10:37:00 PM	93.37	240.12	5.62	630.49	5.34	10.19	1,505.71	940.25	-0.63
8/31/2023 10:37:00 AM	93.47	240.17	5.61	630.50	5.34	10.19	1,505.39	940.06	-0.63
8/31/2023 10:37:00 PM	93.70	240.21	5.61	630.50	5.34	10.18	1,505.30	940.07	-0.63
9/1/2023 10:37:00 AM	94.03	240.23	5.60	630.51	5.34	10.19	1,504.99	939.84	-0.63
9/1/2023 10:37:00 PM	93.21	240.33	5.60	630.51	5.34	10.18	1,505.02	939.86	-0.64
9/2/2023 10:37:00 AM	93.53	240.35	5.59	630.52	5.34	10.18	1,504.59	939.64	-0.64
9/2/2023 10:37:00 PM	93.83	240.38	5.59	630.52	5.34	10.18	1,504.51	939.53	-0.64
9/3/2023 10:37:00 AM	93.57	240.43	5.59	630.52	5.33	10.18	1,502.58	938.11	-0.64
9/3/2023 10:37:00 PM	93.73	240.46	5.58	630.53	5.34	10.18	1,502.44	938.20	-0.65
9/4/2023 10:37:00 AM	94.30	240.51	5.58	630.53	5.34	10.17	1,501.37	937.48	-0.65
9/4/2023 10:37:00 PM	94.59	240.51	5.57	630.54	5.34	10.17	1,501.05	937.30	-0.66
9/5/2023 10:37:00 AM	94.63	240.58	5.57	630.54	5.34	10.17	1,500.51	936.97	-0.66
9/5/2023 10:37:00 PM	94.14	240.60	5.57	630.54	5.34	10.17	1,500.40	936.90	-0.66
9/6/2023 10:37:00 AM	94.20	240.61	5.56	630.55	5.34	10.16	1,500.28	936.83	-0.66
9/6/2023 10:37:00 PM	94.13	240.66	5.56	630.55	5.34	10.16	1,500.14	936.74	-0.66
9/7/2023 10:37:00 AM	94.36	240.75	5.56	630.55	5.34	10.16	1,499.78	936.50	-0.66
9/7/2023 10:37:00 PM	94.61	240.75	5.55	630.56	5.34	10.16	1,499.06	936.06	-0.66
9/8/2023 10:37:00 AM	94.98	240.78	5.55	630.56	5.34	10.16	1,499.07	936.08	-0.66
9/8/2023 10:37:00 PM	95.26	240.85	5.55	630.56	5.34	10.16	1,498.55	935.73	-0.66
9/9/2023 10:37:00 AM	95.52	240.79	5.55	630.56	5.34	10.15	1,498.21	935.55	-0.66
9/9/2023 10:37:00 PM	95.39	240.84	5.55	630.56	5.34	10.15	1,497.72	935.26	-0.66
9/10/2023 10:37:00 AM	95.27	240.85	5.54	630.57	5.34	10.15	1,497.01	934.79	-0.66
9/10/2023 10:37:00 PM	94.87	240.90	5.54	630.57	5.34	10.15	1,496.37	934.42	-0.66
9/11/2023 10:37:00 AM	94.53	240.95	5.54	630.57	5.34	10.15	1,496.01	934.15	-0.66
9/11/2023 10:37:00 PM	94.12	240.94	5.53	630.58	5.34	10.15	1,495.90	934.11	-0.66
9/12/2023 10:37:00 AM	93.99	241.01	5.53	630.58	5.34	10.15	1,496.10	934.20	-0.66
9/12/2023 10:37:00 PM	93.89	241.04	5.53	630.58	5.34	10.15	1,495.98	934.11	-0.66
9/13/2023 10:37:00 AM	94.10	241.04	5.52	630.59	5.34	10.15	1,495.90	934.12	-0.66
9/13/2023 10:37:00 PM	94.40	241.07	5.52	630.59	5.34	10.15	1,495.65	933.94	-0.66
9/14/2023 10:37:00 AM	94.82	241.07	5.52	630.59	5.34	10.15	1,495.88	934.07	-0.66
9/14/2023 10:37:00 PM	94.86	241.09	5.52	630.59	5.34	10.15	1,495.69	933.99	-0.66
9/15/2023 10:37:00 AM	94.71	241.11	5.51	630.60	5.34	10.15	1,495.59	933.94	-0.66
9/15/2023 10:37:00 PM	94.07	241.17	5.51	630.60	5.34	10.15	1,495.38	933.82	-0.67
9/16/2023 10:37:00 AM	94.33	241.15	5.51	630.60	5.34	10.15	1,495.62	933.92	-0.67
9/16/2023 10:37:00 PM	93.97	241.16	5.51	630.60	5.34	10.15	1,495.86	934.09	-0.67
9/17/2023 10:37:00 AM	93.42	241.22	5.51	630.60	5.34	10.15	1,495.66	934.01	-0.67
9/17/2023 10:37:00 PM	93.35	241.24	5.50	630.61	5.34	10.15	1,495.97	934.19	-0.67
9/18/2023 10:37:00 AM	93.49	241.29	5.50	630.61	5.34	10.15	1,495.89	934.14	-0.67
9/18/2023 10:37:00 PM	93.79	241.25	5.50	630.61	5.34	10.15	1,496.32	934.44	-0.67
9/19/2023 10:37:00 AM	94.02	241.33	5.50	630.61	5.34	10.15	1,496.08	934.25	-0.67
9/19/2023 10:37:00 PM	93.95	241.33	5.50	630.61	5.34	10.15	1,496.47	934.48	-0.67
9/20/2023 10:37:00 AM	94.58	241.31	5.50	630.61	5.34	10.15	1,496.33	934.41	-0.67
9/20/2023 10:37:00 PM	94.99	241.31	5.50	630.61	5.34	10.16	1,496.67	934.57	-0.67
9/21/2023 10:37:00 AM	95.23	241.31	5.50	630.61	5.34	10.16	1,496.57	934.55	-0.67
9/21/2023 10:37:00 PM	94.93	241.34	5.49	630.62	5.34	10.16	1,496.51	934.51	-0.67
9/22/2023 10:37:00 AM	94.77	241.36	5.49	630.62	5.34	10.16	1,496.56	934.54	-0.67
9/22/2023 10:37:00 PM	94.30	241.39	5.49	630.62	5.34	10.16	1,496.70	934.63	-0.67
9/23/2023 10:37:00 AM	94.08	241.36	5.49	630.62	5.34	10.16	1,496.87	934.74	-0.67
9/23/2023 10:37:00 PM	93.66	241.40	5.49	630.62	5.34	10.16	1,496.86	934.76	-0.67
9/24/2023 10:37:00 AM	93.93	241.42	5.49	630.62	5.34	10.16	1,496.95	934.80	-0.67
9/24/2023 10:37:00 PM	94.29	241.43	5.48	630.63	5.34	10.16	1,497.22	934.98	-0.67
9/25/2023 10:37:00 AM	94.50	241.45	5.48	630.63	5.34	10.16	1,497.15	934.97	-0.67
9/25/2023 10:37:00 PM	93.73	241.49	5.49	630.62	5.34	10.16	1,497.21	934.98	-0.67
9/26/2023 10:38:00 AM	93.70	241.43	5.48	630.63	5.34	10.16	1,497.21	935.00	-0.67
9/26/2023 10:38:00 PM	93.77	241.45	5.48	630.63	5.34	10.16	1,497.28	935.04	-0.67
9/27/2023 10:38:00 AM	93.85	241.47	5.48	630.63	5.34	10.17	1,497.37	935.10	-0.67
9/27/2023 10:38:00 PM	93.84	241.51	5.47	630.64	5.34	10.16	1,497.08	934.92	-0.67
9/28/2023 10:38:00 AM	93.90	241.58	5.47	630.64	5.34	10.16	1,497.52	935.18	-0.67
9/28/2023 10:38:00 PM	93.90	241.59	5.47	630.64	5.34	10.17	1,497.34	935.04	-0.67
9/29/2023 10:38:00 AM	94.10	241.58	5.47	630.64	5.34	10.16	1,497.11	934.92	-0.68
9/29/2023 10:38:00 PM	94.66	241.56	5.47	630.64	5.34	10.16	1,497.23	935.02	-0.68
9/30/2023 10:38:00 AM	95.14	241.58	5.47	630.64	5.34	10.16	1,497.39	935.10	-0.68

Table D.6 Summary of 2023 Continuous Water Quality Measurements at UL1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
9/30/2023 10:38:00 PM	95.23	241.60	5.47	630.64	5.34	10.17	1,496.77	934.71	-0.68
10/1/2023 10:38:00 AM	95.00	241.57	5.47	630.64	5.34	10.17	1,497.07	934.87	-0.68
10/1/2023 10:38:00 PM	94.26	241.61	5.47	630.64	5.34	10.17	1,497.31	935.04	-0.68
10/2/2023 10:38:00 AM	93.77	241.58	5.47	630.64	5.34	10.17	1,497.10	934.93	-0.68
10/2/2023 10:38:00 PM	93.82	241.64	5.46	630.65	5.34	10.17	1,497.17	934.98	-0.68
10/3/2023 10:38:00 AM	94.15	241.65	5.46	630.65	5.34	10.17	1,497.18	934.98	-0.68
10/3/2023 10:38:00 PM	93.70	241.68	5.46	630.65	5.34	10.17	1,497.49	935.16	-0.68
10/4/2023 10:38:00 AM	93.98	241.66	5.46	630.65	5.34	10.17	1,497.76	935.32	-0.68
10/4/2023 10:38:00 PM	94.89	241.69	5.46	630.65	5.34	10.18	1,497.43	935.12	-0.68
10/5/2023 10:38:00 AM	95.66	241.68	5.46	630.65	5.34	10.18	1,497.60	935.31	-0.68
10/5/2023 10:38:00 PM	95.96	241.72	5.46	630.65	5.34	10.18	1,497.87	935.44	-0.68
10/6/2023 10:38:00 AM	95.16	241.72	5.46	630.65	5.34	10.18	1,497.56	935.25	-0.68
10/6/2023 10:38:00 PM	94.42	241.72	5.46	630.65	5.34	10.17	1,498.21	935.62	-0.68
10/7/2023 10:38:00 AM	94.63	241.69	5.46	630.65	5.34	10.18	1,498.01	935.53	-0.68
10/7/2023 10:38:00 PM	94.28	241.72	5.45	630.66	5.34	10.18	1,498.24	935.62	-0.68
10/8/2023 10:38:00 AM	93.99	241.75	5.45	630.66	5.34	10.18	1,498.48	935.78	-0.68
10/8/2023 10:38:00 PM	93.66	241.75	5.45	630.66	5.34	10.18	1,498.91	936.06	-0.68
10/9/2023 10:38:00 AM	93.36	241.77	5.45	630.66	5.34	10.18	1,498.65	935.91	-0.69
10/9/2023 10:38:00 PM	93.00	241.78	5.45	630.66	5.34	10.18	1,498.93	936.08	-0.69
10/10/2023 10:38:00 AM	92.65	241.81	5.45	630.66	5.34	10.18	1,499.10	936.18	-0.69
10/10/2023 10:38:00 PM	92.63	241.81	5.45	630.66	5.34	10.18	1,499.30	936.32	-0.69
10/11/2023 10:38:00 AM	93.08	241.82	5.45	630.66	5.34	10.18	1,499.07	936.21	-0.69
10/11/2023 10:38:00 PM	93.91	241.81	5.44	630.67	5.34	10.19	1,499.04	936.16	-0.69
10/12/2023 10:38:00 AM	94.93	241.86	5.45	630.66	5.34	10.19	1,499.12	936.26	-0.69
10/12/2023 10:38:00 PM	95.32	241.82	5.44	630.67	5.34	10.19	1,499.28	936.34	-0.69
10/13/2023 10:38:00 AM	95.28	241.85	5.45	630.66	5.34	10.19	1,499.58	936.51	-0.69
10/13/2023 10:38:00 PM	94.82	241.83	5.44	630.67	5.34	10.19	1,499.68	936.59	-0.69
10/14/2023 10:38:00 AM	94.79	241.86	5.44	630.67	5.34	10.19	1,499.73	936.59	-0.69
10/14/2023 10:38:00 PM	94.84	241.85	5.45	630.66	5.34	10.19	1,499.98	936.71	-0.70
10/15/2023 10:38:00 AM	94.74	241.82	5.44	630.67	5.34	10.19	1,499.90	936.74	-0.70
10/15/2023 10:38:00 PM	94.84	241.88	5.45	630.66	5.34	10.20	1,499.85	936.65	-0.70
10/16/2023 10:38:00 AM	94.65	241.84	5.44	630.67	5.34	10.20	1,500.28	936.94	-0.70
10/16/2023 10:38:00 PM	93.52	241.90	5.44	630.67	5.34	10.20	1,500.00	936.78	-0.70
10/17/2023 10:38:00 AM	93.65	241.89	5.44	630.67	5.34	10.20	1,500.36	936.97	-0.70
10/17/2023 10:38:00 PM	94.13	241.89	5.44	630.67	5.34	10.20	1,500.05	936.76	-0.70
10/18/2023 10:38:00 AM	93.59	241.90	5.44	630.67	5.34	10.20	1,500.16	936.85	-0.70
10/18/2023 10:38:00 PM	93.66	241.91	5.43	630.68	5.34	10.20	1,500.06	936.80	-0.70
10/19/2023 10:38:00 AM	93.79	241.94	5.43	630.68	5.34	10.20	1,499.93	936.72	-0.70
10/19/2023 10:38:00 PM	93.64	241.95	5.44	630.67	5.34	10.20	1,499.85	936.67	-0.70
10/20/2023 10:38:00 AM	94.26	241.91	5.44	630.67	5.34	10.20	1,500.13	936.84	-0.70
10/20/2023 10:38:00 PM	94.76	241.94	5.44	630.67	5.34	10.20	1,500.24	936.91	-0.70
10/21/2023 10:38:00 AM	94.48	241.92	5.43	630.68	5.34	10.20	1,500.06	936.81	-0.70
10/21/2023 10:38:00 PM	94.41	241.97	5.43	630.68	5.34	10.20	1,499.87	936.68	-0.70
10/22/2023 10:38:00 AM	94.51	241.97	5.43	630.68	5.34	10.20	1,499.95	936.74	-0.70
10/22/2023 10:38:00 PM	94.74	241.96	5.43	630.68	5.34	10.20	1,500.23	936.96	-0.70
10/23/2023 10:38:00 AM	95.06	242.00	5.43	630.68	5.34	10.21	1,500.32	936.94	-0.70
10/23/2023 10:38:00 PM	95.16	241.95	5.43	630.68	5.34	10.21	1,500.89	937.38	-0.70
10/24/2023 10:38:00 AM	95.33	241.97	5.43	630.68	5.34	10.21	1,500.67	937.23	-0.70
10/24/2023 10:38:00 PM	95.29	241.97	5.43	630.68	5.34	10.21	1,500.95	937.38	-0.71
10/25/2023 10:38:00 AM	95.33	241.99	5.43	630.68	5.34	10.21	1,500.76	937.30	-0.70
10/25/2023 10:38:00 PM	95.28	242.02	5.43	630.68	5.34	10.21	1,501.07	937.54	-0.71
10/26/2023 10:38:00 AM	95.43	242.03	5.42	630.69	5.34	10.21	1,501.21	937.60	-0.71
10/26/2023 10:38:00 PM	95.53	242.04	5.42	630.69	5.35	10.21	1,501.69	937.94	-0.71
10/27/2023 10:38:00 AM	95.30	242.04	5.42	630.69	5.34	10.21	1,501.65	937.88	-0.71
10/27/2023 10:38:00 PM	95.28	242.04	5.42	630.69	5.34	10.21	1,501.67	937.90	-0.71
10/28/2023 10:38:00 AM	95.21	242.05	5.42	630.69	5.34	10.21	1,501.34	937.70	-0.71
10/28/2023 10:38:00 PM	95.76	242.07	5.42	630.69	5.34	10.21	1,501.60	937.85	-0.71
10/29/2023 10:38:00 AM	95.64	242.09	5.43	630.68	5.34	10.21	1,501.82	937.99	-0.71
10/29/2023 10:38:00 PM	95.05	242.03	5.42	630.69	5.34	10.21	1,501.66	937.89	-0.71
10/30/2023 10:38:00 AM	95.63	242.10	5.42	630.69	5.35	10.22	1,501.93	938.08	-0.71
10/30/2023 10:38:00 PM	94.98	242.13	5.42	630.69	5.34	10.22	1,502.17	938.18	-0.71
10/31/2023 10:38:00 AM	94.84	242.12	5.42	630.69	5.34	10.22	1,501.90	938.02	-0.71
10/31/2023 10:38:00 PM	94.93	242.13	5.41	630.70	5.34	10.22	1,502.35	938.31	-0.71
11/1/2023 9:38:00 AM	94.76	242.15	5.42	630.69	5.34	10.21	1,502.36	938.30	-0.71
11/1/2023 9:38:00 PM	94.08	242.12	-	-	5.34	10.21	1,502.04	938.07	-0.71

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	477	477	477	477	552	544	552	267	552
[Pre-Injection] Min	92.60	336.28	37.52	598.01	6.95	6.87	11,064.08	7,699.92	-0.73
[Pre-Injection] Max	98.02	409.90	38.28	598.77	7.19	9.48	13,221.86	8,668.61	0.15
[Pre-Injection] Mean	95.39	383.87	37.88	598.41	7.07	8.31	12,121.90	8,023.59	-0.29
[Pre-Injection] Median	95.40	385.84	37.92	598.37	7.07	8.57	12,088.87	8,143.55	-0.42
[Pre-Injection] Standard Deviation	0.82	21.67	0.15	0.15	0.04	0.63	302.47	224.22	0.29
[2023] Count	609	609	609	609	609	609	609	609	609
[2023] Min	92.76	861.11	37.83	597.98	7.20	8.11	10,067.93	6,646.84	-0.60
[2023] Max	97.22	866.89	38.31	598.46	7.29	8.29	12,494.09	8,252.19	-0.24
[2023] Mean	95.19	864.68	38.09	598.20	7.24	8.19	12,009.93	7,934.85	-0.53
[2023] Median	95.19	864.96	38.09	598.20	7.24	8.19	12,121.74	8,009.75	-0.55
[2023] Standard Deviation	0.74	1.30	0.07	0.07	0.01	0.04	526.98	348.53	0.08
1/1/2023 12:40:00 AM	94.51	861.95	38.22	598.07	7.22	8.15	12,424.37	8,205.29	-0.53
1/1/2023 12:40:00 PM	94.88	862.08	38.21	598.08	7.23	8.15	12,424.99	8,206.79	-0.53
1/2/2023 12:40:00 AM	94.78	861.81	38.23	598.06	7.22	8.14	12,421.19	8,203.17	-0.53
1/2/2023 12:40:00 PM	94.53	862.54	38.16	598.13	7.22	8.12	12,426.31	8,206.14	-0.53
1/3/2023 12:40:00 AM	94.27	862.30	38.18	598.11	7.22	8.14	12,429.35	8,208.42	-0.53
1/3/2023 12:40:00 PM	94.10	862.76	38.14	598.15	7.22	8.16	12,429.11	8,208.07	-0.53
1/4/2023 12:40:00 AM	94.54	862.34	38.18	598.11	7.23	8.16	12,433.42	8,212.37	-0.53
1/4/2023 12:40:00 PM	95.06	861.89	38.23	598.06	7.23	8.15	12,429.77	8,209.99	-0.53
1/5/2023 12:40:00 AM	95.31	861.89	38.23	598.06	7.23	8.15	12,428.19	8,208.78	-0.53
1/5/2023 12:40:00 PM	95.02	862.15	38.20	598.09	7.22	8.13	12,427.03	8,207.01	-0.53
1/6/2023 12:40:00 AM	94.54	862.58	38.16	598.13	7.22	8.14	12,436.00	8,213.04	-0.53
1/6/2023 12:40:00 PM	94.62	862.04	38.21	598.08	7.22	8.14	12,438.55	8,214.80	-0.53
1/7/2023 12:40:00 AM	94.88	862.24	38.19	598.10	7.22	8.13	12,434.92	8,212.94	-0.53
1/7/2023 12:40:00 PM	95.01	861.99	38.22	598.07	7.22	8.14	12,437.05	8,213.63	-0.53
1/8/2023 12:40:00 AM	94.78	862.12	38.20	598.09	7.22	8.16	12,434.64	8,212.25	-0.53
1/8/2023 12:40:00 PM	94.35	862.80	38.13	598.16	7.22	8.14	12,440.99	8,216.49	-0.53
1/9/2023 12:40:00 AM	94.27	862.59	38.16	598.13	7.22	8.15	12,444.51	8,218.44	-0.53
1/9/2023 12:40:00 PM	94.29	862.29	38.19	598.10	7.22	8.15	12,446.74	8,219.84	-0.53
1/10/2023 12:40:00 AM	94.29	862.03	38.21	598.08	7.22	8.15	12,448.24	8,221.30	-0.53
1/10/2023 12:40:00 PM	94.60	862.73	38.14	598.15	7.22	8.15	12,450.35	8,222.96	-0.53
1/11/2023 12:40:00 AM	95.07	862.24	38.19	598.10	7.22	8.15	12,449.47	8,222.18	-0.53
1/11/2023 12:40:00 PM	95.58	861.82	38.23	598.06	7.22	8.15	12,444.79	8,218.37	-0.53
1/12/2023 12:40:00 AM	95.66	862.18	38.20	598.09	7.22	8.15	12,446.55	8,220.36	-0.53
1/12/2023 12:40:00 PM	95.42	862.20	38.20	598.09	7.22	8.15	12,448.22	8,220.89	-0.53
1/13/2023 12:40:00 AM	94.96	862.79	38.14	598.15	7.22	8.15	12,454.78	8,224.88	-0.53
1/13/2023 12:40:00 PM	94.64	862.89	38.12	598.17	7.22	8.15	12,454.02	8,224.29	-0.53
1/14/2023 12:40:00 AM	94.07	862.98	38.12	598.17	7.22	8.15	12,462.29	8,230.52	-0.53
1/14/2023 12:40:00 PM	93.92	862.98	38.12	598.17	7.23	8.15	12,462.20	8,231.37	-0.53
1/15/2023 12:40:00 AM	93.97	862.94	38.12	598.17	7.22	8.15	12,468.05	8,234.33	-0.53
1/15/2023 12:40:00 PM	93.96	863.33	38.08	598.21	7.22	8.14	12,464.53	8,231.18	-0.53
1/16/2023 12:40:00 AM	94.14	863.39	38.07	598.22	7.22	8.15	12,464.10	8,230.84	-0.53
1/16/2023 12:40:00 PM	94.28	862.60	38.15	598.14	7.22	8.15	12,461.72	8,229.13	-0.53
1/17/2023 12:40:00 AM	94.44	862.78	38.14	598.15	7.22	8.14	12,464.42	8,232.34	-0.53
1/17/2023 12:40:00 PM	94.56	862.19	38.20	598.09	7.23	8.16	12,466.36	8,234.11	-0.53
1/18/2023 12:40:00 AM	94.59	862.53	38.16	598.13	7.22	8.16	12,462.10	8,229.77	-0.53
1/18/2023 12:40:00 PM	94.51	862.27	38.19	598.10	7.22	8.16	12,464.99	8,232.05	-0.53
1/19/2023 12:40:00 AM	94.59	862.29	38.19	598.10	7.23	8.16	12,466.84	8,235.23	-0.53
1/19/2023 12:40:00 PM	95.28	862.10	38.20	598.09	7.23	8.16	12,461.28	8,231.67	-0.53
1/20/2023 12:40:00 AM	95.39	862.14	38.20	598.09	7.22	8.16	12,459.66	8,228.20	-0.53
1/20/2023 12:41:00 PM	95.38	862.01	38.21	598.08	7.22	8.16	12,460.42	8,229.09	-0.53
1/21/2023 12:41:00 AM	95.26	861.90	38.22	598.07	7.22	8.16	12,460.76	8,229.38	-0.53
1/21/2023 12:41:00 PM	94.88	862.76	38.14	598.15	7.20	8.15	12,471.20	8,231.08	-0.53
1/22/2023 12:41:00 AM	94.44	862.89	38.12	598.17	7.22	8.16	12,463.54	8,231.47	-0.53
1/22/2023 12:41:00 PM	95.11	862.24	38.19	598.10	7.23	8.16	12,471.16	8,237.54	-0.53
1/23/2023 12:41:00 AM	95.56	862.26	38.19	598.10	7.22	8.16	12,458.41	8,227.86	-0.53
1/23/2023 12:41:00 PM	94.45	862.82	38.13	598.16	7.22	8.16	12,471.00	8,236.05	-0.53
1/24/2023 12:41:00 AM	94.93	862.36	38.18	598.11	7.22	8.16	12,466.49	8,233.63	-0.53
1/24/2023 12:41:00 PM	95.43	862.15	38.20	598.09	7.23	8.16	12,467.33	8,235.48	-0.53
1/25/2023 12:41:00 AM	95.78	862.05	38.21	598.08	7.22	8.16	12,464.50	8,231.38	-0.53
1/25/2023 12:41:00 PM	95.94	862.16	38.20	598.09	7.22	8.16	12,468.13	8,234.20	-0.53
1/26/2023 12:41:00 AM	94.66	862.88	38.13	598.16	7.22	8.15	12,468.46	8,233.75	-0.53
1/26/2023 12:41:00 PM	94.88	862.59	38.15	598.14	7.22	8.16	12,475.76	8,239.85	-0.53
1/27/2023 12:41:00 AM	94.93	862.67	38.15	598.14	7.22	8.16	12,475.91	8,240.04	-0.53
1/27/2023 12:41:00 PM	95.91	861.87	38.23	598.06	7.23	8.16	12,470.10	8,238.52	-0.53
1/28/2023 12:41:00 AM	96.73	861.32	38.28	598.01	7.23	8.16	12,450.85	8,223.93	-0.53
1/28/2023 12:41:00 PM	96.96	861.11	38.31	597.98	7.22	8.17	12,452.39	8,223.21	-0.53
1/29/2023 12:41:00 AM	96.95	861.97	38.22	598.07	7.23	8.16	12,462.40	8,232.47	-0.53

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 12:41:00 PM	96.39	861.73	38.24	598.05	7.22	8.16	12,460.85	8,228.55	-0.53
1/30/2023 12:41:00 AM	95.73	862.21	38.19	598.10	7.22	8.17	12,470.65	8,236.52	-0.53
1/30/2023 12:41:00 PM	95.64	862.33	38.18	598.11	7.22	8.16	12,465.54	8,231.33	-0.53
1/31/2023 12:41:00 AM	94.88	862.66	38.15	598.14	7.22	8.17	12,472.73	8,237.19	-0.53
1/31/2023 12:41:00 PM	95.09	862.25	38.19	598.10	7.24	8.15	12,471.56	8,239.73	-0.53
2/1/2023 12:41:00 AM	94.96	862.51	38.16	598.13	7.23	8.15	12,471.50	8,238.13	-0.53
2/1/2023 12:41:00 PM	95.94	861.80	38.24	598.05	7.24	8.14	12,464.15	8,235.97	-0.53
2/2/2023 12:41:00 AM	96.55	861.79	38.24	598.05	7.22	8.16	12,455.90	8,226.51	-0.53
2/2/2023 12:41:00 PM	95.76	862.34	38.18	598.11	7.22	8.17	12,461.69	8,230.08	-0.53
2/3/2023 12:41:00 AM	94.76	862.40	38.17	598.12	7.22	8.16	12,470.33	8,235.25	-0.53
2/3/2023 12:41:00 PM	94.22	863.11	38.10	598.19	7.22	8.16	12,471.27	8,236.32	-0.53
2/4/2023 12:41:00 AM	94.07	862.80	38.13	598.16	7.22	8.15	12,477.46	8,240.93	-0.53
2/4/2023 12:41:00 PM	94.39	862.47	38.17	598.12	7.23	8.15	12,477.39	8,242.36	-0.53
2/5/2023 12:41:00 AM	94.26	862.50	38.16	598.13	7.22	8.17	12,479.44	8,242.03	-0.53
2/5/2023 12:41:00 PM	93.45	863.19	38.09	598.20	7.22	8.17	12,478.86	8,241.63	-0.53
2/6/2023 12:41:00 AM	93.99	862.70	38.14	598.15	7.24	8.15	12,482.24	8,246.89	-0.53
2/6/2023 12:41:00 PM	94.30	862.93	38.12	598.17	7.22	8.17	12,474.27	8,238.51	-0.53
2/7/2023 12:41:00 AM	93.94	863.16	38.10	598.19	7.22	8.16	12,480.52	8,242.71	-0.53
2/7/2023 12:41:00 PM	94.64	863.04	38.11	598.18	7.23	8.17	12,481.86	8,244.60	-0.53
2/8/2023 12:41:00 AM	94.61	862.43	38.17	598.12	7.22	8.16	12,480.93	8,242.94	-0.53
2/8/2023 12:41:00 PM	95.73	861.75	38.24	598.05	7.24	8.16	12,473.36	8,241.59	-0.53
2/9/2023 12:41:00 AM	96.02	861.84	38.23	598.06	7.22	8.17	12,472.83	8,237.59	-0.53
2/9/2023 12:41:00 PM	95.51	862.23	38.19	598.10	7.22	8.17	12,478.17	8,241.54	-0.53
2/10/2023 12:41:00 AM	94.77	862.67	38.15	598.14	7.22	8.17	12,478.03	8,240.84	-0.53
2/10/2023 12:41:00 PM	94.23	862.72	38.14	598.15	7.22	8.17	12,482.53	8,244.40	-0.53
2/11/2023 12:41:00 AM	94.73	862.45	38.17	598.12	7.23	8.17	12,482.90	8,244.85	-0.53
2/11/2023 12:41:00 PM	94.65	862.70	38.14	598.15	7.22	8.17	12,482.35	8,243.77	-0.53
2/12/2023 12:41:00 AM	94.74	862.52	38.16	598.13	7.22	8.17	12,489.22	8,248.93	-0.53
2/12/2023 12:41:00 PM	94.21	863.11	38.10	598.19	7.22	8.17	12,489.39	8,248.33	-0.53
2/13/2023 12:41:00 AM	92.94	863.63	38.05	598.24	7.22	8.17	12,493.91	8,251.28	-0.53
2/13/2023 12:41:00 PM	92.81	863.64	38.05	598.24	7.22	8.16	12,494.09	8,252.19	-0.53
2/14/2023 12:41:00 AM	94.52	862.11	38.20	598.09	7.24	8.16	12,486.29	8,250.24	-0.53
2/14/2023 12:41:00 PM	95.42	862.32	38.18	598.11	7.23	8.17	12,478.63	8,242.29	-0.53
2/15/2023 12:41:00 AM	95.54	862.35	38.18	598.11	7.23	8.17	12,485.18	8,246.37	-0.53
2/15/2023 12:41:00 PM	95.56	862.06	38.21	598.08	7.23	8.16	12,485.47	8,246.83	-0.53
2/16/2023 12:41:00 AM	95.30	862.35	38.18	598.11	7.23	8.17	12,481.16	8,244.27	-0.53
2/16/2023 12:41:00 PM	94.41	863.25	38.09	598.20	7.23	8.17	12,487.29	8,247.91	-0.53
2/17/2023 12:41:00 AM	94.51	862.65	38.15	598.14	7.23	8.16	12,490.43	8,249.92	-0.53
2/17/2023 12:41:00 PM	94.75	864.31	37.98	598.31	7.21	8.11	12,170.28	8,034.32	-0.24
2/18/2023 12:41:00 AM	94.34	864.47	37.97	598.32	7.22	8.12	12,185.90	8,048.42	-0.27
2/18/2023 12:41:00 PM	94.77	864.58	37.95	598.34	7.23	8.12	12,223.35	8,073.75	-0.28
2/19/2023 12:41:00 AM	94.77	864.11	38.00	598.29	7.23	8.12	12,233.54	8,080.15	-0.28
2/19/2023 12:41:00 PM	93.83	864.78	37.93	598.36	7.23	8.12	12,243.07	8,086.73	-0.29
2/20/2023 12:41:00 AM	94.75	864.38	37.97	598.32	7.23	8.12	12,247.06	8,091.27	-0.29
2/20/2023 12:41:00 PM	95.16	863.91	38.02	598.27	7.23	8.13	12,235.34	8,081.78	-0.30
2/21/2023 12:41:00 AM	94.76	864.50	37.96	598.33	7.23	8.12	12,235.15	8,081.65	-0.30
2/21/2023 12:41:00 PM	95.69	863.81	38.03	598.26	7.25	8.13	12,230.61	8,083.72	-0.31
2/22/2023 12:41:00 AM	96.40	863.35	38.08	598.21	7.24	8.12	12,233.15	8,083.29	-0.30
2/22/2023 12:41:00 PM	96.79	863.14	38.10	598.19	7.22	8.13	12,212.55	8,065.28	-0.31
2/23/2023 12:41:00 AM	96.98	863.19	38.09	598.20	7.23	8.13	12,217.54	8,070.28	-0.31
2/23/2023 12:41:00 PM	97.22	862.99	38.11	598.18	7.24	8.13	12,212.10	8,069.02	-0.32
2/24/2023 12:41:00 AM	96.78	863.81	38.03	598.26	7.23	8.13	12,210.31	8,065.03	-0.34
2/24/2023 12:41:00 PM	95.40	864.41	37.97	598.32	7.22	8.12	12,222.24	8,072.57	-0.37
2/25/2023 12:41:00 AM	94.42	864.96	37.92	598.37	7.23	8.13	12,229.19	8,077.83	-0.45
2/25/2023 12:41:00 PM	94.23	864.86	37.92	598.37	7.23	8.12	12,236.87	8,082.87	-0.47
2/26/2023 12:41:00 AM	93.32	865.33	37.88	598.41	7.23	8.13	12,241.39	8,086.05	-0.52
2/26/2023 12:41:00 PM	92.87	865.83	37.83	598.46	7.23	8.13	12,254.22	8,094.75	-0.53
2/27/2023 12:41:00 AM	93.37	864.94	37.92	598.37	7.24	8.12	12,254.22	8,096.26	-0.53
2/27/2023 12:41:00 PM	93.93	864.79	37.93	598.36	7.23	8.17	12,242.31	8,086.76	-0.54
2/28/2023 12:41:00 AM	94.20	864.31	37.98	598.31	7.24	8.15	12,243.83	8,089.73	-0.54
2/28/2023 12:41:00 PM	94.72	864.07	38.01	598.28	7.23	8.14	12,233.66	8,081.85	-0.54
3/1/2023 12:41:00 AM	94.89	864.21	37.99	598.30	7.23	8.13	12,213.07	8,068.03	-0.54
3/1/2023 12:41:00 PM	94.29	864.67	37.94	598.35	7.22	8.15	12,217.38	8,069.19	-0.54
3/2/2023 12:41:00 AM	93.22	865.63	37.85	598.44	7.23	8.15	12,224.27	8,074.54	-0.54
3/2/2023 12:41:00 PM	92.76	865.34	37.88	598.41	7.23	8.15	12,222.96	8,073.22	-0.54
3/3/2023 12:41:00 AM	93.48	864.72	37.94	598.35	7.24	8.14	12,228.16	8,079.34	-0.54
3/3/2023 12:41:00 PM	93.70	864.58	37.95	598.34	7.25	8.16	12,071.69	7,978.84	-0.54
3/4/2023 12:41:00 AM	94.29	864.19	37.99	598.30	7.23	8.16	12,109.95	8,000.62	-0.54
3/4/2023 12:41:00 PM	95.10	863.85	38.03	598.26	7.27	8.16	12,057.95	7,975.55	-0.54
3/5/2023 12:41:00 AM	95.96	863.20	38.09	598.20	7.24	8.15	12,007.93	7,933.81	-0.54

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/5/2023 12:41:00 PM	96.55	863.35	38.08	598.21	7.27	8.17	11,984.02	7,925.20	-0.54
3/6/2023 12:41:00 AM	96.66	863.62	38.05	598.24	7.22	8.16	12,000.17	7,925.23	-0.54
3/6/2023 12:41:00 PM	96.72	863.36	38.08	598.21	7.22	8.16	12,025.58	7,942.74	-0.54
3/7/2023 12:41:00 AM	96.55	863.64	38.05	598.24	7.22	8.16	12,043.19	7,954.06	-0.54
3/7/2023 12:41:00 PM	96.54	863.38	38.08	598.21	7.22	8.16	12,057.85	7,963.96	-0.54
3/8/2023 12:41:00 AM	96.92	863.43	38.07	598.22	7.23	8.16	12,063.71	7,968.71	-0.54
3/8/2023 12:41:00 PM	97.19	863.03	38.11	598.18	7.23	8.15	12,026.31	7,943.85	-0.54
3/9/2023 12:41:00 AM	97.15	863.06	38.11	598.18	7.22	8.15	12,057.76	7,963.64	-0.54
3/9/2023 12:41:00 PM	96.48	863.65	38.05	598.24	7.22	8.15	12,075.31	7,975.20	-0.54
3/10/2023 12:41:00 AM	95.60	864.21	37.99	598.30	7.22	8.15	12,091.50	7,986.03	-0.54
3/10/2023 12:41:00 PM	95.12	864.69	37.94	598.35	7.23	8.14	12,101.78	7,993.57	-0.54
3/11/2023 12:41:00 AM	95.55	863.69	38.04	598.25	7.23	8.15	12,102.84	7,994.94	-0.54
3/11/2023 12:41:00 PM	96.00	863.58	38.05	598.24	7.24	8.14	12,101.17	7,996.35	-0.54
3/12/2023 12:41:00 AM	96.11	863.97	38.02	598.27	7.22	8.16	12,033.50	7,947.03	-0.54
3/12/2023 1:41:00 PM	95.93	863.95	38.02	598.27	7.22	8.16	12,066.83	7,969.07	-0.54
3/13/2023 1:41:00 AM	95.32	863.94	38.02	598.27	7.22	8.16	12,078.20	7,976.92	-0.54
3/13/2023 1:41:00 PM	94.37	864.76	37.93	598.36	7.22	8.16	12,091.83	7,986.18	-0.54
3/14/2023 1:41:00 AM	93.84	865.16	37.89	598.40	7.23	8.16	12,098.94	7,991.21	-0.54
3/14/2023 1:41:00 PM	94.29	863.67	38.05	598.24	7.23	8.16	12,095.05	7,990.48	-0.54
3/15/2023 1:41:00 AM	94.51	864.09	38.00	598.29	7.27	8.17	12,024.85	7,952.41	-0.55
3/15/2023 1:41:00 PM	95.14	863.73	38.04	598.25	7.24	8.16	11,999.35	7,928.50	-0.55
3/16/2023 1:41:00 AM	95.75	863.20	38.09	598.20	7.26	8.16	11,961.34	7,907.76	-0.55
3/16/2023 1:41:00 PM	96.19	863.36	38.08	598.21	7.24	8.14	11,924.53	7,880.02	-0.55
3/17/2023 1:41:00 AM	96.27	863.44	38.07	598.22	7.22	8.17	11,958.59	7,898.16	-0.55
3/17/2023 1:41:00 PM	96.14	863.52	38.06	598.23	7.22	8.16	11,979.09	7,911.76	-0.55
3/18/2023 1:41:00 AM	95.73	863.78	38.04	598.25	7.22	8.16	11,999.22	7,924.85	-0.55
3/18/2023 1:41:00 PM	95.56	863.78	38.03	598.26	7.22	8.17	12,006.09	7,929.22	-0.55
3/19/2023 1:41:00 AM	95.40	863.68	38.04	598.25	7.22	8.17	12,019.07	7,938.00	-0.55
3/19/2023 1:41:00 PM	95.28	864.04	38.01	598.28	7.22	8.17	12,024.76	7,942.20	-0.55
3/20/2023 1:41:00 AM	95.03	864.01	38.01	598.28	7.23	8.17	12,034.19	7,948.92	-0.55
3/20/2023 1:41:00 PM	94.91	864.05	38.01	598.28	7.22	8.16	12,044.47	7,954.88	-0.55
3/21/2023 1:41:00 AM	94.97	864.14	38.00	598.29	7.23	8.16	12,056.91	7,963.73	-0.55
3/21/2023 1:41:00 PM	95.21	863.72	38.04	598.25	7.24	8.16	12,047.80	7,961.99	-0.55
3/22/2023 1:41:00 AM	94.92	863.99	38.01	598.28	7.22	8.15	12,053.39	7,960.99	-0.55
3/22/2023 1:41:00 PM	94.50	864.05	38.01	598.28	7.22	8.16	12,067.84	7,970.00	-0.55
3/23/2023 1:41:00 AM	94.20	864.53	37.96	598.33	7.22	8.15	12,082.44	7,980.06	-0.55
3/23/2023 1:42:00 PM	94.35	864.13	38.00	598.29	7.22	8.16	12,088.00	7,983.72	-0.55
3/24/2023 1:42:00 AM	94.72	864.48	37.96	598.33	7.22	8.19	12,091.92	7,986.46	-0.55
3/24/2023 1:42:00 PM	95.32	863.79	38.03	598.26	7.24	8.19	12,091.19	7,989.43	-0.55
3/25/2023 1:42:00 AM	95.29	863.71	38.04	598.25	7.22	8.17	12,059.56	7,964.69	-0.55
3/25/2023 1:42:00 PM	95.26	863.98	38.01	598.28	7.22	8.17	12,069.64	7,971.66	-0.55
3/26/2023 1:42:00 AM	95.58	863.32	38.08	598.21	7.23	8.17	12,077.79	7,977.56	-0.55
3/26/2023 1:42:00 PM	96.11	863.18	38.10	598.19	7.24	8.17	12,078.98	7,981.14	-0.55
3/27/2023 1:42:00 AM	96.63	863.11	38.10	598.19	7.24	8.16	11,961.44	7,903.05	-0.55
3/27/2023 1:42:00 PM	96.62	863.18	38.10	598.19	7.22	8.17	11,995.07	7,921.82	-0.55
3/28/2023 1:42:00 AM	96.22	863.68	38.05	598.24	7.22	8.17	12,030.18	7,945.18	-0.55
3/28/2023 1:42:00 PM	95.94	863.57	38.06	598.23	7.23	8.17	12,038.19	7,951.08	-0.55
3/29/2023 1:42:00 AM	95.37	864.01	38.01	598.28	7.23	8.17	12,047.79	7,957.42	-0.55
3/29/2023 1:42:00 PM	95.00	864.40	37.97	598.32	7.23	8.17	12,052.49	7,960.81	-0.55
3/30/2023 1:42:00 AM	95.16	863.87	38.03	598.26	7.23	8.17	12,057.46	7,964.06	-0.55
3/30/2023 1:42:00 PM	94.86	864.38	37.97	598.32	7.22	8.17	12,063.73	7,967.68	-0.55
3/31/2023 1:42:00 AM	94.41	864.57	37.95	598.34	7.23	8.17	12,068.02	7,970.94	-0.55
3/31/2023 1:42:00 PM	94.26	864.43	37.97	598.32	7.23	8.17	12,073.61	7,974.98	-0.55
4/1/2023 1:42:00 AM	94.03	864.50	37.96	598.33	7.23	8.17	12,075.82	7,976.41	-0.55
4/1/2023 1:42:00 PM	93.78	864.94	37.92	598.37	7.22	8.17	12,080.28	7,978.47	-0.55
4/2/2023 1:42:00 AM	93.98	864.50	37.96	598.33	7.23	8.17	12,087.40	7,984.03	-0.55
4/2/2023 1:42:00 PM	94.45	864.24	37.99	598.30	7.23	8.18	12,085.91	7,983.65	-0.55
4/3/2023 1:42:00 AM	94.85	863.90	38.02	598.27	7.25	8.18	12,002.43	7,933.99	-0.55
4/3/2023 1:42:00 PM	95.14	863.76	38.04	598.25	7.23	8.18	11,964.62	7,904.44	-0.55
4/4/2023 1:42:00 AM	95.36	863.87	38.03	598.26	7.23	8.17	11,979.00	7,912.06	-0.55
4/4/2023 1:42:00 PM	95.64	863.13	38.10	598.19	7.23	8.17	11,983.42	7,915.11	-0.55
4/5/2023 1:42:00 AM	95.48	863.92	38.02	598.27	7.22	8.17	12,002.14	7,926.43	-0.55
4/5/2023 1:42:00 PM	95.23	863.79	38.03	598.26	7.23	8.17	12,018.41	7,938.36	-0.55
4/6/2023 1:42:00 AM	95.17	864.10	38.00	598.29	7.23	8.17	12,032.59	7,947.50	-0.55
4/6/2023 1:42:00 PM	95.25	863.83	38.03	598.26	7.23	8.17	12,038.50	7,951.47	-0.55
4/7/2023 1:42:00 AM	94.93	863.98	38.01	598.28	7.22	8.17	12,044.47	7,955.05	-0.55
4/7/2023 1:42:00 PM	94.38	864.39	37.97	598.32	7.23	8.17	12,052.64	7,960.70	-0.55
4/8/2023 1:42:00 AM	93.94	864.30	37.98	598.31	7.23	8.17	12,056.01	7,962.91	-0.55
4/8/2023 1:42:00 PM	94.19	864.39	37.97	598.32	7.22	8.17	12,065.94	7,969.37	-0.55
4/9/2023 1:42:00 AM	94.52	864.09	38.00	598.29	7.23	8.17	12,071.41	7,973.76	-0.55

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/9/2023 1:42:00 PM	94.66	864.07	38.01	598.28	7.24	8.17	12,066.12	7,972.73	-0.55
4/10/2023 1:42:00 AM	93.79	864.63	37.95	598.34	7.24	8.16	12,060.02	7,969.06	-0.55
4/10/2023 1:42:00 PM	94.89	864.41	37.97	598.32	7.23	8.16	12,045.84	7,958.02	-0.55
4/11/2023 1:42:00 AM	94.64	864.19	37.99	598.30	7.23	8.17	12,049.95	7,959.07	-0.55
4/11/2023 1:42:00 PM	94.29	864.89	37.92	598.37	7.23	8.17	12,058.19	7,964.88	-0.55
4/12/2023 1:42:00 AM	94.57	864.26	37.99	598.30	7.23	8.17	12,065.06	7,969.24	-0.55
4/12/2023 1:42:00 PM	94.67	864.08	38.00	598.29	7.23	8.17	12,067.13	7,972.28	-0.55
4/13/2023 1:42:00 AM	94.79	864.19	37.99	598.30	7.23	8.17	12,073.09	7,974.51	-0.55
4/13/2023 1:42:00 PM	94.73	864.01	38.01	598.28	7.23	8.17	12,080.86	7,979.88	-0.55
4/14/2023 1:42:00 AM	94.91	864.05	38.01	598.28	7.23	8.16	12,089.87	7,986.16	-0.55
4/14/2023 1:42:00 PM	95.02	864.20	37.99	598.30	7.23	8.16	12,086.62	7,983.67	-0.55
4/15/2023 1:42:00 AM	95.41	864.00	38.01	598.28	7.24	8.16	12,088.39	7,987.94	-0.55
4/15/2023 1:42:00 PM	95.49	863.80	38.03	598.26	7.22	8.16	12,054.38	7,960.91	-0.55
4/16/2023 1:42:00 AM	95.26	863.92	38.02	598.27	7.22	8.16	12,076.17	7,975.87	-0.55
4/16/2023 1:42:00 PM	94.80	864.20	37.99	598.30	7.22	8.16	12,094.08	7,987.68	-0.55
4/17/2023 1:42:00 AM	93.94	864.33	37.98	598.31	7.23	8.16	12,105.14	7,995.62	-0.55
4/17/2023 1:42:00 PM	93.66	864.62	37.95	598.34	7.23	8.16	12,112.18	8,000.29	-0.55
4/18/2023 1:42:00 AM	94.09	863.97	38.02	598.27	7.23	8.17	12,117.00	8,003.90	-0.55
4/18/2023 1:42:00 PM	94.46	864.23	37.99	598.30	7.23	8.17	12,118.62	8,004.88	-0.55
4/19/2023 1:42:00 AM	95.00	864.01	38.01	598.28	7.23	8.15	12,122.53	8,008.30	-0.55
4/19/2023 1:42:00 PM	95.70	863.71	38.04	598.25	7.25	8.17	12,119.29	8,009.95	-0.55
4/20/2023 1:42:00 AM	96.33	863.21	38.09	598.20	7.24	8.15	12,050.30	7,962.36	-0.55
4/20/2023 1:42:00 PM	96.60	863.22	38.09	598.20	7.23	8.15	12,030.42	7,947.61	-0.55
4/21/2023 1:42:00 AM	96.56	863.41	38.07	598.22	7.23	8.17	12,063.71	7,968.11	-0.55
4/21/2023 1:42:00 PM	96.80	863.12	38.10	598.19	7.23	8.17	12,079.61	7,979.00	-0.55
4/22/2023 1:42:00 AM	96.41	863.68	38.04	598.25	7.23	8.17	12,090.05	7,986.42	-0.55
4/22/2023 1:42:00 PM	95.84	863.81	38.03	598.26	7.23	8.17	12,099.53	7,992.00	-0.55
4/23/2023 1:42:00 AM	95.26	864.31	37.98	598.31	7.23	8.17	12,109.57	7,998.58	-0.55
4/23/2023 1:42:00 PM	94.76	864.65	37.95	598.34	7.23	8.17	12,118.64	8,004.72	-0.55
4/24/2023 1:42:00 AM	94.63	864.67	37.94	598.35	7.23	8.18	12,121.09	8,006.58	-0.55
4/24/2023 1:42:00 PM	94.93	864.02	38.01	598.28	7.23	8.16	12,132.89	8,014.63	-0.56
4/25/2023 1:42:00 AM	95.11	864.44	37.97	598.32	7.23	8.16	12,132.39	8,013.79	-0.56
4/25/2023 1:42:00 PM	94.96	864.03	38.01	598.28	7.23	8.18	12,137.72	8,017.71	-0.56
4/26/2023 1:42:00 AM	95.31	863.91	38.02	598.27	7.23	8.14	12,139.34	8,019.67	-0.55
4/26/2023 1:42:00 PM	94.78	864.42	37.97	598.32	7.23	8.18	12,141.99	8,019.86	-0.55
4/27/2023 1:42:00 AM	94.79	864.32	37.98	598.31	7.23	8.15	12,150.33	8,026.51	-0.55
4/27/2023 1:42:00 PM	95.65	863.30	38.08	598.21	7.24	8.15	12,152.17	8,029.76	-0.55
4/28/2023 1:42:00 AM	95.38	863.73	38.04	598.25	7.23	8.16	12,145.14	8,022.15	-0.55
4/28/2023 1:42:00 PM	95.65	863.67	38.05	598.24	7.23	8.15	12,145.51	8,023.45	-0.55
4/29/2023 1:42:00 AM	95.94	863.52	38.06	598.23	7.23	8.15	12,147.16	8,024.99	-0.55
4/29/2023 1:42:00 PM	95.92	863.48	38.07	598.22	7.26	8.17	12,138.30	8,025.52	-0.55
4/30/2023 1:42:00 AM	95.60	863.84	38.03	598.26	7.23	8.17	12,126.43	8,009.57	-0.55
4/30/2023 1:42:00 PM	95.20	863.91	38.02	598.27	7.23	8.17	12,139.67	8,018.43	-0.55
5/1/2023 1:42:00 AM	94.95	863.93	38.02	598.27	7.23	8.17	12,145.58	8,022.63	-0.55
5/1/2023 1:42:00 PM	94.68	864.16	38.00	598.29	7.23	8.18	12,149.88	8,027.05	-0.55
5/2/2023 1:42:00 AM	94.71	864.42	37.97	598.32	7.23	8.15	12,153.30	8,028.08	-0.55
5/2/2023 1:42:00 PM	95.17	864.03	38.01	598.28	7.24	8.15	12,151.36	8,030.44	-0.55
5/3/2023 1:42:00 AM	95.00	864.07	38.01	598.28	7.23	8.15	12,130.05	8,011.83	-0.55
5/3/2023 1:42:00 PM	94.60	864.55	37.96	598.33	7.23	8.16	12,139.79	8,018.26	-0.55
5/4/2023 1:42:00 AM	94.56	864.34	37.98	598.31	7.23	8.14	12,144.45	8,022.43	-0.55
5/4/2023 1:42:00 PM	94.77	864.53	37.96	598.33	7.23	8.14	12,150.73	8,026.84	-0.55
5/5/2023 1:42:00 AM	95.02	863.88	38.02	598.27	7.23	8.14	12,150.85	8,027.54	-0.55
5/5/2023 1:42:00 PM	95.30	863.77	38.04	598.25	7.24	8.15	12,149.53	8,029.24	-0.55
5/6/2023 1:42:00 AM	95.55	863.74	38.04	598.25	7.23	8.15	12,122.46	8,007.49	-0.55
5/6/2023 1:42:00 PM	95.47	863.78	38.03	598.26	7.22	8.15	12,127.97	8,010.13	-0.55
5/7/2023 1:42:00 AM	95.37	863.73	38.04	598.25	7.23	8.15	12,139.64	8,019.50	-0.55
5/7/2023 1:42:00 PM	95.18	863.98	38.01	598.28	7.23	8.14	12,151.23	8,026.98	-0.55
5/8/2023 1:42:00 AM	95.15	864.25	37.99	598.30	7.23	8.14	12,153.26	8,027.95	-0.55
5/8/2023 1:42:00 PM	94.98	864.04	38.01	598.28	7.23	8.15	12,152.83	8,027.70	-0.55
5/9/2023 1:42:00 AM	95.13	863.86	38.03	598.26	7.23	8.14	12,155.10	8,029.87	-0.55
5/9/2023 1:42:00 PM	95.15	863.98	38.01	598.28	7.23	8.15	12,157.88	8,031.92	-0.55
5/10/2023 1:42:00 AM	95.35	864.19	37.99	598.30	7.23	8.15	12,159.24	8,032.77	-0.55
5/10/2023 1:42:00 PM	95.36	864.06	38.01	598.28	7.23	8.15	12,157.21	8,031.37	-0.55
5/11/2023 1:42:00 AM	95.57	863.73	38.04	598.25	7.23	8.15	12,160.38	8,033.76	-0.55
5/11/2023 1:42:00 PM	95.67	863.72	38.04	598.25	7.24	8.16	12,156.41	8,033.42	-0.55
5/12/2023 1:42:00 AM	96.01	863.61	38.05	598.24	7.24	8.16	12,146.65	8,025.67	-0.55
5/13/2023 1:42:00 AM	96.66	864.18	38.20	598.09	7.24	8.15	12,374.86	8,177.13	-0.27
5/13/2023 1:42:00 PM	96.86	864.11	38.21	598.08	7.24	8.14	12,370.43	8,173.43	-0.27
5/14/2023 1:42:00 AM	96.87	864.39	38.18	598.11	7.24	8.15	12,375.14	8,177.18	-0.28
5/14/2023 1:42:00 PM	96.81	864.30	38.19	598.10	7.24	8.15	12,389.33	8,186.38	-0.28

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 1:42:00 AM	96.41	864.86	38.13	598.16	7.24	8.15	12,414.04	8,203.63	-0.29
5/15/2023 1:42:00 PM	95.75	864.88	38.13	598.16	7.24	8.15	12,437.20	8,217.92	-0.29
5/16/2023 1:42:00 AM	95.13	865.13	38.10	598.19	7.24	8.16	12,445.17	8,224.07	-0.30
5/16/2023 1:42:00 PM	95.81	864.43	38.17	598.12	7.24	8.15	12,458.72	8,233.46	-0.31
5/17/2023 1:42:00 AM	95.92	864.66	38.15	598.14	7.24	8.16	12,465.36	8,237.14	-0.31
5/17/2023 1:42:00 PM	95.73	864.72	38.15	598.14	7.24	8.16	12,473.49	8,243.14	-0.31
5/18/2023 1:42:00 AM	96.12	864.39	38.18	598.11	7.25	8.15	12,457.94	8,233.25	-0.31
5/18/2023 1:42:00 PM	96.05	864.48	38.17	598.12	7.24	8.17	12,478.48	8,246.21	-0.31
5/19/2023 1:42:00 AM	95.65	864.70	38.15	598.14	7.24	8.17	12,485.79	8,251.34	-0.32
5/19/2023 1:42:00 PM	95.15	865.26	38.09	598.20	7.24	8.17	12,485.45	8,250.30	-0.32
5/20/2023 1:42:00 AM	95.53	864.58	38.16	598.13	7.24	8.17	12,476.21	8,244.70	-0.32
5/20/2023 1:42:00 PM	95.78	864.22	38.20	598.09	7.24	8.17	12,452.13	8,228.83	-0.32
5/21/2023 1:42:00 AM	95.57	864.60	38.16	598.13	7.24	8.17	12,423.52	8,209.60	-0.33
5/21/2023 1:42:00 PM	95.17	865.05	38.11	598.18	7.24	8.16	12,423.06	8,209.59	-0.33
5/22/2023 1:42:00 AM	94.77	865.39	38.08	598.21	7.24	8.16	12,448.38	8,226.18	-0.34
5/22/2023 1:42:00 PM	94.44	865.11	38.11	598.18	7.24	8.16	12,451.11	8,228.09	-0.35
5/23/2023 1:42:00 AM	94.57	864.97	38.12	598.17	7.24	8.17	12,455.09	8,230.59	-0.36
5/23/2023 1:42:00 PM	94.87	865.11	38.11	598.18	7.24	8.16	12,453.97	8,229.89	-0.41
5/24/2023 1:42:00 AM	95.25	864.88	38.13	598.16	7.24	8.18	12,451.90	8,228.90	-0.51
5/24/2023 1:43:00 PM	95.24	865.17	38.10	598.19	7.25	8.19	12,446.40	8,227.17	-0.55
5/25/2023 1:43:00 AM	95.40	864.87	38.13	598.16	7.26	8.18	12,438.15	8,223.09	-0.55
5/25/2023 1:43:00 PM	95.64	864.72	38.15	598.14	7.27	8.21	12,375.09	8,185.37	-0.56
5/26/2023 1:43:00 AM	95.65	864.90	38.13	598.16	7.27	8.21	12,303.13	8,135.77	-0.56
5/26/2023 1:43:00 PM	95.44	864.97	38.12	598.17	7.26	8.21	12,277.43	8,117.94	-0.56
5/27/2023 1:43:00 AM	95.23	864.90	38.13	598.16	7.26	8.21	12,257.12	8,104.43	-0.56
5/27/2023 1:43:00 PM	94.96	865.27	38.09	598.20	7.26	8.21	12,205.99	8,071.10	-0.56
5/28/2023 1:43:00 AM	94.66	865.11	38.11	598.18	7.27	8.22	12,146.79	8,033.79	-0.56
5/28/2023 1:43:00 PM	94.44	865.35	38.08	598.21	7.26	8.21	12,113.11	8,009.61	-0.56
5/29/2023 1:43:00 AM	94.61	865.31	38.09	598.20	7.27	8.19	12,083.35	7,990.37	-0.56
5/29/2023 1:43:00 PM	94.39	865.18	38.10	598.19	7.27	8.22	12,013.38	7,945.27	-0.56
5/30/2023 1:43:00 AM	94.69	865.20	38.10	598.19	7.27	8.19	11,963.59	7,911.31	-0.56
5/30/2023 1:43:00 PM	94.52	865.26	38.09	598.20	7.27	8.21	11,913.83	7,879.40	-0.56
5/31/2023 1:43:00 AM	94.80	864.94	38.12	598.17	7.26	8.21	11,811.96	7,808.99	-0.56
5/31/2023 1:43:00 PM	94.83	864.95	38.12	598.17	7.23	8.19	11,833.04	7,816.91	-0.56
6/1/2023 1:43:00 AM	94.91	864.61	38.16	598.13	7.23	8.20	11,906.12	7,866.05	-0.56
6/1/2023 1:43:00 PM	95.41	864.94	38.12	598.17	7.24	8.19	11,909.73	7,870.30	-0.56
6/2/2023 1:43:00 AM	95.49	864.64	38.15	598.14	7.24	8.19	11,897.22	7,861.29	-0.56
6/2/2023 1:43:00 PM	95.72	864.44	38.17	598.12	7.24	8.19	11,907.57	7,868.32	-0.56
6/3/2023 1:43:00 AM	95.81	864.79	38.14	598.15	7.24	8.20	11,933.90	7,885.60	-0.57
6/3/2023 1:43:00 PM	95.82	864.60	38.16	598.13	7.24	8.20	11,952.56	7,897.46	-0.57
6/4/2023 1:43:00 AM	95.59	864.78	38.14	598.15	7.24	8.20	11,974.57	7,913.27	-0.57
6/4/2023 1:43:00 PM	95.26	865.26	38.09	598.20	7.24	8.20	11,998.94	7,928.87	-0.57
6/5/2023 1:43:00 AM	95.23	864.73	38.14	598.15	7.24	8.20	12,009.76	7,936.27	-0.57
6/5/2023 1:43:00 PM	95.15	865.14	38.10	598.19	7.24	8.21	12,027.99	7,948.43	-0.57
6/6/2023 1:43:00 AM	95.63	864.76	38.14	598.15	7.24	8.20	12,035.47	7,953.07	-0.57
6/6/2023 1:43:00 PM	95.52	864.96	38.12	598.17	7.24	8.20	12,039.01	7,955.67	-0.57
6/7/2023 1:43:00 AM	95.17	864.88	38.13	598.16	7.24	8.20	12,055.48	7,965.77	-0.57
6/7/2023 1:43:00 PM	95.09	865.16	38.10	598.19	7.24	8.21	12,070.56	7,976.12	-0.57
6/8/2023 1:43:00 AM	95.35	864.70	38.15	598.14	7.24	8.21	12,073.87	7,978.13	-0.57
6/8/2023 1:43:00 PM	95.64	864.72	38.15	598.14	7.25	8.20	12,073.38	7,980.06	-0.57
6/9/2023 1:43:00 AM	95.68	864.72	38.15	598.14	7.24	8.20	12,069.56	7,975.57	-0.57
6/9/2023 1:43:00 PM	95.62	864.34	38.18	598.11	7.24	8.21	12,081.90	7,984.07	-0.57
6/10/2023 1:43:00 AM	95.44	864.65	38.15	598.14	7.24	8.20	12,096.56	7,993.69	-0.57
6/10/2023 1:43:00 PM	95.19	864.96	38.12	598.17	7.24	8.20	12,100.29	7,996.16	-0.57
6/11/2023 1:43:00 AM	94.90	865.21	38.10	598.19	7.24	8.20	12,114.27	8,005.17	-0.57
6/11/2023 1:43:00 PM	95.17	864.90	38.13	598.16	7.25	8.21	12,118.15	8,008.56	-0.57
6/12/2023 1:43:00 AM	95.39	864.52	38.17	598.12	7.24	8.21	12,132.79	8,016.45	-0.57
6/12/2023 1:43:00 PM	95.30	864.57	38.16	598.13	7.24	8.21	12,131.90	8,015.93	-0.57
6/13/2023 1:43:00 AM	94.93	865.20	38.10	598.19	7.24	8.21	12,142.84	8,024.18	-0.57
6/13/2023 1:43:00 PM	94.32	865.44	38.07	598.22	7.24	8.20	12,153.94	8,031.58	-0.57
6/14/2023 1:43:00 AM	93.72	865.30	38.09	598.20	7.24	8.21	12,154.74	8,030.42	-0.57
6/14/2023 1:43:00 PM	93.89	865.31	38.09	598.20	7.23	8.21	12,165.27	8,037.23	-0.57
6/15/2023 1:43:00 AM	94.10	865.05	38.11	598.18	7.24	8.21	12,168.10	8,040.28	-0.57
6/15/2023 1:43:00 PM	94.95	864.89	38.13	598.16	7.24	8.21	12,166.99	8,040.47	-0.57
6/16/2023 1:43:00 AM	95.23	864.73	38.14	598.15	7.26	8.20	12,164.15	8,042.20	-0.57
6/16/2023 1:43:00 PM	94.67	865.36	38.08	598.21	7.23	8.21	11,985.65	7,918.03	-0.58
6/17/2023 1:43:00 AM	94.67	865.03	38.11	598.18	7.23	8.21	12,045.44	7,957.78	-0.58
6/17/2023 1:43:00 PM	94.62	865.22	38.09	598.20	7.24	8.21	12,083.72	7,983.94	-0.58
6/18/2023 1:43:00 AM	94.34	865.36	38.08	598.21	7.24	8.21	12,108.89	8,001.78	-0.57
6/18/2023 1:43:00 PM	93.98	865.51	38.06	598.23	7.24	8.21	12,124.62	8,011.65	-0.57

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 1:43:00 AM	93.34	866.47	37.97	598.32	7.24	8.21	12,130.58	8,014.79	-0.57
6/19/2023 1:43:00 PM	93.53	866.05	38.01	598.28	7.24	8.21	12,139.70	8,022.19	-0.57
6/20/2023 1:43:00 AM	94.36	865.75	38.04	598.25	7.25	8.21	12,137.62	8,022.81	-0.57
6/20/2023 1:43:00 PM	95.13	865.07	38.11	598.18	7.26	8.22	12,114.96	8,010.99	-0.57
6/21/2023 1:43:00 AM	95.43	865.36	38.08	598.21	7.27	8.22	11,998.54	7,934.71	-0.58
6/21/2023 1:43:00 PM	95.40	865.22	38.09	598.20	7.25	8.22	11,900.95	7,865.66	-0.58
6/22/2023 1:43:00 AM	95.45	865.58	38.06	598.23	7.23	8.21	11,949.84	7,894.53	-0.58
6/22/2023 1:43:00 PM	95.37	865.29	38.09	598.20	7.23	8.21	11,980.38	7,914.61	-0.58
6/23/2023 1:43:00 AM	95.23	865.49	38.07	598.22	7.24	8.21	12,017.09	7,939.46	-0.58
6/23/2023 1:43:00 PM	95.19	865.64	38.05	598.24	7.24	8.21	12,039.55	7,954.57	-0.58
6/24/2023 1:43:00 AM	95.21	865.46	38.07	598.22	7.24	8.21	12,057.40	7,967.00	-0.58
6/24/2023 1:43:00 PM	95.15	865.12	38.10	598.19	7.24	8.21	12,062.43	7,971.56	-0.58
6/25/2023 1:43:00 AM	95.08	865.64	38.05	598.24	7.24	8.21	12,063.33	7,970.73	-0.58
6/25/2023 1:43:00 PM	95.43	864.98	38.12	598.17	7.24	8.20	12,071.45	7,976.63	-0.58
6/26/2023 1:43:00 AM	95.37	865.44	38.07	598.22	7.24	8.21	12,071.76	7,976.49	-0.58
6/26/2023 1:43:00 PM	95.05	865.56	38.06	598.23	7.24	8.21	12,092.24	7,990.32	-0.58
6/27/2023 1:43:00 AM	94.85	865.67	38.05	598.24	7.24	8.21	12,106.98	7,999.74	-0.58
6/27/2023 1:43:00 PM	94.80	865.27	38.09	598.20	7.24	8.21	12,116.05	8,006.29	-0.58
6/28/2023 1:43:00 AM	95.00	865.43	38.07	598.22	7.24	8.21	12,126.21	8,012.95	-0.58
6/28/2023 1:43:00 PM	95.13	865.63	38.05	598.24	7.26	8.21	12,121.74	8,013.56	-0.58
6/29/2023 1:43:00 AM	95.09	865.47	38.07	598.22	7.24	8.20	12,089.72	7,988.20	-0.58
6/29/2023 1:43:00 PM	95.10	865.38	38.08	598.21	7.24	8.21	12,092.95	7,991.44	-0.58
6/30/2023 1:43:00 AM	95.15	865.84	38.03	598.26	7.26	8.20	12,071.56	7,981.18	-0.58
6/30/2023 1:43:00 PM	95.19	865.63	38.05	598.24	7.25	8.20	12,054.25	7,966.44	-0.58
7/1/2023 1:43:00 AM	95.12	865.47	38.07	598.22	7.24	8.21	12,073.67	7,977.40	-0.58
7/1/2023 1:43:00 PM	95.00	865.59	38.06	598.23	7.23	8.21	12,078.86	7,979.68	-0.58
7/2/2023 1:43:00 AM	94.82	865.22	38.09	598.20	7.24	8.21	12,097.29	7,993.28	-0.58
7/2/2023 1:43:00 PM	94.90	865.42	38.07	598.22	7.24	8.21	12,103.30	7,998.59	-0.58
7/3/2023 1:43:00 AM	95.12	865.72	38.04	598.25	7.24	8.22	12,103.05	7,997.58	-0.58
7/3/2023 1:43:00 PM	95.45	865.30	38.09	598.20	7.24	8.21	12,103.32	7,997.79	-0.58
7/4/2023 1:43:00 AM	96.01	864.88	38.13	598.16	7.24	8.22	12,104.89	7,999.44	-0.58
7/4/2023 1:43:00 PM	96.01	864.85	38.13	598.16	7.26	8.22	12,107.06	8,003.65	-0.58
7/5/2023 1:43:00 AM	95.78	865.14	38.10	598.19	7.24	8.22	12,101.38	7,996.29	-0.58
7/5/2023 1:43:00 PM	95.45	865.01	38.12	598.17	7.24	8.21	12,122.88	8,010.78	-0.58
7/6/2023 1:43:00 AM	95.24	865.85	38.03	598.26	7.24	8.21	12,132.39	8,016.10	-0.58
7/6/2023 1:43:00 PM	95.43	865.43	38.07	598.22	7.24	8.21	12,135.19	8,019.07	-0.58
7/7/2023 1:43:00 AM	95.58	865.13	38.10	598.19	7.24	8.22	12,138.87	8,020.52	-0.58
7/7/2023 1:43:00 PM	95.73	865.09	38.11	598.18	7.24	8.22	12,139.84	8,021.29	-0.58
7/8/2023 1:43:00 AM	95.47	864.88	38.13	598.16	7.24	8.22	12,149.28	8,027.17	-0.58
7/8/2023 1:43:00 PM	95.10	865.54	38.06	598.23	7.24	8.22	12,153.82	8,030.52	-0.58
7/9/2023 1:43:00 AM	94.83	865.70	38.05	598.24	7.24	8.21	12,161.70	8,036.17	-0.58
7/9/2023 1:43:00 PM	94.80	865.56	38.06	598.23	7.24	8.22	12,165.53	8,038.51	-0.58
7/10/2023 1:43:00 AM	94.89	865.58	38.06	598.23	7.24	8.22	12,168.17	8,040.57	-0.58
7/10/2023 1:43:00 PM	95.33	865.38	38.08	598.21	7.25	8.21	12,168.72	8,043.95	-0.58
7/11/2023 1:43:00 AM	95.24	865.45	38.07	598.22	7.24	8.21	12,150.90	8,029.98	-0.58
7/11/2023 1:43:00 PM	95.19	865.16	38.10	598.19	7.24	8.22	12,157.24	8,032.55	-0.58
7/12/2023 1:43:00 AM	95.11	865.55	38.06	598.23	7.24	8.22	12,163.33	8,036.99	-0.58
7/12/2023 1:43:00 PM	95.01	865.60	38.06	598.23	7.24	8.22	12,167.22	8,039.43	-0.58
7/13/2023 1:43:00 AM	95.00	865.50	38.07	598.22	7.24	8.21	12,172.18	8,043.86	-0.58
7/13/2023 1:43:00 PM	95.13	865.46	38.07	598.22	7.25	8.21	12,169.73	8,044.32	-0.58
7/14/2023 1:43:00 AM	95.30	865.28	38.09	598.20	7.25	8.21	12,162.58	8,038.33	-0.58
7/14/2023 1:43:00 PM	95.57	865.28	38.09	598.20	7.25	8.22	12,149.41	8,029.52	-0.58
7/15/2023 1:43:00 AM	95.56	865.03	38.11	598.18	7.26	8.21	12,135.51	8,023.61	-0.58
7/15/2023 1:43:00 PM	95.48	865.16	38.10	598.19	7.24	8.22	12,133.22	8,016.29	-0.58
7/16/2023 1:43:00 AM	95.54	865.41	38.08	598.21	7.24	8.21	12,141.48	8,022.40	-0.58
7/16/2023 1:43:00 PM	95.49	865.31	38.09	598.20	7.24	8.22	12,153.59	8,030.70	-0.58
7/17/2023 1:43:00 AM	95.20	865.42	38.07	598.22	7.24	8.22	12,158.00	8,033.65	-0.58
7/17/2023 1:43:00 PM	94.58	865.68	38.05	598.24	7.24	8.22	12,167.81	8,040.84	-0.58
7/18/2023 1:43:00 AM	94.45	865.73	38.04	598.25	7.24	8.22	12,175.55	8,046.09	-0.58
7/18/2023 1:43:00 PM	95.09	865.62	38.05	598.24	7.25	8.22	12,179.17	8,049.08	-0.58
7/19/2023 1:43:00 AM	95.79	865.17	38.10	598.19	7.26	8.22	12,178.71	8,052.88	-0.58
7/19/2023 1:43:00 PM	96.06	865.07	38.11	598.18	7.24	8.23	11,999.94	7,929.98	-0.58
7/20/2023 1:43:00 AM	96.03	865.29	38.09	598.20	7.23	8.22	12,059.20	7,966.78	-0.58
7/20/2023 1:43:00 PM	96.00	865.42	38.07	598.22	7.23	8.22	12,112.14	8,002.22	-0.58
7/21/2023 1:43:00 AM	95.82	865.14	38.10	598.19	7.24	8.22	12,130.87	8,015.39	-0.58
7/21/2023 1:43:00 PM	95.68	865.49	38.07	598.22	7.24	8.23	12,147.42	8,026.34	-0.58
7/22/2023 1:43:00 AM	95.44	865.70	38.05	598.24	7.24	8.22	12,160.71	8,035.99	-0.58
7/22/2023 1:43:00 PM	95.16	865.79	38.04	598.25	7.24	8.22	12,173.54	8,043.96	-0.58
7/23/2023 1:43:00 AM	95.11	865.83	38.03	598.26	7.24	8.22	12,179.09	8,047.23	-0.58
7/23/2023 1:43:00 PM	95.31	865.71	38.05	598.24	7.24	8.23	12,179.04	8,047.25	-0.58

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 1:43:00 AM	95.27	865.40	38.08	598.21	7.24	8.22	12,187.71	8,053.80	-0.58
7/24/2023 1:43:00 PM	94.92	865.81	38.03	598.26	7.24	8.22	12,197.51	8,060.56	-0.58
7/25/2023 1:44:00 AM	94.60	865.93	38.02	598.27	7.24	8.22	12,208.55	8,066.65	-0.58
7/25/2023 1:44:00 PM	94.76	865.90	38.03	598.26	7.24	8.22	12,216.80	8,072.95	-0.58
7/26/2023 1:44:00 AM	94.89	865.89	38.03	598.26	7.24	8.22	12,215.30	8,071.23	-0.58
7/26/2023 1:44:00 PM	94.68	866.06	38.01	598.28	7.24	8.22	12,225.27	8,078.52	-0.58
7/27/2023 1:44:00 AM	95.19	865.57	38.06	598.23	7.24	8.22	12,227.68	8,079.89	-0.58
7/27/2023 1:44:00 PM	95.91	865.34	38.08	598.21	7.26	8.22	12,224.04	8,081.32	-0.58
7/28/2023 1:44:00 AM	96.25	865.48	38.07	598.22	7.27	8.22	12,181.20	8,055.67	-0.58
7/28/2023 1:44:00 PM	96.39	865.17	38.10	598.19	7.23	8.22	12,152.34	8,028.63	-0.58
7/29/2023 1:44:00 AM	96.30	865.20	38.10	598.19	7.24	8.22	12,178.69	8,047.30	-0.58
7/29/2023 1:44:00 PM	96.08	865.32	38.08	598.21	7.24	8.22	12,201.74	8,063.55	-0.58
7/30/2023 1:44:00 AM	95.78	865.73	38.04	598.25	7.24	8.22	12,218.10	8,073.60	-0.58
7/30/2023 1:44:00 PM	95.37	865.65	38.05	598.24	7.24	8.22	12,224.71	8,078.66	-0.58
7/31/2023 1:44:00 AM	95.20	865.80	38.04	598.25	7.24	8.22	12,230.41	8,082.16	-0.58
7/31/2023 1:44:00 PM	95.28	865.66	38.05	598.24	7.24	8.22	12,239.05	8,087.66	-0.58
8/1/2023 1:44:00 AM	95.47	865.70	38.05	598.24	7.24	8.22	12,246.41	8,092.15	-0.58
8/1/2023 1:44:00 PM	95.56	865.84	38.03	598.26	7.24	8.21	12,248.57	8,093.53	-0.58
8/2/2023 1:44:00 AM	95.70	865.25	38.09	598.20	7.24	8.22	12,255.39	8,097.62	-0.58
8/2/2023 1:44:00 PM	95.76	865.34	38.08	598.21	7.25	8.22	12,253.36	8,098.06	-0.58
8/3/2023 1:44:00 AM	95.53	865.62	38.05	598.24	7.24	8.22	12,253.64	8,097.62	-0.58
8/3/2023 1:44:00 PM	95.61	865.38	38.08	598.21	7.24	8.22	12,260.55	8,102.18	-0.58
8/4/2023 1:44:00 AM	95.83	865.51	38.07	598.22	7.24	8.22	12,267.04	8,105.43	-0.58
8/4/2023 1:44:00 PM	95.99	865.80	38.04	598.25	7.24	8.22	12,264.58	8,103.93	-0.58
8/5/2023 1:44:00 AM	96.17	864.81	38.14	598.15	7.24	8.23	12,266.56	8,104.68	-0.59
8/5/2023 1:44:00 PM	96.37	865.16	38.10	598.19	7.25	8.23	12,262.64	8,105.56	-0.60
8/6/2023 1:44:00 AM	96.27	865.23	38.09	598.20	7.25	8.22	12,265.89	8,106.25	-0.59
8/6/2023 1:44:00 PM	96.08	865.54	38.06	598.23	7.24	8.23	12,272.87	8,109.99	-0.59
8/7/2023 1:44:00 AM	95.69	865.74	38.04	598.25	7.24	8.23	12,278.79	8,114.09	-0.59
8/7/2023 1:44:00 PM	95.56	865.84	38.03	598.26	7.24	8.23	12,284.98	8,117.96	-0.59
8/8/2023 1:44:00 AM	95.42	865.74	38.04	598.25	7.24	8.22	12,288.81	8,120.48	-0.59
8/8/2023 1:44:00 PM	95.23	865.58	38.18	598.11	7.24	8.22	12,291.55	8,121.06	-0.59
8/9/2023 1:44:00 AM	95.01	865.62	38.18	598.11	7.24	8.22	12,289.60	8,121.15	-0.58
8/9/2023 1:44:00 PM	94.59	866.17	38.12	598.17	7.26	8.22	12,288.49	8,123.87	-0.58
8/10/2023 1:44:00 AM	94.04	866.66	38.07	598.22	7.24	8.22	12,271.77	8,108.36	-0.58
8/11/2023 1:44:00 AM	94.55	865.97	38.14	598.15	7.24	8.17	12,011.06	7,937.57	-0.27
8/11/2023 1:44:00 PM	95.00	865.67	38.18	598.11	7.24	8.13	12,005.90	7,933.94	-0.27
8/12/2023 1:44:00 AM	95.20	865.96	38.15	598.14	7.24	8.13	12,006.26	7,934.12	-0.28
8/12/2023 1:44:00 PM	95.49	865.53	38.19	598.10	7.25	8.14	12,009.77	7,938.14	-0.28
8/13/2023 1:44:00 AM	95.91	865.22	38.22	598.07	7.24	8.14	12,021.52	7,944.56	-0.29
8/13/2023 1:44:00 PM	95.74	865.55	38.19	598.10	7.24	8.15	12,026.38	7,947.14	-0.29
8/14/2023 1:44:00 AM	95.57	865.90	38.15	598.14	7.24	8.16	12,042.56	7,958.45	-0.30
8/14/2023 1:44:00 PM	95.54	865.86	38.16	598.13	7.24	8.17	12,045.65	7,958.44	-0.30
8/15/2023 1:44:00 AM	95.64	865.74	38.17	598.12	7.24	8.18	12,043.28	7,958.70	-0.31
8/15/2023 1:44:00 PM	94.94	866.01	38.14	598.15	7.24	8.19	12,038.21	7,955.10	-0.31
8/16/2023 1:44:00 AM	95.07	865.82	38.16	598.13	7.25	8.19	12,034.10	7,953.56	-0.31
8/16/2023 1:44:00 PM	95.38	865.54	38.19	598.10	7.26	8.18	12,025.08	7,949.83	-0.32
8/17/2023 1:44:00 AM	94.95	866.13	38.13	598.16	7.26	8.19	12,022.72	7,948.98	-0.32
8/17/2023 1:44:00 PM	94.24	866.57	38.08	598.21	7.24	8.20	11,951.97	7,898.17	-0.32
8/18/2023 1:44:00 AM	94.14	866.78	38.06	598.23	7.24	8.20	11,976.50	7,913.57	-0.32
8/18/2023 1:44:00 PM	94.37	866.15	38.13	598.16	7.24	8.20	11,999.41	7,928.75	-0.32
8/19/2023 1:44:00 AM	95.38	865.89	38.15	598.14	7.24	8.20	12,008.58	7,935.92	-0.33
8/19/2023 1:44:00 PM	95.92	865.29	38.21	598.08	7.25	8.20	12,017.01	7,943.53	-0.33
8/20/2023 1:44:00 AM	96.12	865.56	38.19	598.10	7.27	8.21	12,030.74	7,955.41	-0.33
8/20/2023 1:44:00 PM	95.98	865.59	38.18	598.11	7.28	8.22	11,985.89	7,929.08	-0.33
8/21/2023 1:44:00 AM	95.90	865.78	38.16	598.13	7.27	8.22	11,904.58	7,874.10	-0.35
8/21/2023 1:44:00 PM	95.83	866.02	38.14	598.15	7.26	8.21	11,905.42	7,871.55	-0.35
8/22/2023 1:44:00 AM	95.63	866.23	38.12	598.17	7.25	8.21	11,952.13	7,899.83	-0.35
8/22/2023 1:44:00 PM	95.50	866.09	38.13	598.16	7.24	8.21	11,973.61	7,911.62	-0.36
8/23/2023 1:44:00 AM	95.32	866.04	38.14	598.15	7.24	8.22	12,001.98	7,930.87	-0.37
8/23/2023 1:44:00 PM	95.02	866.52	38.09	598.20	7.24	8.21	12,017.49	7,941.11	-0.40
8/24/2023 1:44:00 AM	94.91	865.94	38.15	598.14	7.24	8.21	12,028.85	7,949.41	-0.51
8/24/2023 1:44:00 PM	95.66	866.08	38.13	598.16	7.25	8.22	12,033.01	7,952.74	-0.56
8/25/2023 1:44:00 AM	96.30	865.49	38.19	598.10	7.25	8.22	12,025.96	7,949.30	-0.56
8/25/2023 1:44:00 PM	96.18	865.65	38.18	598.11	7.27	8.20	12,027.81	7,954.60	-0.56
8/26/2023 1:44:00 AM	95.71	866.08	38.13	598.16	7.24	8.20	11,944.78	7,892.26	-0.56
8/26/2023 1:44:00 PM	95.44	865.90	38.15	598.14	7.24	8.20	11,996.09	7,926.40	-0.56
8/27/2023 1:44:00 AM	95.59	865.86	38.16	598.13	7.24	8.20	12,016.17	7,939.72	-0.56
8/27/2023 1:44:00 PM	95.78	865.81	38.16	598.13	7.24	8.20	12,025.31	7,945.16	-0.56
8/28/2023 1:44:00 AM	95.67	865.78	38.16	598.13	7.24	8.20	12,051.36	7,963.02	-0.56

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 1:44:00 PM	95.70	865.87	38.16	598.13	7.24	8.20	12,059.89	7,968.77	-0.56
8/29/2023 1:44:00 AM	95.61	865.85	38.16	598.13	7.24	8.21	12,066.89	7,973.41	-0.56
8/29/2023 1:44:00 PM	95.24	866.05	38.14	598.15	7.24	8.20	12,081.10	7,982.78	-0.56
8/30/2023 1:44:00 AM	94.71	866.45	38.10	598.19	7.24	8.21	12,090.66	7,988.69	-0.56
8/30/2023 1:44:00 PM	94.32	866.60	38.08	598.21	7.24	8.21	12,100.85	7,995.85	-0.56
8/31/2023 1:44:00 AM	94.31	866.64	38.08	598.21	7.24	8.20	12,107.65	8,000.43	-0.56
8/31/2023 1:44:00 PM	94.35	866.53	38.09	598.20	7.24	8.20	12,109.60	8,001.90	-0.56
9/1/2023 1:44:00 AM	94.76	866.20	38.12	598.17	7.25	8.19	12,111.50	8,004.37	-0.56
9/1/2023 1:44:00 PM	94.75	866.09	38.13	598.16	7.24	8.21	12,110.85	8,002.39	-0.56
9/2/2023 1:44:00 AM	94.19	866.58	38.08	598.21	7.24	8.20	12,121.39	8,009.75	-0.56
9/2/2023 1:44:00 PM	94.44	866.46	38.10	598.19	7.24	8.21	12,125.37	8,012.31	-0.56
9/3/2023 1:44:00 AM	94.74	866.07	38.13	598.16	7.24	8.21	12,138.50	8,020.53	-0.56
9/3/2023 1:44:00 PM	94.45	866.25	38.12	598.17	7.24	8.22	12,137.13	8,019.95	-0.57
9/4/2023 1:44:00 AM	94.76	866.23	38.12	598.17	7.24	8.21	12,141.87	8,024.08	-0.56
9/4/2023 1:44:00 PM	95.28	866.10	38.13	598.16	7.27	8.22	12,123.28	8,017.82	-0.57
9/5/2023 1:44:00 AM	95.60	866.10	38.13	598.16	7.24	8.22	12,112.17	8,003.69	-0.57
9/5/2023 1:44:00 PM	95.36	866.35	38.11	598.18	7.24	8.23	12,120.58	8,008.53	-0.57
9/6/2023 1:44:00 AM	95.04	866.48	38.09	598.20	7.24	8.22	12,128.28	8,014.18	-0.57
9/6/2023 1:44:00 PM	95.08	866.36	38.11	598.18	7.24	8.22	12,135.89	8,018.92	-0.57
9/7/2023 1:44:00 AM	95.06	866.17	38.12	598.17	7.24	8.22	12,145.42	8,025.14	-0.57
9/7/2023 1:44:00 PM	95.30	865.72	38.17	598.12	7.25	8.21	12,140.05	8,024.10	-0.57
9/8/2023 1:44:00 AM	95.65	865.70	38.17	598.12	7.25	8.21	12,139.89	8,024.43	-0.57
9/8/2023 1:44:00 PM	95.93	865.66	38.18	598.11	7.25	8.21	12,111.07	8,004.78	-0.57
9/9/2023 1:44:00 AM	96.24	865.42	38.20	598.09	7.25	8.21	12,117.56	8,008.17	-0.57
9/9/2023 1:44:00 PM	96.40	865.36	38.21	598.08	7.24	8.21	12,098.64	7,995.03	-0.57
9/10/2023 1:44:00 AM	96.32	865.98	38.14	598.15	7.24	8.23	12,120.78	8,008.95	-0.57
9/10/2023 1:44:00 PM	96.08	865.97	38.14	598.15	7.24	8.22	12,126.38	8,013.08	-0.57
9/11/2023 1:44:00 AM	95.72	866.34	38.11	598.18	7.24	8.23	12,137.66	8,019.90	-0.57
9/11/2023 1:44:00 PM	95.33	866.40	38.10	598.19	7.24	8.24	12,146.94	8,025.87	-0.57
9/12/2023 1:44:00 AM	95.02	866.80	38.06	598.23	7.24	8.22	12,151.83	8,029.44	-0.57
9/12/2023 1:44:00 PM	94.89	866.46	38.09	598.20	7.24	8.23	12,154.65	8,031.38	-0.57
9/13/2023 1:44:00 AM	94.83	866.57	38.08	598.21	7.24	8.23	12,164.35	8,037.69	-0.57
9/13/2023 1:44:00 PM	94.97	866.57	38.08	598.21	7.25	8.22	12,163.01	8,038.52	-0.57
9/14/2023 1:44:00 AM	95.39	865.97	38.14	598.15	7.28	8.23	12,142.43	8,032.33	-0.57
9/14/2023 1:44:00 PM	95.76	865.78	38.16	598.13	7.23	8.24	12,108.77	7,999.93	-0.57
9/15/2023 1:44:00 AM	95.79	865.80	38.16	598.13	7.24	8.24	12,127.23	8,012.84	-0.57
9/15/2023 1:44:00 PM	95.39	866.15	38.13	598.16	7.24	8.23	12,140.60	8,022.13	-0.57
9/16/2023 1:44:00 AM	94.91	866.36	38.10	598.19	7.24	8.23	12,149.83	8,028.26	-0.57
9/16/2023 1:44:00 PM	95.22	866.15	38.13	598.16	7.25	8.22	12,152.81	8,031.64	-0.57
9/17/2023 1:44:00 AM	94.69	866.47	38.09	598.20	7.24	8.24	12,157.21	8,032.72	-0.57
9/17/2023 1:44:00 PM	94.28	866.55	38.09	598.20	7.24	8.23	12,160.12	8,034.48	-0.57
9/18/2023 1:44:00 AM	94.23	866.77	38.06	598.23	7.24	8.23	12,171.06	8,042.85	-0.57
9/18/2023 1:44:00 PM	94.50	866.08	38.13	598.16	7.25	8.23	12,170.10	8,043.65	-0.57
9/19/2023 1:44:00 AM	94.80	866.26	38.11	598.18	7.25	8.24	12,166.38	8,041.14	-0.57
9/19/2023 1:44:00 PM	94.82	866.23	38.12	598.17	7.24	8.23	12,152.14	8,030.85	-0.57
9/20/2023 1:44:00 AM	95.00	866.04	38.14	598.15	7.24	8.23	12,162.61	8,037.49	-0.57
9/20/2023 1:44:00 PM	95.55	865.53	38.19	598.10	7.27	8.24	12,154.10	8,038.79	-0.57
9/21/2023 1:44:00 AM	96.03	865.45	38.20	598.09	7.25	8.23	12,101.21	7,997.70	-0.57
9/21/2023 1:44:00 PM	96.05	865.81	38.16	598.13	7.25	8.23	12,090.67	7,991.61	-0.57
9/22/2023 1:44:00 AM	95.81	865.81	38.16	598.13	7.24	8.23	12,031.43	7,950.66	-0.57
9/22/2023 1:44:00 PM	95.54	865.81	38.16	598.13	7.24	8.24	12,053.63	7,964.01	-0.57
9/23/2023 1:44:00 AM	95.15	866.18	38.12	598.17	7.26	8.23	12,050.25	7,967.45	-0.57
9/23/2023 1:44:00 PM	94.87	866.63	38.08	598.21	7.24	8.24	11,804.24	7,800.00	-0.57
9/24/2023 1:44:00 AM	94.52	866.81	38.06	598.23	7.26	8.23	11,810.74	7,809.00	-0.57
9/24/2023 1:44:00 PM	94.92	866.09	38.13	598.16	7.29	8.25	11,707.74	7,747.59	-0.57
9/25/2023 1:45:00 AM	95.33	866.00	38.14	598.15	7.23	8.26	11,549.67	7,629.38	-0.58
9/25/2023 1:45:00 PM	95.20	865.95	38.15	598.14	7.24	8.24	11,684.68	7,720.04	-0.58
9/26/2023 1:45:00 AM	94.52	866.75	38.07	598.22	7.23	8.24	11,770.38	7,776.35	-0.58
9/26/2023 1:45:00 PM	94.54	866.28	38.11	598.18	7.25	8.23	11,791.06	7,794.54	-0.58
9/27/2023 1:45:00 AM	94.71	866.30	38.11	598.18	7.24	8.24	11,817.64	7,807.85	-0.58
9/27/2023 1:45:00 PM	94.69	866.32	38.11	598.18	7.25	8.23	11,834.86	7,823.26	-0.58
9/28/2023 1:45:00 AM	94.78	866.47	38.09	598.20	7.24	8.24	11,836.19	7,820.07	-0.58
9/28/2023 1:45:00 PM	94.75	866.23	38.12	598.17	7.24	8.24	11,852.06	7,830.63	-0.58
9/29/2023 1:45:00 AM	94.79	866.17	38.12	598.17	7.25	8.23	11,867.09	7,843.11	-0.57
9/29/2023 1:45:00 PM	95.13	865.88	38.15	598.14	7.26	8.24	11,694.85	7,732.94	-0.58
9/30/2023 1:45:00 AM	95.71	865.93	38.15	598.14	7.26	8.22	11,685.08	7,725.86	-0.58
9/30/2023 1:45:00 PM	96.03	865.60	38.18	598.11	7.25	8.24	11,654.74	7,702.92	-0.58
10/1/2023 1:45:00 AM	96.15	865.58	38.18	598.11	7.24	8.24	11,699.52	7,730.27	-0.58
10/1/2023 1:45:00 PM	95.68	865.75	38.17	598.12	7.26	8.23	11,713.74	7,744.47	-0.58
10/2/2023 1:45:00 AM	94.97	866.39	38.10	598.19	7.25	8.22	11,693.99	7,728.73	-0.58

Table D.7 Summary of 2023 Continuous Water Quality Measurements at 1F1/07-11

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/2/2023 1:45:00 PM	94.61	866.63	38.08	598.21	7.24	8.23	11,708.20	7,735.76	-0.58
10/3/2023 1:45:00 AM	94.78	866.46	38.09	598.20	7.25	8.23	11,732.31	7,754.80	-0.58
10/3/2023 1:45:00 PM	94.99	866.10	38.13	598.16	7.25	8.24	11,565.76	7,644.69	-0.58
10/4/2023 1:45:00 AM	94.62	866.38	38.10	598.19	7.24	8.26	11,295.42	7,464.41	-0.58
10/4/2023 1:45:00 PM	95.04	866.17	38.12	598.17	7.23	8.26	11,163.55	7,374.25	-0.58
10/5/2023 1:45:00 AM	96.01	865.70	38.17	598.12	7.24	8.27	11,108.70	7,339.51	-0.58
10/5/2023 1:45:00 PM	96.70	865.41	38.20	598.09	7.23	8.27	11,098.76	7,331.63	-0.58
10/6/2023 1:45:00 AM	96.73	865.51	38.19	598.10	7.23	8.27	11,075.49	7,315.95	-0.58
10/6/2023 1:45:00 PM	95.74	866.09	38.13	598.16	7.24	8.27	11,047.24	7,299.67	-0.58
10/7/2023 1:45:00 AM	95.42	866.02	38.14	598.15	7.24	8.27	10,984.17	7,257.06	-0.58
10/7/2023 1:45:00 PM	95.47	866.23	38.12	598.17	7.23	8.27	10,895.64	7,196.57	-0.58
10/8/2023 1:45:00 AM	95.12	866.40	38.10	598.19	7.23	8.27	10,876.28	7,184.55	-0.58
10/8/2023 1:45:00 PM	94.78	866.56	38.08	598.21	7.23	8.28	10,729.35	7,086.96	-0.58
10/9/2023 1:45:00 AM	94.48	866.89	38.05	598.24	7.24	8.27	10,683.77	7,058.84	-0.58
10/9/2023 1:45:00 PM	94.07	866.66	38.07	598.22	7.23	8.27	10,683.84	7,056.69	-0.58
10/10/2023 1:45:00 AM	93.80	866.76	38.06	598.23	7.23	8.27	10,695.98	7,065.03	-0.58
10/10/2023 1:45:00 PM	93.48	866.81	38.06	598.23	7.22	8.28	10,567.21	6,979.45	-0.58
10/11/2023 1:45:00 AM	93.60	866.55	38.00	598.29	7.22	8.29	10,381.84	6,855.94	-0.58
10/11/2023 1:45:00 PM	94.13	866.55	38.00	598.29	7.22	8.29	10,253.94	6,772.09	-0.58
10/12/2023 1:45:00 AM	95.10	865.69	38.09	598.20	7.21	8.29	10,160.61	6,708.59	-0.58
10/12/2023 1:45:00 PM	95.95	865.40	38.11	598.18	7.22	8.28	10,150.62	6,703.21	-0.58
10/13/2023 1:45:00 AM	96.27	865.16	38.14	598.15	7.22	8.28	10,119.10	6,682.16	-0.58
10/13/2023 1:45:00 PM	96.00	865.84	38.07	598.22	7.21	8.28	10,173.11	6,716.75	-0.58
10/14/2023 1:45:00 AM	95.67	865.95	38.06	598.23	7.22	8.28	10,112.57	6,678.21	-0.58
10/14/2023 1:45:00 PM	95.70	865.67	38.09	598.20	7.21	8.28	10,067.93	6,646.84	-0.58
10/15/2023 1:45:00 AM	95.70	865.72	38.08	598.21	7.22	8.27	10,145.72	6,700.44	-0.58
10/15/2023 1:45:00 PM	95.62	865.68	38.09	598.20	7.22	8.27	10,154.97	6,705.79	-0.58
10/16/2023 1:45:00 AM	95.77	865.88	38.07	598.22	7.22	8.28	10,116.06	6,680.35	-0.58
10/16/2023 1:45:00 PM	95.20	866.35	38.02	598.27	7.22	8.27	10,182.90	6,723.80	-0.58
10/17/2023 1:45:00 AM	94.18	866.68	37.99	598.30	7.23	8.25	10,271.46	6,784.68	-0.58
10/17/2023 1:45:00 PM	94.89	865.98	38.06	598.23	7.23	8.26	10,281.13	6,791.41	-0.58
10/18/2023 1:45:00 AM	94.96	866.07	38.05	598.24	7.23	8.25	10,344.95	6,832.75	-0.58
10/18/2023 1:45:00 PM	94.41	866.46	38.01	598.28	7.22	8.23	10,335.42	6,826.31	-0.58
10/19/2023 1:45:00 AM	94.63	866.27	38.03	598.26	7.23	8.24	10,458.29	6,908.89	-0.58
10/19/2023 1:45:00 PM	94.45	866.30	38.02	598.27	7.23	8.24	10,413.32	6,878.22	-0.58
10/20/2023 1:45:00 AM	94.71	865.81	38.07	598.22	7.23	8.24	10,450.23	6,902.88	-0.58
10/20/2023 1:45:00 PM	95.30	865.82	38.07	598.22	7.22	8.25	10,390.33	6,861.42	-0.58
10/21/2023 1:45:00 AM	95.65	865.62	38.09	598.20	7.22	8.24	10,412.13	6,877.02	-0.58
10/21/2023 1:45:00 PM	95.15	865.81	38.16	598.13	7.23	8.23	10,485.43	6,926.52	-0.59
10/22/2023 1:45:00 AM	95.48	865.64	38.09	598.20	7.23	8.24	10,472.86	6,917.89	-0.59
10/22/2023 1:45:00 PM	95.29	865.95	38.06	598.23	7.22	8.24	10,428.48	6,887.04	-0.59
10/23/2023 1:45:00 AM	95.78	865.63	38.09	598.20	7.22	8.23	10,432.58	6,890.04	-0.59
10/23/2023 1:45:00 PM	95.86	865.37	38.12	598.17	7.22	8.24	10,439.88	6,893.72	-0.59
10/24/2023 1:45:00 AM	96.13	865.38	38.12	598.17	7.23	8.24	10,460.13	6,909.03	-0.59
10/24/2023 1:45:00 PM	96.16	865.28	38.21	598.08	7.23	8.24	10,478.07	6,921.10	-0.59
10/25/2023 1:45:00 AM	96.22	865.61	38.09	598.20	7.22	8.24	10,454.25	6,904.62	-0.59
10/25/2023 1:45:00 PM	96.14	865.69	38.09	598.20	7.22	8.24	10,473.05	6,915.45	-0.59
10/26/2023 1:45:00 AM	96.19	865.59	38.10	598.19	7.22	8.24	10,454.83	6,904.34	-0.59
10/26/2023 1:45:00 PM	96.37	865.65	38.09	598.20	7.23	8.24	10,472.05	6,917.61	-0.59
10/27/2023 1:45:00 AM	96.38	865.30	38.13	598.16	7.22	8.24	10,455.78	6,905.64	-0.59
10/27/2023 1:45:00 PM	96.22	865.46	38.11	598.18	7.22	8.24	10,449.61	6,901.27	-0.59
10/28/2023 1:45:00 AM	96.08	865.93	38.15	598.14	7.23	8.23	10,497.92	6,934.33	-0.59
10/28/2023 1:45:00 PM	96.34	865.42	38.20	598.09	7.22	8.24	10,545.35	6,964.32	-0.59
10/29/2023 1:45:00 AM	96.70	865.11	38.23	598.06	7.23	8.23	10,619.25	7,014.71	-0.59
10/29/2023 1:45:00 PM	96.41	865.60	38.18	598.11	7.23	8.23	10,640.18	7,028.92	-0.59
10/30/2023 1:45:00 AM	96.00	865.64	38.18	598.11	7.23	8.24	10,622.81	7,017.43	-0.59
10/30/2023 1:45:00 PM	96.47	865.64	38.18	598.11	7.23	8.23	10,637.07	7,026.74	-0.59
10/31/2023 1:45:00 AM	95.69	866.00	38.14	598.15	7.23	8.23	10,654.68	7,037.66	-0.59
10/31/2023 1:45:00 PM	95.76	865.75	38.17	598.12	7.23	8.24	10,571.06	6,982.31	-0.59
11/1/2023 1:45:00 AM	95.80	865.50	38.19	598.10	7.22	8.24	10,545.97	6,965.29	-0.59
11/1/2023 12:45:00 PM	95.48	865.84	38.16	598.13	7.21	8.25	10,482.15	6,920.75	-0.59
11/2/2023 12:45:00 AM	94.88	866.42	38.10	598.19	7.23	8.24	10,543.08	6,964.05	-0.59

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	1441	1441	1441	1441	1441	1415	1397	1280	1441
[Pre-Injection] Min	91.22	124.93	1.96	638.31	4.63	7.81	1,219.50	745.37	-0.70
[Pre-Injection] Max	96.78	188.26	3.02	639.37	11.21	10.79	2,354.11	1,439.35	-0.06
[Pre-Injection] Mean	94.09	180.21	2.47	638.86	5.21	9.00	1,801.37	1,116.65	-0.44
[Pre-Injection] Median	94.22	179.65	2.50	638.83	4.78	9.02	1,855.23	1,147.93	-0.46
[Pre-Injection] Standard Deviation	1.07	7.95	0.16	0.16	1.31	0.55	165.54	99.63	0.09
[2023] Count	559	559	559	559	559	559	559	559	559
[2023] Min	92.75	174.02	1.92	638.82	5.14	8.52	1,541.61	957.56	-0.50
[2023] Max	97.24	271.76	2.51	639.41	5.34	9.32	1,771.93	1,101.30	-0.15
[2023] Mean	94.60	177.47	2.27	639.06	5.18	9.22	1,627.85	1,011.65	-0.45
[2023] Median	94.60	176.09	2.29	639.04	5.18	9.24	1,584.66	985.34	-0.46
[2023] Standard Deviation	0.78	9.85	0.10	0.10	0.02	0.09	73.67	45.98	0.04
1/1/2023 1:08:00 AM	94.80	176.42	2.27	639.06	5.16	9.29	1,569.45	974.85	-0.47
1/1/2023 1:08:00 PM	94.85	177.00	2.21	639.12	5.17	9.29	1,569.25	974.75	-0.47
1/2/2023 1:08:00 AM	94.63	177.04	2.21	639.12	5.16	9.29	1,569.52	974.89	-0.47
1/2/2023 1:08:00 PM	94.33	176.95	2.22	639.11	5.16	9.30	1,569.78	975.05	-0.47
1/3/2023 1:08:00 AM	94.11	176.88	2.22	639.11	5.17	9.30	1,569.68	975.00	-0.47
1/3/2023 1:08:00 PM	94.36	176.40	2.27	639.06	5.17	9.29	1,569.79	975.08	-0.47
1/4/2023 1:08:00 AM	94.98	176.48	2.27	639.06	5.16	9.28	1,569.10	974.62	-0.47
1/4/2023 1:08:00 PM	95.24	176.26	2.29	639.04	5.16	9.28	1,568.81	974.45	-0.47
1/5/2023 1:08:00 AM	95.15	177.16	2.20	639.13	5.16	9.28	1,568.77	974.40	-0.47
1/5/2023 1:08:00 PM	94.61	177.01	2.21	639.12	5.17	9.28	1,568.57	974.32	-0.47
1/6/2023 1:08:00 AM	94.54	177.04	2.21	639.12	5.17	9.28	1,568.94	974.56	-0.47
1/6/2023 1:08:00 PM	94.81	176.79	2.23	639.10	5.16	9.28	1,568.65	974.35	-0.47
1/7/2023 1:08:00 AM	94.94	176.76	2.24	639.09	5.16	9.27	1,568.74	974.40	-0.47
1/7/2023 1:08:00 PM	94.93	176.84	2.23	639.10	5.16	9.28	1,568.76	974.42	-0.47
1/8/2023 1:08:00 AM	94.40	176.95	2.22	639.11	5.16	9.28	1,568.65	974.33	-0.47
1/8/2023 1:08:00 PM	94.27	176.92	2.22	639.11	5.16	9.28	1,569.26	974.69	-0.47
1/9/2023 1:08:00 AM	94.31	176.69	2.24	639.09	5.16	9.28	1,569.22	974.66	-0.47
1/9/2023 1:08:00 PM	94.21	177.06	2.21	639.12	5.16	9.29	1,569.05	974.59	-0.47
1/10/2023 1:08:00 AM	94.45	176.23	2.29	639.04	5.16	9.29	1,568.95	974.48	-0.47
1/10/2023 1:08:00 PM	94.85	176.42	2.27	639.06	5.17	9.29	1,568.89	974.51	-0.47
1/11/2023 1:08:00 AM	95.44	176.21	2.29	639.04	5.16	9.29	1,568.71	974.35	-0.47
1/11/2023 1:08:00 PM	95.66	176.69	2.24	639.09	5.16	9.29	1,568.66	974.31	-0.47
1/12/2023 1:08:00 AM	95.56	176.78	2.23	639.10	5.16	9.29	1,568.79	974.40	-0.47
1/12/2023 1:08:00 PM	95.04	176.80	2.23	639.10	5.16	9.29	1,569.11	974.62	-0.47
1/13/2023 1:08:00 AM	94.76	176.84	2.23	639.10	5.16	9.30	1,569.31	974.71	-0.47
1/13/2023 1:08:00 PM	94.19	177.19	2.19	639.14	5.16	9.30	1,569.53	974.85	-0.47
1/14/2023 1:08:00 AM	93.94	176.76	2.24	639.09	5.16	9.30	1,569.90	975.08	-0.47
1/14/2023 1:08:00 PM	93.88	177.07	2.20	639.13	5.16	9.30	1,569.58	974.92	-0.47
1/15/2023 1:08:00 AM	93.96	176.19	2.29	639.04	5.16	9.29	1,569.83	975.07	-0.47
1/15/2023 1:08:00 PM	94.04	176.92	2.22	639.11	5.17	9.30	1,569.66	974.99	-0.47
1/16/2023 1:08:00 AM	94.23	177.15	2.20	639.13	5.16	9.29	1,569.28	974.73	-0.47
1/16/2023 1:08:00 PM	94.35	177.01	2.21	639.12	5.16	9.29	1,569.51	974.82	-0.47
1/17/2023 1:08:00 AM	94.54	176.74	2.24	639.09	5.17	9.29	1,569.21	974.70	-0.48
1/17/2023 1:08:00 PM	94.60	176.94	2.22	639.11	5.16	9.29	1,569.29	974.71	-0.48
1/18/2023 1:08:00 AM	94.56	177.03	2.21	639.12	5.16	9.29	1,569.54	974.85	-0.48
1/18/2023 1:08:00 PM	94.46	176.85	2.23	639.10	5.16	9.29	1,569.26	974.69	-0.48
1/19/2023 1:08:00 AM	95.11	176.19	2.29	639.04	5.16	9.29	1,569.49	974.83	-0.48
1/19/2023 1:08:00 PM	95.41	176.33	2.28	639.05	5.16	9.29	1,569.24	974.68	-0.48
1/20/2023 1:08:00 AM	95.38	176.63	2.25	639.08	5.16	9.29	1,569.27	974.71	-0.49
1/20/2023 1:08:00 PM	95.34	176.97	2.22	639.11	5.16	9.29	1,569.28	974.68	-0.49
1/21/2023 1:08:00 AM	95.01	176.79	2.23	639.10	5.16	9.29	1,569.24	974.69	-0.49
1/21/2023 1:08:00 PM	94.33	177.20	2.19	639.14	5.16	9.29	1,569.34	974.74	-0.49
1/22/2023 1:08:00 AM	94.99	176.08	2.31	639.02	5.16	9.29	1,569.46	974.81	-0.49
1/22/2023 1:08:00 PM	95.60	176.24	2.29	639.04	5.16	9.29	1,569.14	974.64	-0.49
1/23/2023 1:08:00 AM	94.71	177.42	2.17	639.16	5.16	9.29	1,569.27	974.65	-0.49
1/23/2023 1:08:00 PM	94.77	176.50	2.26	639.07	5.16	9.29	1,569.49	974.81	-0.49
1/24/2023 1:08:00 AM	95.14	176.65	2.25	639.08	5.16	9.29	1,569.06	974.55	-0.49
1/24/2023 1:08:00 PM	95.69	175.98	2.32	639.01	5.16	9.30	1,569.47	974.78	-0.49
1/25/2023 1:08:00 AM	95.99	176.68	2.24	639.09	5.16	9.30	1,568.97	974.48	-0.49
1/25/2023 1:08:00 PM	95.30	177.15	2.20	639.13	5.16	9.30	1,569.38	974.76	-0.49
1/26/2023 1:08:00 AM	94.65	176.49	2.26	639.07	5.16	9.30	1,569.57	974.86	-0.49
1/26/2023 1:08:00 PM	94.87	176.63	2.25	639.08	5.16	9.29	1,569.39	974.76	-0.49
1/27/2023 1:08:00 AM	95.69	175.61	2.35	638.98	5.16	9.30	1,569.23	974.63	-0.49
1/27/2023 1:08:00 PM	96.53	175.75	2.34	638.99	5.16	9.30	1,569.46	974.77	-0.49
1/28/2023 1:08:00 AM	97.02	176.04	2.31	639.02	5.16	9.30	1,568.98	974.43	-0.49
1/28/2023 1:08:00 PM	96.81	176.10	2.30	639.03	5.16	9.30	1,569.02	974.47	-0.49
1/29/2023 1:08:00 AM	96.73	176.96	2.22	639.11	5.16	9.30	1,570.51	975.42	-0.49

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 1:08:00 PM	95.59	177.49	2.16	639.17	5.16	9.30	1,569.86	975.00	-0.49
1/30/2023 1:08:00 AM	95.82	176.33	2.28	639.05	5.16	9.29	1,569.11	974.59	-0.49
1/30/2023 1:08:00 PM	95.00	176.56	2.26	639.07	5.16	9.29	1,568.64	974.28	-0.49
1/31/2023 1:08:00 AM	95.08	175.67	2.35	638.98	5.16	9.29	1,569.25	974.71	-0.49
1/31/2023 1:08:00 PM	94.94	176.73	2.24	639.09	5.16	9.29	1,568.75	974.40	-0.49
2/1/2023 1:08:00 AM	95.61	175.42	2.37	638.96	5.16	9.29	1,569.00	974.54	-0.49
2/1/2023 1:08:00 PM	96.49	175.56	2.36	638.97	5.16	9.29	1,568.75	974.36	-0.49
2/2/2023 1:08:00 AM	96.02	176.95	2.22	639.11	5.16	9.29	1,568.95	974.48	-0.50
2/2/2023 1:08:00 PM	95.06	177.07	2.20	639.13	5.16	9.29	1,569.03	974.54	-0.50
2/3/2023 1:08:00 AM	94.22	177.18	2.19	639.14	5.16	9.29	1,569.16	974.67	-0.49
2/3/2023 1:08:00 PM	94.04	176.58	2.25	639.08	5.16	9.29	1,569.21	974.70	-0.49
2/4/2023 1:08:00 AM	94.24	176.85	2.23	639.10	5.16	9.29	1,569.68	974.98	-0.49
2/4/2023 1:08:00 PM	94.38	176.64	2.25	639.08	5.16	9.29	1,569.34	974.75	-0.49
2/5/2023 1:08:00 AM	93.66	176.93	2.22	639.11	5.16	9.29	1,569.33	974.71	-0.49
2/5/2023 1:08:00 PM	93.61	176.36	2.28	639.05	5.16	9.30	1,569.58	974.91	-0.49
2/6/2023 1:08:00 AM	94.41	176.36	2.28	639.05	5.16	9.30	1,569.53	974.88	-0.49
2/6/2023 1:09:00 PM	93.89	177.13	2.20	639.13	5.16	9.30	1,569.33	974.73	-0.50
2/7/2023 1:09:00 AM	94.49	175.88	2.33	639.00	5.16	9.30	1,571.45	976.05	-0.49
2/7/2023 1:09:00 PM	94.49	176.77	2.23	639.10	5.16	9.31	1,571.20	975.87	-0.50
2/8/2023 1:09:00 AM	95.51	175.52	2.36	638.97	5.16	9.31	1,570.27	975.34	-0.50
2/8/2023 1:09:00 PM	95.94	176.09	2.30	639.03	5.16	9.31	1,569.88	975.05	-0.50
2/9/2023 1:09:00 AM	95.79	176.26	2.29	639.04	5.16	9.31	1,569.66	974.89	-0.50
2/9/2023 1:09:00 PM	95.02	176.19	2.29	639.04	5.16	9.32	1,570.16	975.20	-0.49
2/10/2023 1:09:00 AM	94.18	176.64	2.25	639.08	5.16	9.30	1,569.80	975.00	-0.49
2/10/2023 1:09:00 PM	94.57	175.89	2.32	639.01	5.16	9.30	1,570.16	975.25	-0.49
2/11/2023 1:09:00 AM	94.78	175.94	2.32	639.01	5.16	9.30	1,569.59	974.85	-0.50
2/11/2023 1:09:00 PM	94.61	177.14	2.20	639.13	5.16	9.29	1,569.59	974.87	-0.50
2/12/2023 1:09:00 AM	94.49	176.70	2.24	639.09	5.16	9.29	1,569.60	974.92	-0.50
2/12/2023 1:09:00 PM	93.18	177.01	2.21	639.12	5.16	9.30	1,569.56	974.91	-0.50
2/13/2023 1:09:00 AM	92.81	176.72	2.24	639.09	5.17	9.30	1,569.86	975.11	-0.50
2/13/2023 1:09:00 PM	94.04	269.07	2.47	638.86	5.16	9.30	1,569.99	975.16	-0.50
2/14/2023 1:09:00 AM	95.25	271.15	2.26	639.07	5.16	9.30	1,569.92	975.06	-0.50
2/14/2023 1:09:00 PM	95.47	271.72	2.21	639.12	5.16	9.31	1,569.26	974.65	-0.50
2/15/2023 1:09:00 AM	95.48	271.75	2.20	639.13	5.16	9.30	1,573.63	977.37	-0.50
2/15/2023 1:09:00 PM	95.43	271.76	2.20	639.13	5.16	9.29	1,575.84	978.77	-0.50
2/16/2023 1:09:00 AM	94.62	271.37	2.24	639.09	5.16	9.29	1,576.31	979.06	-0.50
2/17/2023 1:09:00 AM	94.45	176.58	2.21	639.12	5.18	9.20	1,669.97	1,037.85	-0.35
2/17/2023 1:09:00 PM	94.80	176.20	2.25	639.08	5.18	9.20	1,668.74	1,036.93	-0.36
2/18/2023 1:09:00 AM	94.33	176.13	2.26	639.07	5.18	9.20	1,666.83	1,035.75	-0.37
2/18/2023 1:09:00 PM	94.69	176.23	2.25	639.08	5.18	9.20	1,663.24	1,033.49	-0.37
2/19/2023 1:09:00 AM	94.87	176.07	2.26	639.07	5.18	9.19	1,661.66	1,032.55	-0.38
2/19/2023 1:09:00 PM	93.81	176.39	2.23	639.10	5.18	9.20	1,661.90	1,032.75	-0.38
2/20/2023 1:09:00 AM	94.64	176.51	2.22	639.11	5.18	9.20	1,654.92	1,028.34	-0.39
2/20/2023 1:09:00 PM	95.23	176.00	2.27	639.06	5.18	9.20	1,652.70	1,026.93	-0.39
2/21/2023 1:09:00 AM	94.67	175.99	2.27	639.06	5.18	9.20	1,652.96	1,027.08	-0.39
2/21/2023 1:09:00 PM	95.65	176.25	2.24	639.09	5.18	9.20	1,657.20	1,029.75	-0.40
2/22/2023 1:09:00 AM	96.33	175.96	2.27	639.06	5.18	9.20	1,654.24	1,027.96	-0.41
2/22/2023 1:09:00 PM	96.77	175.76	2.29	639.04	5.18	9.20	1,653.17	1,027.25	-0.41
2/23/2023 1:09:00 AM	96.94	175.96	2.27	639.06	5.18	9.19	1,651.02	1,025.96	-0.42
2/23/2023 1:09:00 PM	97.24	175.52	2.32	639.01	5.18	9.19	1,649.03	1,024.69	-0.43
2/24/2023 1:09:00 AM	96.82	175.92	2.28	639.05	5.18	9.19	1,648.64	1,024.48	-0.43
2/24/2023 1:09:00 PM	95.54	175.47	2.32	639.01	5.18	9.20	1,649.86	1,025.21	-0.43
2/25/2023 1:09:00 AM	94.44	176.00	2.27	639.06	5.18	9.20	1,647.94	1,024.04	-0.43
2/25/2023 1:09:00 PM	94.31	175.87	2.28	639.05	5.18	9.20	1,634.57	1,015.68	-0.44
2/26/2023 1:09:00 AM	93.40	175.77	2.29	639.04	5.18	9.21	1,632.35	1,014.26	-0.43
2/26/2023 1:09:00 PM	92.86	175.90	2.28	639.05	5.18	9.21	1,626.20	1,010.44	-0.44
2/27/2023 1:09:00 AM	93.25	176.22	2.25	639.08	5.18	9.21	1,617.51	1,005.02	-0.44
2/27/2023 1:09:00 PM	93.92	176.03	2.27	639.06	5.18	9.22	1,613.37	1,002.45	-0.45
2/28/2023 1:09:00 AM	94.17	176.02	2.27	639.06	5.18	9.22	1,611.28	1,001.16	-0.45
2/28/2023 1:09:00 PM	94.61	175.96	2.27	639.06	5.18	9.22	1,607.68	998.93	-0.45
3/1/2023 1:09:00 AM	94.91	175.70	2.30	639.03	5.17	9.22	1,606.25	998.01	-0.45
3/1/2023 1:09:00 PM	94.33	175.84	2.29	639.04	5.18	9.23	1,605.63	997.63	-0.45
3/2/2023 1:09:00 AM	93.31	175.87	2.28	639.05	5.17	9.23	1,604.94	997.17	-0.45
3/2/2023 1:09:00 PM	92.75	175.88	2.28	639.05	5.17	9.24	1,603.21	996.11	-0.46
3/3/2023 1:09:00 AM	93.39	176.05	2.26	639.07	5.17	9.25	1,600.55	994.46	-0.46
3/3/2023 1:09:00 PM	93.69	175.73	2.30	639.03	5.17	9.26	1,599.38	993.69	-0.46
3/4/2023 1:09:00 AM	94.19	176.47	2.22	639.11	5.17	9.26	1,597.38	992.49	-0.46
3/4/2023 1:09:00 PM	95.04	175.70	2.30	639.03	5.17	9.25	1,598.95	993.42	-0.46
3/5/2023 1:09:00 AM	95.85	175.77	2.29	639.04	5.17	9.24	1,592.29	989.29	-0.46
3/5/2023 1:09:00 PM	96.50	175.60	2.31	639.02	5.17	9.24	1,589.84	987.78	-0.46

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/6/2023 1:09:00 AM	96.63	175.52	2.32	639.01	5.17	9.23	1,588.48	986.92	-0.46
3/6/2023 1:09:00 PM	96.70	175.71	2.30	639.03	5.17	9.23	1,587.06	986.03	-0.46
3/7/2023 1:09:00 AM	96.56	175.45	2.33	639.00	5.17	9.23	1,585.38	985.00	-0.46
3/7/2023 1:09:00 PM	96.52	175.82	2.29	639.04	5.17	9.23	1,583.64	983.91	-0.46
3/8/2023 1:09:00 AM	96.86	175.78	2.29	639.04	5.17	9.23	1,581.03	982.31	-0.46
3/8/2023 1:09:00 PM	97.18	175.50	2.32	639.01	5.17	9.24	1,578.94	981.01	-0.46
3/9/2023 1:09:00 AM	97.16	175.74	2.30	639.03	5.17	9.24	1,577.72	980.27	-0.46
3/9/2023 1:09:00 PM	96.55	175.63	2.31	639.02	5.17	9.24	1,578.11	980.49	-0.46
3/10/2023 1:09:00 AM	95.63	175.69	2.30	639.03	5.17	9.24	1,578.68	980.87	-0.46
3/10/2023 1:09:00 PM	95.14	175.62	2.31	639.02	5.17	9.24	1,577.98	980.40	-0.46
3/11/2023 1:09:00 AM	95.46	175.85	2.29	639.04	5.17	9.24	1,575.53	978.88	-0.46
3/11/2023 1:09:00 PM	95.96	175.76	2.29	639.04	5.17	9.25	1,576.79	979.60	-0.46
3/12/2023 1:09:00 AM	96.09	175.28	2.34	638.99	5.17	9.25	1,577.64	980.20	-0.46
3/12/2023 2:09:00 PM	95.96	175.50	2.32	639.01	5.17	9.25	1,578.14	980.47	-0.46
3/13/2023 2:09:00 AM	95.37	175.76	2.29	639.04	5.17	9.25	1,579.01	980.97	-0.46
3/13/2023 2:09:00 PM	94.46	175.37	2.33	639.00	5.17	9.25	1,579.97	981.59	-0.46
3/14/2023 2:09:00 AM	93.80	175.54	2.32	639.01	5.17	9.26	1,579.94	981.57	-0.46
3/14/2023 2:09:00 PM	94.22	175.94	2.28	639.05	5.17	9.26	1,578.65	980.73	-0.46
3/15/2023 2:09:00 AM	94.45	175.92	2.28	639.05	5.17	9.26	1,577.68	980.18	-0.47
3/15/2023 2:09:00 PM	95.05	175.87	2.28	639.05	5.17	9.26	1,575.88	979.05	-0.47
3/16/2023 2:09:00 AM	95.69	175.83	2.29	639.04	5.17	9.26	1,573.70	977.68	-0.47
3/16/2023 2:09:00 PM	96.15	175.06	2.37	638.96	5.17	9.26	1,572.21	976.73	-0.47
3/17/2023 2:09:00 AM	96.25	175.05	2.37	638.96	5.17	9.26	1,571.97	976.59	-0.47
3/17/2023 2:09:00 PM	96.15	175.41	2.33	639.00	5.17	9.27	1,571.36	976.17	-0.47
3/18/2023 2:09:00 AM	95.74	175.76	2.29	639.04	5.17	9.27	1,570.91	975.92	-0.46
3/18/2023 2:09:00 PM	95.59	175.67	2.30	639.03	5.17	9.27	1,570.58	975.70	-0.46
3/19/2023 2:09:00 AM	95.40	175.83	2.29	639.04	5.17	9.27	1,569.76	975.18	-0.46
3/19/2023 2:09:00 PM	95.29	175.69	2.30	639.03	5.17	9.27	1,569.48	975.02	-0.47
3/20/2023 2:09:00 AM	95.05	175.57	2.31	639.02	5.17	9.27	1,568.76	974.54	-0.47
3/20/2023 2:09:00 PM	94.92	175.25	2.35	638.98	5.17	9.28	1,568.44	974.35	-0.47
3/21/2023 2:09:00 AM	94.93	175.62	2.31	639.02	5.17	9.28	1,567.09	973.51	-0.47
3/21/2023 2:09:00 PM	95.21	175.85	2.29	639.04	5.17	9.28	1,566.08	972.85	-0.47
3/22/2023 2:09:00 AM	94.96	175.99	2.27	639.06	5.17	9.28	1,566.12	972.89	-0.47
3/22/2023 2:09:00 PM	94.51	175.70	2.30	639.03	5.17	9.28	1,566.23	972.95	-0.47
3/23/2023 2:09:00 AM	94.26	175.56	2.31	639.02	5.17	9.28	1,565.03	972.23	-0.47
3/23/2023 2:09:00 PM	94.32	175.83	2.29	639.04	5.17	9.29	1,563.97	971.58	-0.47
3/24/2023 2:09:00 AM	94.64	176.00	2.27	639.06	5.17	9.29	1,562.08	970.36	-0.47
3/24/2023 2:09:00 PM	95.29	175.74	2.30	639.03	5.17	9.29	1,560.63	969.44	-0.47
3/25/2023 2:09:00 AM	95.27	175.56	2.31	639.02	5.17	9.29	1,560.88	969.60	-0.47
3/25/2023 2:09:00 PM	95.22	176.00	2.27	639.06	5.17	9.29	1,559.93	969.02	-0.47
3/26/2023 2:10:00 AM	95.53	175.66	2.30	639.03	5.17	9.30	1,558.44	968.08	-0.47
3/26/2023 2:10:00 PM	96.07	175.57	2.31	639.02	5.17	9.30	1,556.83	967.07	-0.47
3/27/2023 2:10:00 AM	96.57	175.53	2.32	639.01	5.17	9.30	1,555.68	966.32	-0.47
3/27/2023 2:10:00 PM	96.64	175.43	2.33	639.00	5.17	9.30	1,555.38	966.12	-0.46
3/28/2023 2:10:00 AM	96.22	175.78	2.29	639.04	5.17	9.30	1,555.17	966.01	-0.46
3/28/2023 2:10:00 PM	95.97	175.07	2.36	638.97	5.17	9.30	1,554.71	965.71	-0.46
3/29/2023 2:10:00 AM	95.38	175.36	2.34	638.99	5.17	9.30	1,554.63	965.73	-0.46
3/29/2023 2:10:00 PM	95.00	175.84	2.29	639.04	5.17	9.30	1,554.75	965.85	-0.46
3/30/2023 2:10:00 AM	95.12	175.55	2.32	639.01	5.17	9.30	1,553.35	964.92	-0.47
3/30/2023 2:10:00 PM	94.88	175.55	2.32	639.01	5.17	9.30	1,553.75	965.15	-0.47
3/31/2023 2:10:00 AM	94.41	175.81	2.29	639.04	5.17	9.30	1,554.05	965.36	-0.47
3/31/2023 2:10:00 PM	94.25	175.78	2.29	639.04	5.17	9.30	1,553.94	965.31	-0.47
4/1/2023 2:10:00 AM	94.04	176.21	2.25	639.08	5.17	9.30	1,553.22	964.86	-0.47
4/1/2023 2:10:00 PM	93.79	175.56	2.31	639.02	5.17	9.31	1,553.36	964.94	-0.47
4/2/2023 2:10:00 AM	93.91	175.80	2.29	639.04	5.17	9.31	1,552.60	964.48	-0.47
4/2/2023 2:10:00 PM	94.37	175.86	2.28	639.05	5.17	9.31	1,550.90	963.43	-0.47
4/3/2023 2:10:00 AM	94.79	175.93	2.28	639.05	5.17	9.31	1,551.07	963.49	-0.47
4/3/2023 2:10:00 PM	95.11	175.62	2.31	639.02	5.17	9.31	1,550.61	963.19	-0.47
4/4/2023 2:10:00 AM	95.30	175.79	2.29	639.04	5.17	9.31	1,549.74	962.63	-0.47
4/4/2023 2:10:00 PM	95.63	175.30	2.34	638.99	5.17	9.31	1,548.75	962.02	-0.47
4/5/2023 2:10:00 AM	95.45	175.51	2.32	639.01	5.17	9.31	1,548.87	962.16	-0.47
4/5/2023 2:10:00 PM	95.22	175.86	2.28	639.05	5.17	9.31	1,548.66	961.96	-0.47
4/6/2023 2:10:00 AM	95.10	176.10	2.26	639.07	5.17	9.31	1,548.22	961.67	-0.47
4/6/2023 2:10:00 PM	95.20	175.82	2.29	639.04	5.17	9.31	1,547.42	961.18	-0.47
4/7/2023 2:10:00 AM	94.94	176.10	2.26	639.07	5.17	9.31	1,547.77	961.41	-0.47
4/7/2023 2:10:00 PM	94.39	175.79	2.29	639.04	5.17	9.32	1,547.71	961.38	-0.47
4/8/2023 2:10:00 AM	93.95	174.94	2.38	638.95	5.17	9.32	1,548.00	961.55	-0.47
4/8/2023 2:10:00 PM	94.26	175.61	2.31	639.02	5.17	9.32	1,546.65	960.72	-0.47
4/9/2023 2:10:00 AM	94.22	175.55	2.32	639.01	5.17	9.32	1,545.80	960.19	-0.47
4/9/2023 2:10:00 PM	94.50	175.29	2.34	638.99	5.17	9.32	1,545.15	959.81	-0.47

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/10/2023 2:10:00 AM	94.47	174.41	2.43	638.90	5.17	9.32	1,546.49	960.64	-0.47
4/10/2023 2:10:00 PM	94.69	175.33	2.34	638.99	5.17	9.32	1,544.28	959.24	-0.47
4/11/2023 2:10:00 AM	94.66	175.56	2.31	639.02	5.17	9.31	1,544.50	959.38	-0.47
4/11/2023 2:10:00 PM	94.34	175.08	2.36	638.97	5.17	9.31	1,544.42	959.31	-0.47
4/12/2023 2:10:00 AM	94.50	175.84	2.29	639.04	5.17	9.31	1,543.93	959.02	-0.46
4/12/2023 2:10:00 PM	94.71	175.90	2.28	639.05	5.17	9.31	1,543.77	958.90	-0.46
4/13/2023 2:10:00 AM	94.73	174.75	2.40	638.93	5.16	9.30	1,543.47	958.71	-0.46
4/13/2023 2:10:00 PM	94.75	174.49	2.42	638.91	5.17	9.28	1,544.20	959.21	-0.47
4/14/2023 2:10:00 AM	94.86	175.69	2.30	639.03	5.16	9.28	1,543.44	958.66	-0.47
4/14/2023 2:10:00 PM	95.02	175.27	2.34	638.99	5.16	9.27	1,543.07	958.46	-0.47
4/15/2023 2:10:00 AM	95.35	175.13	2.36	638.97	5.16	9.26	1,542.90	958.33	-0.47
4/15/2023 2:10:00 PM	95.47	175.14	2.36	638.97	5.16	9.26	1,542.71	958.22	-0.47
4/16/2023 2:10:00 AM	95.24	175.11	2.36	638.97	5.17	9.26	1,542.64	958.20	-0.47
4/16/2023 2:10:00 PM	94.86	174.75	2.40	638.93	5.17	9.25	1,542.89	958.37	-0.47
4/17/2023 2:10:00 AM	93.97	175.05	2.37	638.96	5.16	9.26	1,543.49	958.71	-0.47
4/17/2023 2:10:00 PM	93.61	174.95	2.38	638.95	5.16	9.26	1,543.64	958.81	-0.47
4/18/2023 2:10:00 AM	93.97	175.79	2.29	639.04	5.17	9.23	1,543.08	958.51	-0.47
4/18/2023 2:10:00 PM	94.42	175.18	2.35	638.98	5.17	9.22	1,542.70	958.25	-0.47
4/19/2023 2:10:00 AM	94.88	174.82	2.39	638.94	5.17	9.21	1,541.61	957.56	-0.47
4/19/2023 2:10:00 PM	95.61	175.34	2.34	638.99	5.16	9.21	1,541.98	957.74	-0.47
4/20/2023 2:10:00 AM	96.23	174.84	2.39	638.94	5.16	9.21	1,543.09	958.43	-0.47
4/20/2023 2:10:00 PM	96.60	174.52	2.42	638.91	5.16	9.21	1,544.63	959.37	-0.47
4/21/2023 2:10:00 AM	96.52	174.93	2.38	638.95	5.16	9.21	1,545.87	960.17	-0.47
4/21/2023 2:10:00 PM	96.79	174.95	2.38	638.95	5.16	9.20	1,547.35	961.12	-0.47
4/22/2023 2:10:00 AM	96.42	174.45	2.43	638.90	5.16	9.20	1,547.97	961.45	-0.47
4/22/2023 2:10:00 PM	95.87	174.80	2.39	638.94	5.16	9.20	1,549.16	962.20	-0.47
4/23/2023 2:10:00 AM	95.20	174.67	2.40	638.93	5.16	9.20	1,549.84	962.66	-0.47
4/23/2023 2:10:00 PM	94.80	175.18	2.35	638.98	5.17	9.20	1,550.06	962.82	-0.47
4/24/2023 2:10:00 AM	94.56	175.68	2.30	639.03	5.16	9.20	1,549.95	962.74	-0.47
4/24/2023 2:10:00 PM	94.82	175.05	2.37	638.96	5.16	9.20	1,549.88	962.67	-0.47
4/25/2023 2:10:00 AM	95.10	175.24	2.35	638.98	5.16	9.19	1,549.96	962.73	-0.47
4/25/2023 2:10:00 PM	94.76	175.99	2.27	639.06	5.16	9.19	1,550.08	962.80	-0.47
4/26/2023 2:10:00 AM	95.26	175.17	2.35	638.98	5.16	9.19	1,549.69	962.55	-0.47
4/26/2023 2:10:00 PM	94.89	175.06	2.37	638.96	5.16	9.19	1,550.04	962.77	-0.47
4/27/2023 2:10:00 AM	94.67	175.63	2.31	639.02	5.16	9.19	1,550.20	962.88	-0.47
4/27/2023 2:10:00 PM	95.66	175.21	2.35	638.98	5.16	9.18	1,549.44	962.40	-0.46
4/28/2023 2:10:00 AM	95.35	175.12	2.36	638.97	5.17	9.19	1,549.93	962.74	-0.46
4/28/2023 2:10:00 PM	95.64	174.89	2.38	638.95	5.16	9.19	1,550.49	963.06	-0.46
4/29/2023 2:10:00 AM	95.84	175.21	2.35	638.98	5.17	9.18	1,549.92	962.72	-0.46
4/29/2023 2:10:00 PM	95.94	174.55	2.42	638.91	5.17	9.19	1,550.53	963.11	-0.46
4/30/2023 2:10:00 AM	95.55	175.56	2.31	639.02	5.17	9.19	1,551.25	963.55	-0.46
4/30/2023 2:10:00 PM	95.21	175.00	2.37	638.96	5.17	9.18	1,551.53	963.74	-0.46
5/1/2023 2:10:00 AM	94.90	175.36	2.34	638.99	5.16	9.18	1,551.21	963.52	-0.46
5/1/2023 2:10:00 PM	94.65	175.45	2.33	639.00	5.16	9.19	1,551.42	963.63	-0.46
5/2/2023 2:10:00 AM	94.60	175.44	2.33	639.00	5.16	9.18	1,551.18	963.50	-0.46
5/2/2023 2:10:00 PM	95.16	174.74	2.40	638.93	5.17	9.19	1,550.93	963.35	-0.46
5/3/2023 2:10:00 AM	94.92	175.12	2.36	638.97	5.17	9.19	1,551.26	963.58	-0.46
5/3/2023 2:10:00 PM	94.60	174.83	2.39	638.94	5.17	9.18	1,551.92	964.01	-0.46
5/4/2023 2:10:00 AM	94.46	175.01	2.37	638.96	5.17	9.17	1,551.39	963.71	-0.46
5/4/2023 2:10:00 PM	94.72	175.03	2.37	638.96	5.17	9.18	1,551.19	963.55	-0.46
5/5/2023 2:10:00 AM	94.92	175.19	2.35	638.98	5.17	9.18	1,550.47	963.09	-0.46
5/5/2023 2:10:00 PM	95.25	175.28	2.34	638.99	5.17	9.18	1,550.78	963.28	-0.46
5/6/2023 2:10:00 AM	95.44	175.23	2.35	638.98	5.17	9.17	1,551.26	963.65	-0.46
5/6/2023 2:10:00 PM	95.46	175.46	2.33	639.00	5.17	9.17	1,551.61	963.86	-0.46
5/7/2023 2:10:00 AM	95.31	174.87	2.38	638.95	5.17	9.18	1,552.24	964.23	-0.46
5/7/2023 2:10:00 PM	95.12	174.67	2.40	638.93	5.17	9.18	1,552.49	964.34	-0.45
5/8/2023 2:10:00 AM	95.07	175.18	2.35	638.98	5.17	9.17	1,552.56	964.40	-0.45
5/8/2023 2:10:00 PM	95.00	175.11	2.36	638.97	5.17	9.17	1,552.80	964.51	-0.45
5/9/2023 2:10:00 AM	95.06	175.05	2.37	638.96	5.17	9.17	1,552.85	964.58	-0.45
5/9/2023 2:10:00 PM	95.15	174.91	2.38	638.95	5.17	9.18	1,553.02	964.68	-0.45
5/10/2023 2:10:00 AM	95.28	175.01	2.37	638.96	5.17	9.18	1,553.05	964.72	-0.45
5/10/2023 2:10:00 PM	95.36	174.94	2.38	638.95	5.17	9.18	1,553.53	965.00	-0.45
5/11/2023 2:10:00 AM	95.47	175.05	2.37	638.96	5.17	9.29	1,608.81	999.43	-0.37
5/11/2023 2:10:00 PM	94.60	176.46	2.26	639.07	5.26	8.52	1,710.84	1,065.79	-0.15
5/12/2023 2:11:00 AM	94.60	176.43	2.26	639.07	5.19	8.64	1,704.36	1,059.56	-0.18
5/12/2023 2:11:00 PM	94.60	177.03	2.20	639.13	5.19	8.68	1,705.04	1,059.90	-0.21
5/13/2023 2:11:00 AM	94.60	177.41	2.16	639.17	5.19	8.72	1,706.81	1,060.99	-0.25
5/13/2023 2:11:00 PM	94.60	177.40	2.16	639.17	5.19	8.74	1,707.35	1,061.35	-0.30
5/14/2023 2:11:00 AM	94.60	177.57	2.15	639.18	5.19	8.78	1,706.92	1,061.03	-0.31
5/14/2023 2:11:00 PM	94.60	177.47	2.16	639.17	5.19	8.80	1,705.87	1,060.41	-0.32

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 2:11:00 AM	94.60	176.78	2.23	639.10	5.19	8.82	1,705.57	1,060.20	-0.33
5/15/2023 2:11:00 PM	94.60	176.02	2.30	639.03	5.19	8.83	1,706.78	1,060.94	-0.33
5/16/2023 2:11:00 AM	94.60	175.68	2.34	638.99	5.19	8.84	1,705.72	1,060.29	-0.33
5/16/2023 2:11:00 PM	94.60	175.99	2.31	639.02	5.19	8.88	1,702.85	1,058.55	-0.34
5/17/2023 2:11:00 AM	94.60	176.18	2.29	639.04	5.19	8.91	1,701.37	1,057.64	-0.34
5/17/2023 2:11:00 PM	94.60	176.04	2.30	639.03	5.19	8.92	1,702.53	1,058.36	-0.34
5/18/2023 2:11:00 AM	94.60	176.71	2.23	639.10	5.19	8.95	1,699.60	1,056.54	-0.34
5/18/2023 2:11:00 PM	94.60	176.55	2.25	639.08	5.19	8.96	1,700.24	1,056.92	-0.35
5/19/2023 2:11:00 AM	94.60	176.27	2.28	639.05	5.19	8.96	1,701.80	1,057.85	-0.35
5/19/2023 2:11:00 PM	94.60	175.66	2.34	638.99	5.19	8.97	1,702.89	1,058.59	-0.35
5/20/2023 2:11:00 AM	94.60	176.14	2.29	639.04	5.19	9.01	1,701.45	1,057.72	-0.35
5/20/2023 2:11:00 PM	94.60	176.14	2.29	639.04	5.19	9.03	1,703.76	1,059.09	-0.36
5/21/2023 2:11:00 AM	94.60	175.99	2.31	639.02	5.19	9.04	1,706.14	1,060.52	-0.36
5/21/2023 2:11:00 PM	94.60	175.38	2.37	638.96	5.19	9.04	1,707.71	1,061.42	-0.36
5/22/2023 2:11:00 AM	94.60	175.27	2.38	638.95	5.19	9.05	1,709.76	1,062.68	-0.36
5/22/2023 2:11:00 PM	94.60	175.17	2.39	638.94	5.19	9.07	1,709.40	1,062.44	-0.37
5/23/2023 2:11:00 AM	94.60	175.38	2.37	638.96	5.19	9.07	1,710.47	1,063.13	-0.37
5/23/2023 2:11:00 PM	94.60	175.24	2.38	638.95	5.19	9.11	1,706.17	1,060.47	-0.38
5/24/2023 2:11:00 AM	94.60	175.93	2.31	639.02	5.19	9.13	1,704.49	1,059.41	-0.38
5/24/2023 2:11:00 PM	94.60	175.87	2.32	639.01	5.19	9.14	1,707.61	1,061.35	-0.39
5/25/2023 2:11:00 AM	94.60	175.98	2.31	639.02	5.19	9.17	1,712.41	1,064.35	-0.39
5/25/2023 2:11:00 PM	94.60	176.09	2.30	639.03	5.19	9.18	1,721.45	1,069.97	-0.40
5/26/2023 2:11:00 AM	94.60	176.37	2.27	639.06	5.18	9.19	1,743.58	1,083.65	-0.41
5/26/2023 2:11:00 PM	94.60	176.01	2.30	639.03	5.19	9.19	1,763.15	1,095.86	-0.41
5/27/2023 2:11:00 AM	94.60	175.88	2.32	639.01	5.19	9.21	1,769.11	1,099.56	-0.42
5/27/2023 2:11:00 PM	94.60	175.54	2.35	638.98	5.19	9.21	1,770.68	1,100.57	-0.43
5/28/2023 2:11:00 AM	94.60	175.22	2.39	638.94	5.19	9.22	1,771.24	1,100.90	-0.44
5/28/2023 2:11:00 PM	94.60	175.20	2.39	638.94	5.19	9.23	1,771.44	1,100.99	-0.44
5/29/2023 2:11:00 AM	94.60	175.29	2.38	638.95	5.19	9.24	1,771.65	1,101.13	-0.45
5/29/2023 2:11:00 PM	94.60	174.95	2.41	638.92	5.18	9.24	1,771.93	1,101.30	-0.45
5/30/2023 2:11:00 AM	94.60	175.47	2.36	638.97	5.19	9.25	1,769.97	1,100.10	-0.45
5/30/2023 2:11:00 PM	94.60	174.97	2.41	638.92	5.18	9.25	1,770.84	1,100.62	-0.45
5/31/2023 2:11:00 AM	94.60	175.44	2.36	638.97	5.18	9.25	1,769.77	1,099.94	-0.45
5/31/2023 2:11:00 PM	94.60	174.99	2.41	638.92	5.18	9.26	1,769.00	1,099.44	-0.46
6/1/2023 2:11:00 AM	94.60	175.36	2.37	638.96	5.19	9.26	1,765.86	1,097.56	-0.46
6/1/2023 2:11:00 PM	94.60	175.78	2.33	639.00	5.18	9.25	1,762.94	1,095.70	-0.46
6/2/2023 2:11:00 AM	94.60	175.72	2.33	639.00	5.18	9.25	1,762.56	1,095.46	-0.46
6/2/2023 2:11:00 PM	94.60	176.12	2.29	639.04	5.18	9.25	1,760.66	1,094.26	-0.46
6/3/2023 2:11:00 AM	94.60	176.56	2.25	639.08	5.18	9.25	1,759.73	1,093.67	-0.46
6/3/2023 2:11:00 PM	94.60	176.00	2.31	639.02	5.18	9.25	1,758.45	1,092.92	-0.46
6/4/2023 2:11:00 AM	94.60	175.96	2.31	639.02	5.18	9.25	1,758.42	1,092.90	-0.46
6/4/2023 2:11:00 PM	94.60	175.64	2.34	638.99	5.18	9.25	1,758.02	1,092.64	-0.46
6/5/2023 2:11:00 AM	94.60	175.70	2.34	638.99	5.18	9.26	1,757.18	1,092.11	-0.46
6/5/2023 2:11:00 PM	94.60	175.55	2.35	638.98	5.19	9.26	1,756.07	1,091.46	-0.46
6/6/2023 2:11:00 AM	94.60	175.79	2.33	639.00	5.18	9.26	1,753.10	1,089.58	-0.46
6/6/2023 2:11:00 PM	94.60	175.93	2.31	639.02	5.18	9.26	1,752.41	1,089.16	-0.46
6/7/2023 2:11:00 AM	94.60	175.36	2.37	638.96	5.19	9.26	1,753.00	1,089.55	-0.46
6/7/2023 2:11:00 PM	94.60	175.10	2.40	638.93	5.18	9.26	1,751.87	1,088.82	-0.46
6/8/2023 2:11:00 AM	94.60	175.41	2.37	638.96	5.18	9.26	1,749.56	1,087.39	-0.46
6/8/2023 2:11:00 PM	94.60	175.59	2.35	638.98	5.18	9.25	1,747.31	1,085.96	-0.46
6/9/2023 2:11:00 AM	94.60	175.74	2.33	639.00	5.18	9.25	1,746.33	1,085.38	-0.46
6/9/2023 2:11:00 PM	94.60	175.59	2.35	638.98	5.18	9.25	1,746.15	1,085.26	-0.46
6/10/2023 2:11:00 AM	94.60	175.47	2.36	638.97	5.18	9.25	1,745.15	1,084.64	-0.46
6/10/2023 2:11:00 PM	94.60	175.20	2.39	638.94	5.18	9.25	1,745.40	1,084.75	-0.46
6/11/2023 2:11:00 AM	94.60	174.69	2.44	638.89	5.18	9.25	1,744.69	1,084.35	-0.46
6/11/2023 2:11:00 PM	94.60	174.86	2.42	638.91	5.18	9.25	1,742.32	1,082.87	-0.46
6/12/2023 2:11:00 AM	94.60	175.39	2.37	638.96	5.18	9.24	1,740.97	1,082.02	-0.46
6/12/2023 2:11:00 PM	94.60	175.15	2.39	638.94	5.18	9.24	1,740.72	1,081.89	-0.46
6/13/2023 2:11:00 AM	94.60	175.12	2.40	638.93	5.18	9.24	1,741.54	1,082.35	-0.46
6/13/2023 2:11:00 PM	94.60	174.38	2.47	638.86	5.18	9.25	1,742.39	1,082.87	-0.46
6/14/2023 2:11:00 AM	94.60	174.02	2.51	638.82	5.18	9.25	1,742.40	1,082.88	-0.46
6/14/2023 2:11:00 PM	94.60	174.06	2.50	638.83	5.18	9.26	1,741.37	1,082.26	-0.46
6/15/2023 2:11:00 AM	94.60	174.63	2.45	638.88	5.18	9.22	1,733.86	1,077.53	-0.46
6/15/2023 2:11:00 PM	94.60	175.42	2.36	638.97	5.18	9.18	1,729.70	1,074.91	-0.46
6/16/2023 2:11:00 AM	94.60	175.63	2.34	638.99	5.18	9.18	1,729.21	1,074.53	-0.45
6/16/2023 2:11:00 PM	94.60	174.79	2.43	638.90	5.18	9.18	1,729.58	1,074.76	-0.45
6/17/2023 2:11:00 AM	94.60	174.78	2.43	638.90	5.18	9.19	1,729.80	1,075.01	-0.45
6/17/2023 2:11:00 PM	94.60	174.95	2.41	638.92	5.18	9.20	1,729.96	1,075.11	-0.45
6/18/2023 2:11:00 AM	94.60	174.66	2.44	638.89	5.18	9.20	1,730.00	1,075.15	-0.46
6/18/2023 2:11:00 PM	94.60	174.47	2.46	638.87	5.18	9.21	1,730.09	1,075.23	-0.46

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 2:11:00 AM	94.60	174.40	2.47	638.86	5.18	9.20	1,735.12	1,078.38	-0.45
6/19/2023 2:11:00 PM	94.60	174.51	2.46	638.87	5.18	9.24	1,737.65	1,079.99	-0.45
6/20/2023 2:11:00 AM	94.60	175.42	2.36	638.97	5.19	9.27	1,736.52	1,079.32	-0.46
6/20/2023 2:11:00 PM	94.60	176.04	2.30	639.03	5.18	9.26	1,734.58	1,078.07	-0.46
6/21/2023 2:11:00 AM	94.60	176.30	2.27	639.06	5.18	9.24	1,732.98	1,077.05	-0.46
6/21/2023 2:11:00 PM	94.60	176.12	2.29	639.04	5.18	9.23	1,732.30	1,076.59	-0.46
6/22/2023 2:11:00 AM	94.60	176.86	2.22	639.11	5.18	9.23	1,731.45	1,076.05	-0.46
6/22/2023 2:11:00 PM	94.60	176.09	2.30	639.03	5.18	9.23	1,730.27	1,075.34	-0.46
6/23/2023 2:11:00 AM	94.60	176.09	2.30	639.03	5.18	9.23	1,729.91	1,075.02	-0.46
6/23/2023 2:11:00 PM	94.60	175.87	2.32	639.01	5.18	9.22	1,729.41	1,074.82	-0.46
6/24/2023 2:11:00 AM	94.60	175.79	2.33	639.00	5.18	9.22	1,728.91	1,074.52	-0.46
6/24/2023 2:11:00 PM	94.60	175.98	2.31	639.02	5.18	9.22	1,728.68	1,074.38	-0.46
6/25/2023 2:11:00 AM	94.60	175.86	2.32	639.01	5.18	9.22	1,728.41	1,074.15	-0.46
6/25/2023 2:11:00 PM	94.60	176.13	2.29	639.04	5.18	9.22	1,727.72	1,073.72	-0.46
6/26/2023 2:11:00 AM	94.60	175.60	2.35	638.98	5.18	9.22	1,727.97	1,073.86	-0.46
6/26/2023 2:11:00 PM	94.60	175.84	2.32	639.01	5.18	9.22	1,727.53	1,073.68	-0.46
6/27/2023 2:11:00 AM	94.60	175.67	2.34	638.99	5.18	9.23	1,727.54	1,073.64	-0.46
6/27/2023 2:11:00 PM	94.60	175.40	2.37	638.96	5.18	9.23	1,727.08	1,073.32	-0.46
6/28/2023 2:11:00 AM	94.60	175.74	2.33	639.00	5.18	9.23	1,726.82	1,073.16	-0.46
6/28/2023 2:12:00 PM	94.60	175.71	2.34	638.99	5.18	9.22	1,726.49	1,072.90	-0.46
6/29/2023 2:12:00 AM	94.60	175.88	2.32	639.01	5.18	9.23	1,726.48	1,072.95	-0.46
6/29/2023 2:12:00 PM	94.60	175.78	2.33	639.00	5.18	9.22	1,726.12	1,072.76	-0.46
6/30/2023 2:12:00 AM	94.60	176.01	2.30	639.03	5.18	9.23	1,725.93	1,072.61	-0.46
6/30/2023 2:12:00 PM	94.60	175.43	2.36	638.97	5.18	9.23	1,725.91	1,072.59	-0.46
7/1/2023 2:12:00 AM	94.60	175.39	2.37	638.96	5.18	9.23	1,725.64	1,072.43	-0.46
7/1/2023 2:12:00 PM	94.60	175.78	2.33	639.00	5.18	9.23	1,725.78	1,072.56	-0.46
7/2/2023 2:12:00 AM	94.60	175.55	2.35	638.98	5.19	9.23	1,726.30	1,072.97	-0.46
7/2/2023 2:12:00 PM	94.60	175.81	2.33	639.00	5.19	9.24	1,726.04	1,072.79	-0.46
7/3/2023 2:12:00 AM	94.60	175.61	2.35	638.98	5.18	9.25	1,726.10	1,072.72	-0.46
7/3/2023 2:12:00 PM	94.60	176.38	2.27	639.06	5.18	9.24	1,725.19	1,072.17	-0.46
7/4/2023 2:12:00 AM	94.60	176.53	2.25	639.08	5.18	9.24	1,725.13	1,072.16	-0.46
7/4/2023 2:12:00 PM	94.60	176.70	2.23	639.10	5.19	9.24	1,725.42	1,072.42	-0.46
7/5/2023 2:12:00 AM	94.60	175.98	2.31	639.02	5.18	9.25	1,725.05	1,072.09	-0.46
7/5/2023 2:12:00 PM	94.60	176.44	2.26	639.07	5.18	9.24	1,724.73	1,071.81	-0.46
7/6/2023 2:12:00 AM	94.60	175.60	2.35	638.98	5.18	9.23	1,724.46	1,071.71	-0.46
7/6/2023 2:12:00 PM	94.60	176.16	2.29	639.04	5.19	9.24	1,724.33	1,071.73	-0.46
7/7/2023 2:12:00 AM	94.60	176.73	2.23	639.10	5.19	9.24	1,724.27	1,071.73	-0.46
7/7/2023 2:12:00 PM	94.60	176.44	2.26	639.07	5.18	9.25	1,723.96	1,071.45	-0.46
7/8/2023 2:12:00 AM	94.60	176.26	2.28	639.05	5.18	9.24	1,724.11	1,071.54	-0.46
7/8/2023 2:12:00 PM	94.60	175.65	2.34	638.99	5.19	9.24	1,723.24	1,071.07	-0.46
7/9/2023 2:12:00 AM	94.60	175.49	2.36	638.97	5.19	9.25	1,723.03	1,070.94	-0.46
7/9/2023 2:12:00 PM	94.60	175.55	2.35	638.98	5.18	9.25	1,722.97	1,070.85	-0.46
7/10/2023 2:12:00 AM	94.60	175.50	2.36	638.97	5.18	9.25	1,722.45	1,070.51	-0.46
7/10/2023 2:12:00 PM	94.60	175.96	2.31	639.02	5.18	9.24	1,722.11	1,070.29	-0.46
7/11/2023 2:12:00 AM	94.60	175.64	2.34	638.99	5.18	9.25	1,722.21	1,070.40	-0.46
7/11/2023 2:12:00 PM	94.60	176.03	2.30	639.03	5.18	9.25	1,721.79	1,070.13	-0.46
7/12/2023 2:12:00 AM	94.60	176.24	2.28	639.05	5.18	9.25	1,721.89	1,070.19	-0.46
7/12/2023 2:12:00 PM	94.60	175.90	2.32	639.01	5.19	9.25	1,721.62	1,070.10	-0.46
7/13/2023 2:12:00 AM	94.60	175.89	2.32	639.01	5.19	9.26	1,721.96	1,070.28	-0.47
7/13/2023 2:12:00 PM	94.60	175.86	2.32	639.01	5.18	9.25	1,721.37	1,069.82	-0.47
7/14/2023 2:12:00 AM	94.60	175.29	2.38	638.95	5.18	9.25	1,720.63	1,069.36	-0.46
7/14/2023 2:12:00 PM	94.60	176.60	2.24	639.09	5.18	9.24	1,720.51	1,069.33	-0.46
7/15/2023 2:12:00 AM	94.60	176.22	2.28	639.05	5.19	9.25	1,720.74	1,069.53	-0.46
7/15/2023 2:12:00 PM	94.60	175.88	2.32	639.01	5.19	9.25	1,720.57	1,069.39	-0.46
7/16/2023 2:12:00 AM	94.60	176.13	2.29	639.04	5.18	9.25	1,720.17	1,069.10	-0.46
7/16/2023 2:12:00 PM	94.60	175.83	2.32	639.01	5.18	9.25	1,719.93	1,068.95	-0.46
7/17/2023 2:12:00 AM	94.60	175.61	2.34	638.99	5.19	9.25	1,719.93	1,069.02	-0.46
7/17/2023 2:12:00 PM	94.60	175.17	2.39	638.94	5.19	9.26	1,719.45	1,068.76	-0.46
7/18/2023 2:12:00 AM	94.60	175.41	2.37	638.96	5.19	9.26	1,719.37	1,068.80	-0.47
7/18/2023 2:12:00 PM	94.60	176.05	2.30	639.03	5.18	9.25	1,718.18	1,067.89	-0.46
7/19/2023 2:12:00 AM	94.60	176.45	2.26	639.07	5.18	9.25	1,718.11	1,067.84	-0.46
7/19/2023 2:12:00 PM	94.60	177.17	2.19	639.14	5.18	9.25	1,717.93	1,067.73	-0.46
7/20/2023 2:12:00 AM	94.60	176.78	2.23	639.10	5.19	9.25	1,717.49	1,067.54	-0.46
7/20/2023 2:12:00 PM	94.60	177.16	2.19	639.14	5.19	9.25	1,717.66	1,067.76	-0.46
7/21/2023 2:12:00 AM	94.60	177.25	2.18	639.15	5.19	9.26	1,717.53	1,067.57	-0.46
7/21/2023 2:12:00 PM	94.60	176.97	2.21	639.12	5.19	9.25	1,717.16	1,067.26	-0.46
7/22/2023 2:12:00 AM	94.60	176.81	2.22	639.11	5.19	9.25	1,717.16	1,067.27	-0.46
7/22/2023 2:12:00 PM	94.60	176.29	2.28	639.05	5.19	9.25	1,717.43	1,067.50	-0.47
7/23/2023 2:12:00 AM	94.60	176.79	2.23	639.10	5.19	9.26	1,717.19	1,067.42	-0.47
7/23/2023 2:12:00 PM	94.60	176.60	2.24	639.09	5.19	9.26	1,717.24	1,067.44	-0.47

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 2:12:00 AM	94.60	176.84	2.22	639.11	5.19	9.26	1,716.32	1,066.80	-0.47
7/24/2023 2:12:00 PM	94.60	175.99	2.31	639.02	5.19	9.25	1,716.09	1,066.70	-0.47
7/25/2023 2:12:00 AM	94.60	176.45	2.26	639.07	5.19	9.26	1,716.03	1,066.72	-0.47
7/25/2023 2:12:00 PM	94.60	176.12	2.29	639.04	5.19	9.26	1,716.10	1,066.70	-0.47
7/26/2023 2:12:00 AM	94.60	176.07	2.30	639.03	5.18	9.25	1,715.54	1,066.24	-0.47
7/26/2023 2:12:00 PM	94.60	175.73	2.33	639.00	5.19	9.25	1,715.23	1,066.12	-0.47
7/27/2023 2:12:00 AM	94.60	176.54	2.25	639.08	5.19	9.25	1,714.99	1,066.09	-0.46
7/27/2023 2:12:00 PM	94.60	177.11	2.19	639.14	5.19	9.26	1,715.14	1,066.13	-0.46
7/28/2023 2:12:00 AM	94.60	177.50	2.15	639.18	5.19	9.26	1,714.84	1,065.91	-0.46
7/28/2023 2:12:00 PM	94.60	177.12	2.19	639.14	5.19	9.26	1,714.43	1,065.60	-0.46
7/29/2023 2:12:00 AM	94.60	178.40	2.06	639.27	5.19	9.26	1,714.46	1,065.72	-0.46
7/29/2023 2:12:00 PM	94.60	177.09	2.19	639.14	5.19	9.26	1,714.26	1,065.63	-0.47
7/30/2023 2:12:00 AM	94.60	177.24	2.18	639.15	5.19	9.26	1,714.16	1,065.58	-0.47
7/30/2023 2:12:00 PM	94.60	176.89	2.22	639.11	5.19	9.26	1,713.97	1,065.50	-0.47
7/31/2023 2:12:00 AM	94.60	177.20	2.18	639.15	5.19	9.26	1,713.78	1,065.25	-0.47
7/31/2023 2:12:00 PM	94.60	176.86	2.22	639.11	5.19	9.26	1,713.59	1,065.20	-0.47
8/1/2023 2:12:00 AM	94.60	176.96	2.21	639.12	5.19	9.26	1,713.34	1,065.11	-0.47
8/1/2023 2:12:00 PM	94.60	176.77	2.23	639.10	5.19	9.27	1,712.99	1,064.81	-0.47
8/2/2023 2:12:00 AM	94.60	176.49	2.26	639.07	5.19	9.26	1,712.71	1,064.65	-0.47
8/2/2023 2:12:00 PM	94.60	176.69	2.24	639.09	5.19	9.26	1,712.16	1,064.35	-0.47
8/3/2023 2:12:00 AM	94.60	176.57	2.25	639.08	5.19	9.26	1,712.06	1,064.35	-0.47
8/3/2023 2:12:00 PM	94.60	176.98	2.21	639.12	5.19	9.27	1,711.70	1,064.14	-0.47
8/4/2023 2:12:00 AM	94.60	177.76	2.13	639.20	5.19	9.26	1,711.51	1,063.84	-0.47
8/4/2023 2:12:00 PM	94.60	177.41	2.16	639.17	5.19	9.26	1,711.43	1,063.95	-0.47
8/5/2023 2:12:00 AM	94.60	177.20	2.18	639.15	5.19	9.26	1,710.89	1,063.67	-0.47
8/5/2023 2:12:00 PM	94.60	177.58	2.14	639.19	5.19	9.26	1,710.86	1,063.53	-0.47
8/6/2023 2:12:00 AM	94.60	177.63	2.14	639.19	5.19	9.26	1,710.49	1,063.36	-0.47
8/6/2023 2:12:00 PM	94.60	177.32	2.17	639.16	5.19	9.26	1,710.57	1,063.42	-0.47
8/7/2023 2:12:00 AM	94.60	177.18	2.19	639.14	5.19	9.26	1,710.19	1,063.20	-0.47
8/7/2023 2:12:00 PM	94.60	177.18	2.19	639.14	5.19	9.26	1,710.28	1,063.25	-0.47
8/8/2023 2:12:00 AM	94.60	176.54	2.25	639.08	5.19	9.27	1,710.06	1,063.13	-0.47
8/8/2023 2:12:00 PM	94.60	177.04	2.20	639.13	5.19	9.27	1,709.75	1,062.85	-0.47
8/9/2023 2:12:00 AM	94.60	176.42	2.26	639.07	5.19	9.26	1,709.47	1,062.66	-0.47
8/9/2023 2:12:00 PM	93.65	175.94	2.40	638.93	5.34	9.08	1,691.35	1,056.10	-0.26
8/10/2023 2:12:00 AM	93.65	175.59	2.43	638.90	5.22	9.12	1,680.19	1,045.48	-0.30
8/10/2023 2:12:00 PM	93.65	175.72	2.42	638.91	5.22	9.13	1,679.56	1,044.88	-0.32
8/11/2023 2:12:00 AM	93.65	176.31	2.36	638.97	5.22	9.15	1,673.67	1,041.27	-0.33
8/11/2023 2:12:00 PM	93.65	176.74	2.31	639.02	5.22	9.17	1,663.64	1,034.99	-0.34
8/12/2023 2:12:00 AM	93.65	177.11	2.28	639.05	5.21	9.17	1,663.42	1,034.81	-0.35
8/12/2023 2:12:00 PM	93.65	177.34	2.25	639.08	5.21	9.17	1,662.06	1,033.95	-0.35
8/13/2023 2:12:00 AM	93.65	177.85	2.20	639.13	5.21	9.17	1,660.03	1,032.66	-0.36
8/13/2023 2:12:00 PM	93.65	177.56	2.23	639.10	5.21	9.17	1,659.03	1,032.01	-0.36
8/14/2023 2:12:00 AM	93.65	177.11	2.28	639.05	5.21	9.17	1,657.42	1,031.05	-0.36
8/14/2023 2:12:00 PM	93.65	177.28	2.26	639.07	5.21	9.18	1,655.71	1,029.97	-0.36
8/15/2023 2:13:00 AM	93.65	177.24	2.26	639.07	5.22	9.18	1,653.62	1,028.71	-0.37
8/15/2023 2:13:00 PM	93.65	176.59	2.33	639.00	5.21	9.18	1,654.12	1,028.94	-0.37
8/16/2023 2:13:00 AM	93.65	176.81	2.31	639.02	5.21	9.18	1,650.53	1,026.73	-0.37
8/16/2023 2:13:00 PM	93.65	177.08	2.28	639.05	5.21	9.19	1,647.32	1,024.74	-0.38
8/17/2023 2:13:00 AM	93.65	176.84	2.30	639.03	5.21	9.19	1,646.91	1,024.43	-0.38
8/17/2023 2:13:00 PM	93.65	175.90	2.40	638.93	5.21	9.19	1,646.33	1,024.07	-0.38
8/18/2023 2:13:00 AM	93.65	176.06	2.38	638.95	5.21	9.19	1,645.11	1,023.34	-0.38
8/18/2023 2:13:00 PM	93.65	176.15	2.37	638.96	5.21	9.19	1,637.80	1,018.80	-0.39
8/19/2023 2:13:00 AM	93.65	177.14	2.27	639.06	5.21	9.20	1,631.22	1,014.71	-0.40
8/19/2023 2:13:00 PM	93.65	177.85	2.20	639.13	5.21	9.20	1,629.03	1,013.28	-0.40
8/20/2023 2:13:00 AM	93.65	177.97	2.19	639.14	5.21	9.20	1,627.40	1,012.28	-0.41
8/20/2023 2:13:00 PM	93.65	177.83	2.20	639.13	5.21	9.20	1,626.31	1,011.54	-0.41
8/21/2023 2:13:00 AM	93.65	177.59	2.23	639.10	5.21	9.21	1,624.68	1,010.51	-0.42
8/21/2023 2:13:00 PM	93.65	177.75	2.21	639.12	5.21	9.21	1,623.60	1,009.81	-0.42
8/22/2023 2:13:00 AM	93.65	177.23	2.26	639.07	5.21	9.21	1,622.25	1,009.00	-0.43
8/22/2023 2:13:00 PM	93.65	177.19	2.27	639.06	5.21	9.21	1,621.32	1,008.43	-0.43
8/23/2023 2:13:00 AM	93.65	177.42	2.24	639.09	5.21	9.21	1,620.64	1,007.97	-0.43
8/23/2023 2:13:00 PM	93.65	176.68	2.32	639.01	5.21	9.21	1,620.33	1,007.82	-0.43
8/24/2023 2:13:00 AM	93.65	176.64	2.32	639.01	5.21	9.21	1,618.48	1,006.66	-0.44
8/24/2023 2:13:00 PM	93.65	177.55	2.23	639.10	5.21	9.21	1,614.68	1,004.30	-0.44
8/25/2023 2:13:00 AM	93.65	177.78	2.21	639.12	5.21	9.21	1,613.65	1,003.62	-0.44
8/25/2023 2:13:00 PM	93.65	178.05	2.18	639.15	5.21	9.21	1,613.60	1,003.62	-0.44
8/26/2023 2:13:00 AM	93.65	177.29	2.26	639.07	5.21	9.21	1,613.50	1,003.55	-0.44
8/26/2023 2:13:00 PM	93.65	177.43	2.24	639.09	5.21	9.21	1,612.97	1,003.21	-0.44
8/27/2023 2:13:00 AM	93.65	177.32	2.26	639.07	5.21	9.21	1,612.14	1,002.73	-0.44
8/27/2023 2:13:00 PM	93.65	177.35	2.25	639.08	5.21	9.20	1,610.70	1,001.78	-0.44

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
8/28/2023 2:13:00 AM	93.65	177.51	2.24	639.09	5.21	9.20	1,610.85	1,001.88	-0.44
9/22/2023 9:38:00 AM	93.65	178.09	2.18	639.15	5.14	9.11	1,603.17	994.91	-0.44
9/22/2023 9:38:00 PM	93.65	178.40	2.14	639.19	5.19	9.20	1,601.12	995.21	-0.45
9/23/2023 9:38:00 AM	93.65	178.02	2.18	639.15	5.19	9.20	1,601.37	995.43	-0.44
9/23/2023 9:38:00 PM	93.65	177.66	2.22	639.11	5.19	9.20	1,601.36	995.46	-0.44
9/24/2023 9:38:00 AM	93.65	177.80	2.21	639.12	5.19	9.19	1,597.50	993.18	-0.44
9/24/2023 9:38:00 PM	93.65	178.13	2.17	639.16	5.19	9.19	1,591.41	989.37	-0.43
9/25/2023 9:38:00 AM	93.65	178.30	2.16	639.17	5.19	9.18	1,588.31	987.47	-0.43
9/25/2023 9:38:00 PM	93.65	177.64	2.22	639.11	5.19	9.18	1,588.05	987.30	-0.43
9/26/2023 9:38:00 AM	93.65	177.66	2.22	639.11	5.20	9.19	1,586.87	986.62	-0.44
9/26/2023 9:38:00 PM	93.65	177.75	2.21	639.12	5.20	9.19	1,586.37	986.31	-0.43
9/27/2023 9:38:00 AM	93.65	177.61	2.23	639.10	5.20	9.18	1,585.58	985.86	-0.43
9/27/2023 9:38:00 PM	93.65	177.67	2.22	639.11	5.20	9.18	1,585.11	985.57	-0.43
9/28/2023 9:38:00 AM	93.65	177.84	2.20	639.13	5.20	9.18	1,584.88	985.44	-0.43
9/28/2023 9:38:00 PM	93.65	177.93	2.19	639.14	5.20	9.18	1,584.66	985.28	-0.43
9/29/2023 9:38:00 AM	93.65	178.31	2.15	639.18	5.20	9.18	1,584.36	985.13	-0.43
9/29/2023 9:38:00 PM	93.65	178.66	2.12	639.21	5.20	9.18	1,584.21	985.03	-0.43
9/30/2023 9:38:00 AM	93.65	179.33	2.05	639.28	5.20	9.18	1,583.15	984.40	-0.43
9/30/2023 9:38:00 PM	93.65	179.22	2.06	639.27	5.20	9.18	1,583.36	984.55	-0.43
10/1/2023 9:38:00 AM	93.65	179.06	2.08	639.25	5.20	9.18	1,583.72	984.73	-0.43
10/1/2023 9:38:00 PM	93.65	178.41	2.14	639.19	5.20	9.18	1,584.02	984.95	-0.43
10/2/2023 9:38:00 AM	93.65	178.09	2.18	639.15	5.20	9.19	1,584.67	985.37	-0.43
10/2/2023 9:38:00 PM	93.65	177.96	2.19	639.14	5.20	9.19	1,584.58	985.32	-0.43
10/3/2023 9:38:00 AM	93.65	178.07	2.18	639.15	5.20	9.19	1,584.29	985.18	-0.43
10/3/2023 9:38:00 PM	93.65	178.18	2.17	639.16	5.20	9.19	1,584.51	985.28	-0.43
10/4/2023 9:38:00 AM	93.65	177.98	2.19	639.14	5.20	9.19	1,584.89	985.53	-0.43
10/4/2023 9:38:00 PM	93.65	178.97	2.09	639.24	5.20	9.19	1,584.71	985.43	-0.43
10/5/2023 9:38:00 AM	93.65	179.29	2.06	639.27	5.20	9.18	1,584.55	985.32	-0.43
10/5/2023 9:38:00 PM	93.65	180.26	1.96	639.37	5.20	9.19	1,584.72	985.43	-0.43
10/6/2023 9:38:00 AM	93.65	179.45	2.04	639.29	5.20	9.18	1,584.84	985.57	-0.43
10/6/2023 9:38:00 PM	93.65	178.61	2.12	639.21	5.20	9.19	1,584.83	985.54	-0.44
10/7/2023 9:38:00 AM	93.65	178.79	2.11	639.22	5.20	9.19	1,584.46	985.34	-0.44
10/7/2023 9:38:00 PM	93.65	178.62	2.12	639.21	5.20	9.19	1,584.66	985.41	-0.44
10/8/2023 9:38:00 AM	93.65	178.14	2.17	639.16	5.20	9.19	1,584.76	985.52	-0.44
10/8/2023 9:38:00 PM	93.65	177.96	2.19	639.14	5.20	9.19	1,584.53	985.31	-0.44
10/9/2023 9:38:00 AM	93.65	177.64	2.22	639.11	5.20	9.19	1,584.61	985.41	-0.44
10/9/2023 9:38:00 PM	93.65	177.28	2.26	639.07	5.20	9.19	1,584.31	985.20	-0.44
10/10/2023 9:38:00 AM	93.65	177.23	2.26	639.07	5.20	9.19	1,584.87	985.56	-0.45
10/10/2023 9:38:00 PM	93.65	177.04	2.28	639.05	5.20	9.20	1,584.74	985.48	-0.45
10/11/2023 9:38:00 AM	93.65	177.80	2.21	639.12	5.20	9.20	1,584.33	985.24	-0.44
10/11/2023 9:38:00 PM	93.65	178.24	2.16	639.17	5.20	9.19	1,584.16	985.19	-0.44
10/12/2023 9:38:00 AM	93.65	179.16	2.07	639.26	5.20	9.19	1,583.91	984.97	-0.44
10/12/2023 9:38:00 PM	93.65	179.70	2.01	639.32	5.20	9.19	1,583.92	985.00	-0.44
10/13/2023 9:38:00 AM	93.65	179.65	2.02	639.31	5.20	9.19	1,583.96	985.04	-0.44
10/13/2023 9:38:00 PM	93.65	179.62	2.02	639.31	5.20	9.20	1,583.66	984.82	-0.44
10/14/2023 9:38:00 AM	93.65	179.04	2.08	639.25	5.20	9.20	1,583.88	985.00	-0.45
10/14/2023 9:38:00 PM	93.65	179.33	2.05	639.28	5.20	9.20	1,583.36	984.66	-0.45
10/15/2023 9:38:00 AM	93.65	179.24	2.06	639.27	5.20	9.20	1,583.37	984.68	-0.45
10/15/2023 9:38:00 PM	93.65	179.26	2.06	639.27	5.20	9.20	1,583.00	984.45	-0.45
10/16/2023 9:38:00 AM	93.65	179.30	2.05	639.28	5.20	9.20	1,583.00	984.44	-0.45
10/16/2023 9:38:00 PM	93.65	178.31	2.15	639.18	5.20	9.20	1,583.52	984.76	-0.45
10/17/2023 9:38:00 AM	93.65	178.31	2.15	639.18	5.20	9.20	1,583.44	984.72	-0.45
10/17/2023 9:38:00 PM	93.65	179.00	2.08	639.25	5.20	9.20	1,582.96	984.42	-0.45
10/18/2023 9:38:00 AM	93.65	178.25	2.16	639.17	5.20	9.21	1,583.18	984.58	-0.45
10/18/2023 9:38:00 PM	93.65	178.24	2.16	639.17	5.21	9.21	1,583.04	984.52	-0.45
10/19/2023 9:38:00 AM	93.65	178.32	2.15	639.18	5.20	9.21	1,582.34	984.06	-0.45
10/19/2023 9:38:00 PM	93.65	177.95	2.19	639.14	5.20	9.21	1,582.91	984.37	-0.45
10/20/2023 9:38:00 AM	93.65	178.93	2.09	639.24	5.20	9.21	1,581.54	983.55	-0.45
10/20/2023 9:38:00 PM	93.65	179.11	2.07	639.26	5.20	9.20	1,581.36	983.45	-0.45
10/21/2023 9:38:00 AM	93.65	179.63	2.02	639.31	5.21	9.21	1,581.48	983.55	-0.45
10/21/2023 9:38:00 PM	93.65	179.35	2.05	639.28	5.21	9.21	1,581.45	983.52	-0.45
10/22/2023 9:38:00 AM	93.65	179.32	2.05	639.28	5.20	9.21	1,581.18	983.34	-0.45
10/22/2023 9:38:00 PM	93.65	179.26	2.06	639.27	5.21	9.21	1,580.90	983.21	-0.45
10/23/2023 9:38:00 AM	93.65	179.65	2.02	639.31	5.21	9.21	1,580.57	982.99	-0.45
10/23/2023 9:38:00 PM	93.65	179.68	2.02	639.31	5.21	9.21	1,580.60	983.00	-0.45
10/24/2023 9:38:00 AM	93.65	180.59	1.92	639.41	5.21	9.21	1,580.37	982.89	-0.45
10/24/2023 9:38:00 PM	93.65	179.46	2.04	639.29	5.21	9.21	1,580.49	982.97	-0.45
10/25/2023 9:38:00 AM	93.65	180.37	1.94	639.39	5.21	9.21	1,580.37	982.89	-0.45
10/25/2023 9:38:00 PM	93.65	180.02	1.98	639.35	5.21	9.21	1,580.45	982.90	-0.45
10/26/2023 9:38:00 AM	93.65	180.51	1.93	639.40	5.21	9.21	1,579.96	982.65	-0.45

Table D.8 Summary of 2023 Continuous Water Quality Measurements at UL1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/26/2023 9:38:00 PM	93.65	180.27	1.95	639.38	5.21	9.21	1,579.92	982.61	-0.45
10/27/2023 9:38:00 AM	93.65	179.80	2.00	639.33	5.21	9.21	1,580.13	982.74	-0.45
10/27/2023 9:38:00 PM	93.65	179.76	2.01	639.32	5.21	9.22	1,580.16	982.76	-0.45
10/28/2023 9:38:00 AM	93.65	179.52	2.03	639.30	5.21	9.22	1,580.24	982.83	-0.45
10/28/2023 9:38:00 PM	93.65	180.27	1.96	639.37	5.21	9.22	1,579.62	982.43	-0.45
10/29/2023 9:38:00 AM	93.65	180.50	1.93	639.40	5.21	9.22	1,579.96	982.69	-0.45
10/29/2023 9:38:00 PM	93.65	179.94	1.99	639.34	5.21	9.22	1,579.80	982.59	-0.45
10/30/2023 9:38:00 AM	93.65	180.34	1.95	639.38	5.21	9.22	1,578.77	981.97	-0.45
10/30/2023 9:38:00 PM	93.65	179.65	2.02	639.31	5.21	9.22	1,579.17	982.18	-0.45
10/31/2023 9:38:00 AM	93.65	179.38	2.05	639.28	5.21	9.22	1,579.48	982.39	-0.45
10/31/2023 9:38:00 PM	93.65	179.67	2.02	639.31	5.21	9.22	1,579.05	982.14	-0.45
11/1/2023 8:38:00 AM	93.65	179.44	2.04	639.29	5.21	9.22	1,579.18	982.21	-0.45

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
[Pre-Injection] Count	1050	1050	1050	1050	1273	1229	1145	974	1273
[Pre-Injection] Min	92.27	867.57	26.20	613.41	6.19	6.70	17,741.70	11,421.84	-0.67
[Pre-Injection] Max	111.33	894.15	27.97	615.18	6.50	9.40	26,638.23	17,149.29	1.18
[Pre-Injection] Mean	96.57	884.82	27.54	613.84	6.42	8.40	22,714.21	14,821.54	-0.35
[Pre-Injection] Median	95.27	882.65	27.53	613.85	6.44	8.47	23,373.93	15,311.79	-0.41
[Pre-Injection] Standard Deviation	4.24	7.48	0.18	0.18	0.04	0.47	2,440.80	1,606.34	0.27
[2023] Count	555	555	555	555	474	555	555	555	555
[2023] Min	92.75	877.52	27.63	613.34	6.43	7.95	21,479.64	13,869.30	-0.52
[2023] Max	120.36	881.99	28.04	613.75	6.47	8.46	22,649.04	14,622.30	-0.19
[2023] Mean	98.79	879.44	27.86	613.52	6.45	8.26	22,219.51	14,345.27	-0.47
[2023] Median	95.25	879.24	27.87	613.51	6.45	8.26	21,985.11	14,195.68	-0.48
[2023] Standard Deviation	8.95	0.99	0.08	0.08	0.01	0.09	328.40	212.32	0.05
1/1/2023 9:06:00 AM	94.80	878.27	27.94	613.44	6.44	8.39	22,630.76	14,608.22	-0.48
1/1/2023 9:06:00 PM	94.85	878.45	27.92	613.46	6.44	8.34	22,633.08	14,610.34	-0.47
1/2/2023 9:06:00 AM	94.63	878.51	27.91	613.47	6.44	8.41	22,634.83	14,612.14	-0.48
1/2/2023 9:06:00 PM	94.33	878.66	27.90	613.48	6.44	8.39	22,633.91	14,611.34	-0.48
1/3/2023 9:06:00 AM	94.11	878.82	27.88	613.50	6.44	8.39	22,638.50	14,613.86	-0.48
1/3/2023 9:06:00 PM	94.36	878.48	27.92	613.46	6.44	8.36	22,632.97	14,610.42	-0.47
1/4/2023 9:06:00 AM	94.98	878.19	27.95	613.43	6.44	8.36	22,632.00	14,609.79	-0.48
1/4/2023 9:06:00 PM	95.24	878.52	27.91	613.47	6.44	8.35	22,633.14	14,610.69	-0.48
1/5/2023 9:06:00 AM	95.15	878.49	27.92	613.46	6.44	8.38	22,634.97	14,611.97	-0.48
1/5/2023 9:06:00 PM	94.61	878.41	27.92	613.46	6.44	8.39	22,633.62	14,611.48	-0.49
1/6/2023 9:06:00 AM	94.54	878.81	27.88	613.50	6.44	8.36	22,637.83	14,613.84	-0.48
1/6/2023 9:06:00 PM	94.81	878.46	27.92	613.46	6.44	8.35	22,634.62	14,611.32	-0.48
1/7/2023 9:06:00 AM	94.94	878.43	27.92	613.46	6.44	8.35	22,634.26	14,610.60	-0.48
1/7/2023 9:06:00 PM	94.93	878.82	27.88	613.50	6.44	8.35	22,638.06	14,613.37	-0.48
1/8/2023 9:06:00 AM	94.40	878.91	27.87	613.51	6.44	8.39	22,641.15	14,615.61	-0.48
1/8/2023 9:06:00 PM	94.27	878.73	27.89	613.49	6.44	8.36	22,641.64	14,616.45	-0.48
1/9/2023 9:06:00 AM	94.31	878.97	27.87	613.51	6.44	8.35	22,638.98	14,614.39	-0.48
1/9/2023 9:06:00 PM	94.21	878.84	27.88	613.50	6.44	8.35	22,639.21	14,614.77	-0.48
1/10/2023 9:06:00 AM	94.45	878.82	27.88	613.50	6.44	8.35	22,640.13	14,614.81	-0.48
1/10/2023 9:06:00 PM	94.85	878.46	27.92	613.46	6.44	8.34	22,639.71	14,614.62	-0.48
1/11/2023 9:06:00 AM	95.44	878.18	27.95	613.43	6.44	8.33	22,631.85	14,609.67	-0.47
1/11/2023 9:06:00 PM	95.66	878.17	27.95	613.43	6.44	8.32	22,632.73	14,609.70	-0.47
1/12/2023 9:06:00 AM	95.56	878.32	27.93	613.45	6.44	8.36	22,637.20	14,613.44	-0.48
1/12/2023 9:06:00 PM	95.04	878.65	27.90	613.48	6.44	8.39	22,641.50	14,616.26	-0.48
1/13/2023 9:06:00 AM	94.76	878.89	27.88	613.50	6.44	8.37	22,644.61	14,618.23	-0.48
1/13/2023 9:06:00 PM	94.19	878.77	27.89	613.49	6.45	8.38	22,644.30	14,618.97	-0.48
1/14/2023 9:06:00 AM	93.94	879.06	27.86	613.52	6.44	8.39	22,642.76	14,617.16	-0.49
1/14/2023 9:06:00 PM	93.88	878.95	27.87	613.51	6.44	8.35	22,644.84	14,616.96	-0.48
1/15/2023 9:06:00 AM	93.96	879.25	27.84	613.54	6.44	8.37	22,641.46	14,615.27	-0.48
1/15/2023 9:06:00 PM	94.04	878.70	27.90	613.48	6.44	8.35	22,640.60	14,614.30	-0.48
1/16/2023 9:06:00 AM	94.23	878.62	27.90	613.48	6.44	8.36	22,641.67	14,615.14	-0.47
1/16/2023 9:06:00 PM	94.35	878.40	27.93	613.45	6.44	8.34	22,636.57	14,611.93	-0.47
1/17/2023 9:06:00 AM	94.54	878.74	27.89	613.49	6.44	8.35	22,641.17	14,615.04	-0.47
1/17/2023 9:06:00 PM	94.60	878.49	27.92	613.46	6.44	8.34	22,639.87	14,613.77	-0.47
1/18/2023 9:06:00 AM	94.56	878.82	27.88	613.50	6.44	8.36	22,641.27	14,615.42	-0.48
1/18/2023 9:06:00 PM	94.46	878.38	27.93	613.45	6.44	8.35	22,641.39	14,616.33	-0.48
1/19/2023 9:06:00 AM	95.11	878.22	27.94	613.44	6.44	8.36	22,637.75	14,612.32	-0.48
1/19/2023 9:06:00 PM	95.41	878.18	27.95	613.43	6.44	8.38	22,639.42	14,614.72	-0.48
1/20/2023 9:06:00 AM	95.38	878.16	27.95	613.43	6.44	8.37	22,639.12	14,614.51	-0.49
1/20/2023 9:06:00 PM	95.34	878.33	27.93	613.45	6.44	8.37	22,640.83	14,614.68	-0.49
1/21/2023 9:06:00 AM	95.01	878.57	27.91	613.47	6.44	8.40	22,642.09	14,615.92	-0.49
1/21/2023 9:06:00 PM	94.33	878.83	27.88	613.50	6.44	8.38	22,643.06	14,617.87	-0.49
1/22/2023 9:06:00 AM	94.99	878.49	27.92	613.46	6.44	8.37	22,639.62	14,615.13	-0.49
1/22/2023 9:06:00 PM	95.60	878.12	27.95	613.43	6.44	8.38	22,638.04	14,612.72	-0.49
1/23/2023 9:06:00 AM	94.71	878.61	27.90	613.48	6.44	8.41	22,642.63	14,615.83	-0.49
1/23/2023 9:06:00 PM	94.77	878.46	27.92	613.46	6.45	8.38	22,638.95	14,615.75	-0.49
1/24/2023 9:06:00 AM	95.14	878.12	27.95	613.43	6.44	8.34	22,640.36	14,614.25	-0.48
1/24/2023 9:06:00 PM	95.69	877.89	27.98	613.40	6.44	8.37	22,638.49	14,612.61	-0.49
1/25/2023 9:06:00 AM	95.99	877.84	27.98	613.40	6.44	8.36	22,636.41	14,611.02	-0.49
1/25/2023 9:06:00 PM	95.30	878.43	27.92	613.46	6.44	8.42	22,639.11	14,613.65	-0.49
1/26/2023 9:06:00 AM	94.65	878.78	27.89	613.49	6.44	8.39	22,641.71	14,616.89	-0.49
1/26/2023 9:06:00 PM	94.87	878.84	27.88	613.50	6.44	8.38	22,640.25	14,615.13	-0.49
1/27/2023 9:06:00 AM	95.69	878.53	27.91	613.47	6.44	8.37	22,639.28	14,614.02	-0.49
1/27/2023 9:06:00 PM	96.53	877.99	27.97	613.41	6.44	8.39	22,639.08	14,613.41	-0.49
1/28/2023 9:06:00 AM	97.02	877.52	28.02	613.36	6.44	8.38	22,633.85	14,610.72	-0.49
1/28/2023 9:06:00 PM	96.81	877.82	27.98	613.40	6.44	8.40	22,638.71	14,613.71	-0.49
1/29/2023 9:06:00 AM	96.73	877.95	27.97	613.41	6.44	8.41	22,640.18	14,614.74	-0.49

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
1/29/2023 9:06:00 PM	95.59	878.44	27.92	613.46	6.44	8.42	22,643.52	14,616.77	-0.50
1/30/2023 9:06:00 AM	95.82	878.30	27.94	613.44	6.44	8.38	22,640.60	14,615.05	-0.49
1/30/2023 9:06:00 PM	95.00	878.82	27.88	613.50	6.44	8.41	22,647.07	14,619.74	-0.50
1/31/2023 9:07:00 AM	95.08	878.45	27.92	613.46	6.44	8.38	22,639.77	14,615.47	-0.50
1/31/2023 9:07:00 PM	94.94	878.40	27.93	613.45	6.44	8.37	22,642.22	14,615.92	-0.49
2/1/2023 9:07:00 AM	95.61	877.93	27.97	613.41	6.44	8.37	22,640.66	14,613.99	-0.49
2/1/2023 9:07:00 PM	96.49	877.99	27.97	613.41	6.44	8.37	22,638.61	14,612.69	-0.50
2/2/2023 9:07:00 AM	96.02	878.03	27.96	613.42	6.44	8.40	22,639.27	14,614.25	-0.50
2/2/2023 9:07:00 PM	95.06	878.51	27.91	613.47	6.44	8.41	22,647.10	14,619.28	-0.50
2/3/2023 9:07:00 AM	94.22	879.22	27.84	613.54	6.45	8.39	22,646.00	14,620.12	-0.50
2/3/2023 9:07:00 PM	94.04	878.91	27.87	613.51	6.45	8.38	22,641.90	14,617.71	-0.49
2/4/2023 9:07:00 AM	94.24	879.11	27.85	613.53	6.44	8.36	22,641.47	14,617.00	-0.50
2/4/2023 9:07:00 PM	94.38	878.81	27.88	613.50	6.44	8.35	22,641.22	14,616.67	-0.50
2/5/2023 9:07:00 AM	93.66	879.14	27.85	613.53	6.44	8.40	22,645.48	14,619.19	-0.51
2/5/2023 9:07:00 PM	93.61	879.10	27.85	613.53	6.45	8.37	22,643.32	14,618.51	-0.50
2/6/2023 9:07:00 AM	94.41	878.75	27.89	613.49	6.44	8.37	22,639.72	14,614.42	-0.50
2/6/2023 9:07:00 PM	93.89	879.04	27.86	613.52	6.44	8.39	22,642.54	14,616.81	-0.51
2/7/2023 9:07:00 AM	94.49	878.45	27.92	613.46	6.44	8.36	22,639.80	14,614.18	-0.50
2/7/2023 9:07:00 PM	94.49	878.78	27.89	613.49	6.44	8.34	22,640.75	14,615.19	-0.50
2/8/2023 9:07:00 AM	95.51	878.17	27.95	613.43	6.44	8.36	22,635.36	14,610.92	-0.50
2/8/2023 9:07:00 PM	95.94	877.91	27.98	613.40	6.44	8.34	22,636.50	14,611.79	-0.50
2/9/2023 9:07:00 AM	95.79	877.97	27.97	613.41	6.44	8.38	22,641.28	14,615.50	-0.51
2/9/2023 9:07:00 PM	95.02	878.47	27.92	613.46	6.44	8.39	22,647.09	14,620.02	-0.51
2/10/2023 9:07:00 AM	94.18	878.81	27.88	613.50	6.45	8.36	22,645.19	14,620.26	-0.51
2/10/2023 9:07:00 PM	94.57	878.67	27.90	613.48	6.45	8.33	22,647.99	14,622.23	-0.50
2/11/2023 9:07:00 AM	94.78	878.60	27.91	613.47	6.44	8.31	22,645.05	14,618.42	-0.50
2/11/2023 9:07:00 PM	94.61	878.76	27.89	613.49	6.44	8.37	22,644.90	14,617.66	-0.50
2/12/2023 9:07:00 AM	94.49	878.74	27.89	613.49	6.44	8.31	22,646.63	14,618.42	-0.50
2/12/2023 9:07:00 PM	93.18	879.84	27.78	613.60	6.44	8.31	22,646.89	14,619.46	-0.50
2/13/2023 9:07:00 AM	92.81	880.21	27.74	613.64	6.45	8.28	22,647.12	14,622.30	-0.50
2/13/2023 9:07:00 PM	94.04	879.28	27.84	613.54	6.45	8.32	22,646.05	14,622.02	-0.51
2/14/2023 9:07:00 AM	95.25	878.48	27.92	613.46	6.45	8.35	22,642.66	14,618.90	-0.51
2/14/2023 9:07:00 PM	95.47	878.08	27.96	613.42	6.44	8.26	22,640.37	14,616.38	-0.49
2/15/2023 9:07:00 AM	95.48	878.51	27.91	613.47	6.45	8.22	22,642.84	14,618.88	-0.49
2/15/2023 9:07:00 PM	95.43	878.17	27.95	613.43	6.44	8.26	22,646.58	14,620.22	-0.50
2/16/2023 9:07:00 AM	94.62	878.96	27.87	613.51	6.44	8.23	22,649.04	14,621.58	-0.50
2/16/2023 11:30:00 PM	94.45	878.86	27.91	613.47	6.44	8.33	21,932.59	14,157.76	-0.31
2/17/2023 11:30:00 AM	94.80	878.68	27.93	613.45	6.43	8.36	21,918.97	14,146.39	-0.34
2/17/2023 11:30:00 PM	94.33	879.00	27.89	613.49	6.44	8.40	21,907.20	14,139.51	-0.35
2/18/2023 11:30:00 AM	94.69	878.93	27.90	613.48	6.44	8.41	21,896.40	14,133.22	-0.36
2/18/2023 11:30:00 PM	94.87	878.86	27.91	613.47	6.44	8.43	21,897.90	14,134.33	-0.36
2/19/2023 11:30:00 AM	93.81	879.07	27.89	613.49	6.44	8.45	21,892.22	14,130.37	-0.37
2/19/2023 11:30:00 PM	94.64	878.80	27.91	613.47	6.44	8.44	21,885.62	14,126.52	-0.38
2/20/2023 11:30:00 AM	95.23	879.11	27.88	613.50	6.44	8.44	21,880.39	14,123.47	-0.38
2/20/2023 11:30:00 PM	94.67	879.06	27.89	613.49	6.44	8.45	21,880.74	14,124.26	-0.38
2/21/2023 11:30:00 AM	95.65	878.12	27.98	613.40	6.44	8.43	21,869.72	14,116.45	-0.38
2/21/2023 11:30:00 PM	96.33	877.97	28.00	613.38	6.44	8.42	21,866.37	14,114.68	-0.38
2/22/2023 11:30:00 AM	96.77	877.89	28.01	613.37	6.44	8.41	21,860.55	14,110.74	-0.39
2/22/2023 11:30:00 PM	96.94	877.55	28.04	613.34	6.44	8.35	21,855.53	14,107.62	-0.38
2/23/2023 11:30:00 AM	97.24	877.54	28.04	613.34	6.44	8.36	21,854.64	14,107.15	-0.38
2/23/2023 11:30:00 PM	96.82	877.79	28.02	613.36	6.44	8.44	21,858.33	14,109.52	-0.40
2/24/2023 11:30:00 AM	95.54	878.46	27.95	613.43	6.44	8.46	21,862.81	14,111.89	-0.40
2/24/2023 11:30:00 PM	94.44	879.36	27.86	613.52	6.44	8.45	21,858.73	14,109.69	-0.40
2/25/2023 11:30:00 AM	94.31	879.45	27.85	613.53	6.44	8.41	21,856.15	14,107.75	-0.40
2/25/2023 11:30:00 PM	93.40	879.80	27.81	613.57	6.44	8.44	21,854.75	14,107.10	-0.40
2/26/2023 11:30:00 AM	92.86	880.08	27.79	613.59	6.44	8.42	21,846.72	14,102.26	-0.40
2/26/2023 11:30:00 PM	93.25	879.69	27.82	613.56	6.44	8.39	21,834.55	14,093.10	-0.40
2/27/2023 11:30:00 AM	93.92	879.24	27.87	613.51	6.44	8.40	21,831.45	14,091.30	-0.40
2/27/2023 11:30:00 PM	94.17	879.09	27.89	613.49	6.44	8.39	21,824.49	14,086.82	-0.40
2/28/2023 11:30:00 AM	94.61	878.63	27.93	613.45	6.44	8.37	21,820.03	14,083.98	-0.40
2/28/2023 11:30:00 PM	94.91	878.71	27.92	613.46	6.44	8.37	21,818.66	14,083.03	-0.40
3/1/2023 11:30:00 AM	94.33	879.19	27.87	613.51	6.44	8.39	21,821.95	14,085.75	-0.41
3/1/2023 11:30:00 PM	93.31	879.36	27.86	613.52	6.44	8.40	21,817.35	14,083.50	-0.41
3/2/2023 11:30:00 AM	92.75	880.19	27.77	613.61	6.44	8.38	21,814.91	14,082.48	-0.41
3/2/2023 11:30:00 PM	93.39	879.38	27.86	613.52	6.44	8.35	21,805.88	14,074.95	-0.40
3/3/2023 11:30:00 AM	93.69	879.47	27.85	613.53	6.44	8.36	21,797.88	14,069.78	-0.41
3/3/2023 11:30:00 PM	94.19	879.28	27.87	613.51	6.44	8.36	21,802.16	14,072.56	-0.41
3/4/2023 11:30:00 AM	95.04	878.85	27.91	613.47	6.44	8.37	21,799.40	14,070.85	-0.41
3/4/2023 11:30:00 PM	95.85	878.31	27.96	613.42	6.44	8.35	21,799.20	14,071.07	-0.41
3/5/2023 11:30:00 AM	96.50	877.69	28.03	613.35	6.44	8.35	21,793.86	14,067.81	-0.41

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
3/5/2023 11:30:00 PM	96.63	878.05	27.99	613.39	6.44	8.34	21,795.50	14,068.74	-0.41
3/6/2023 11:30:00 AM	96.70	878.01	27.99	613.39	6.44	8.33	21,800.04	14,071.39	-0.41
3/6/2023 11:30:00 PM	96.56	878.19	27.98	613.40	6.44	8.35	21,798.45	14,070.99	-0.42
3/7/2023 11:30:00 AM	96.52	878.13	27.98	613.40	6.44	8.34	21,799.17	14,072.04	-0.42
3/7/2023 11:30:00 PM	96.86	877.82	28.01	613.37	6.44	8.31	21,792.54	14,067.07	-0.42
3/8/2023 11:30:00 AM	97.18	877.99	28.00	613.38	6.44	8.29	21,792.64	14,067.77	-0.41
3/8/2023 11:30:00 PM	97.16	878.34	27.96	613.42	6.44	8.31	21,795.40	14,069.58	-0.42
3/9/2023 11:30:00 AM	96.55	878.22	27.97	613.41	6.44	8.34	21,801.30	14,073.29	-0.43
3/9/2023 11:30:00 PM	95.63	878.75	27.92	613.46	6.44	8.35	21,799.44	14,072.33	-0.43
3/10/2023 11:30:00 AM	95.14	879.04	27.89	613.49	6.44	8.32	21,802.71	14,074.16	-0.43
3/10/2023 11:30:00 PM	95.46	879.11	27.88	613.50	6.44	8.30	21,799.64	14,072.32	-0.43
3/11/2023 11:30:00 AM	95.96	878.75	27.92	613.46	6.44	8.27	21,791.23	14,065.95	-0.42
3/11/2023 11:30:00 PM	96.09	878.66	27.93	613.45	6.44	8.27	21,786.26	14,062.66	-0.42
3/12/2023 12:30:00 PM	95.96	878.53	27.94	613.44	6.44	8.31	21,798.32	14,071.00	-0.44
3/13/2023 12:30:00 AM	95.37	879.13	27.88	613.50	6.44	8.34	21,807.40	14,077.65	-0.45
3/13/2023 12:30:00 PM	94.46	879.38	27.86	613.52	6.44	8.35	21,824.80	14,089.40	-0.45
3/14/2023 12:30:00 AM	93.80	879.86	27.81	613.57	6.44	8.34	21,834.51	14,095.30	-0.45
3/14/2023 12:30:00 PM	94.22	879.29	27.87	613.51	6.44	8.31	21,824.62	14,088.00	-0.45
3/15/2023 12:30:00 AM	94.45	878.85	27.91	613.47	6.44	8.31	21,815.55	14,081.77	-0.45
3/15/2023 12:30:00 PM	95.05	878.90	27.90	613.48	6.44	8.31	21,814.69	14,080.72	-0.45
3/16/2023 12:30:00 AM	95.69	878.52	27.94	613.44	6.44	8.29	21,803.81	14,074.20	-0.45
3/16/2023 12:30:00 PM	96.15	878.16	27.98	613.40	6.44	8.29	21,795.18	14,069.11	-0.45
3/17/2023 12:30:00 AM	96.25	878.28	27.97	613.41	6.44	8.30	21,795.20	14,068.59	-0.45
3/17/2023 12:31:00 PM	96.15	878.07	27.99	613.39	6.44	8.33	21,807.73	14,077.02	-0.46
3/18/2023 12:31:00 AM	95.74	878.73	27.92	613.46	6.44	8.33	21,824.55	14,088.17	-0.47
3/18/2023 12:31:00 PM	95.59	878.79	27.91	613.47	6.44	8.32	21,838.36	14,096.88	-0.47
3/19/2023 12:31:00 AM	95.40	879.07	27.89	613.49	6.44	8.30	21,844.30	14,101.07	-0.46
3/19/2023 12:31:00 PM	95.29	878.80	27.91	613.47	6.44	8.31	21,847.58	14,103.30	-0.46
3/20/2023 12:31:00 AM	95.05	878.99	27.90	613.48	6.44	8.27	21,855.28	14,108.73	-0.46
3/20/2023 12:31:00 PM	94.92	878.97	27.90	613.48	6.44	8.25	21,855.48	14,107.85	-0.46
3/21/2023 12:31:00 AM	94.93	879.11	27.88	613.50	6.44	8.26	21,856.74	14,109.26	-0.46
3/21/2023 12:31:00 PM	95.21	878.97	27.90	613.48	6.44	8.28	21,841.65	14,098.95	-0.46
3/22/2023 12:31:00 AM	94.96	879.07	27.89	613.49	6.44	8.28	21,845.56	14,101.89	-0.46
3/22/2023 12:31:00 PM	94.51	878.99	27.90	613.48	6.44	8.31	21,859.70	14,111.79	-0.47
3/23/2023 12:31:00 AM	94.26	879.31	27.86	613.52	6.44	8.30	21,860.11	14,111.83	-0.47
3/23/2023 12:31:00 PM	94.32	879.31	27.86	613.52	6.44	8.27	21,854.33	14,108.20	-0.47
3/24/2023 12:31:00 AM	94.64	879.05	27.89	613.49	6.44	8.28	21,845.48	14,102.19	-0.47
3/24/2023 12:31:00 PM	95.29	878.76	27.92	613.46	6.44	8.30	21,833.06	14,092.82	-0.47
3/25/2023 12:31:00 AM	95.27	878.86	27.91	613.47	6.44	8.26	21,821.94	14,085.49	-0.46
3/25/2023 12:31:00 PM	95.22	878.87	27.91	613.47	6.44	8.32	21,832.62	14,092.99	-0.47
3/26/2023 12:31:00 AM	95.53	878.66	27.93	613.45	6.44	8.30	21,824.51	14,087.27	-0.46
3/26/2023 12:31:00 PM	96.07	878.40	27.95	613.43	6.44	8.24	21,808.67	14,077.06	-0.46
3/27/2023 12:31:00 AM	96.57	877.90	28.01	613.37	6.44	8.30	21,799.64	14,071.29	-0.47
3/27/2023 12:31:00 PM	96.64	877.97	28.00	613.38	6.44	8.28	21,806.24	14,075.83	-0.47
3/28/2023 12:31:00 AM	96.22	878.13	27.98	613.40	6.44	8.31	21,830.17	14,091.41	-0.48
3/28/2023 12:31:00 PM	95.97	878.43	27.95	613.43	6.44	8.29	21,840.26	14,098.99	-0.48
3/29/2023 12:31:00 AM	95.38	878.95	27.90	613.48	6.44	8.29	21,850.59	14,105.48	-0.48
3/29/2023 12:31:00 PM	95.00	879.21	27.87	613.51	6.44	8.27	21,854.67	14,109.07	-0.47
3/30/2023 12:31:00 AM	95.12	879.25	27.87	613.51	6.44	8.25	21,845.40	14,102.17	-0.47
3/30/2023 12:31:00 PM	94.88	878.83	27.91	613.47	6.44	8.29	21,847.93	14,102.63	-0.48
3/31/2023 12:31:00 AM	94.41	879.15	27.88	613.50	6.44	8.28	21,850.40	14,104.60	-0.48
3/31/2023 12:31:00 PM	94.25	879.39	27.85	613.53	6.44	8.27	21,850.27	14,104.30	-0.48
4/1/2023 12:31:00 AM	94.04	879.66	27.83	613.55	6.44	8.27	21,850.08	14,104.12	-0.48
4/1/2023 12:31:00 PM	93.79	879.52	27.84	613.54	6.44	8.26	21,850.04	14,105.31	-0.47
4/2/2023 12:31:00 AM	93.91	879.43	27.85	613.53	6.44	8.27	21,845.31	14,101.92	-0.47
4/2/2023 12:31:00 PM	94.37	879.19	27.87	613.51	6.44	8.26	21,837.06	14,095.69	-0.47
4/3/2023 12:31:00 AM	94.79	878.88	27.91	613.47	6.44	8.29	21,826.05	14,088.23	-0.48
4/3/2023 12:31:00 PM	95.11	878.51	27.94	613.44	6.44	8.30	21,820.44	14,084.12	-0.48
4/4/2023 12:31:00 AM	95.30	878.80	27.91	613.47	6.44	8.22	21,821.09	14,084.63	-0.47
4/4/2023 12:31:00 PM	95.63	878.62	27.93	613.45	6.44	8.20	21,818.12	14,083.17	-0.46
4/5/2023 12:31:00 AM	95.45	878.93	27.90	613.48	6.44	8.28	21,835.22	14,094.14	-0.48
4/5/2023 12:31:00 PM	95.22	878.97	27.90	613.48	6.44	8.27	21,844.86	14,101.04	-0.48
4/6/2023 12:31:00 AM	95.10	878.80	27.91	613.47	6.44	8.24	21,852.16	14,106.13	-0.47
4/6/2023 12:31:00 PM	95.20	879.16	27.88	613.50	6.44	8.22	21,852.20	14,106.22	-0.47
4/7/2023 12:31:00 AM	94.94	878.95	27.90	613.48	6.44	8.26	21,852.12	14,105.49	-0.48
4/7/2023 12:31:00 PM	94.39	879.34	27.86	613.52	6.44	8.26	21,859.70	14,111.65	-0.48
4/8/2023 12:31:00 AM	93.95	879.32	27.86	613.52	6.44	8.25	21,864.65	14,115.45	-0.48
4/8/2023 12:31:00 PM	94.26	879.61	27.83	613.55	6.45	8.25	21,861.77	14,114.17	-0.48
4/9/2023 12:31:00 AM	94.22	879.58	27.84	613.54	6.44	8.25	21,862.09	14,112.75	-0.48
4/9/2023 12:31:00 PM	94.50	879.10	27.88	613.50	6.44	8.22	21,860.65	14,110.56	-0.47

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
4/10/2023 12:31:00 AM	94.47	878.90	27.90	613.48	6.44	8.28	21,875.09	14,120.81	-0.48
4/10/2023 12:31:00 PM	94.69	878.91	27.90	613.48	6.44	8.23	21,873.58	14,119.23	-0.47
4/11/2023 12:31:00 AM	94.66	879.04	27.89	613.49	6.44	8.27	21,873.27	14,119.08	-0.48
4/11/2023 12:31:00 PM	94.34	879.31	27.86	613.52	6.44	8.25	21,879.33	14,123.03	-0.48
4/12/2023 12:31:00 AM	94.50	879.35	27.86	613.52	6.44	8.23	21,875.68	14,120.55	-0.48
4/12/2023 12:31:00 PM	94.71	878.73	27.92	613.46	6.44	8.22	21,870.06	14,117.62	-0.47
4/13/2023 12:31:00 AM	94.73	879.00	27.89	613.49	6.44	8.21	21,867.93	14,115.51	-0.47
4/13/2023 12:31:00 PM	94.75	878.91	27.90	613.48	6.44	8.18	21,862.57	14,112.29	-0.46
4/14/2023 12:31:00 AM	94.86	878.79	27.92	613.46	6.44	8.23	21,859.82	14,110.93	-0.46
4/14/2023 12:31:00 PM	95.02	878.79	27.92	613.46	6.44	8.21	21,870.70	14,117.96	-0.47
4/15/2023 12:31:00 AM	95.35	878.44	27.95	613.43	6.44	8.23	21,862.31	14,111.86	-0.47
4/15/2023 12:31:00 PM	95.47	878.59	27.94	613.44	6.44	8.18	21,854.01	14,106.36	-0.46
4/16/2023 12:31:00 AM	95.24	878.58	27.94	613.44	6.44	8.25	21,877.11	14,122.39	-0.48
4/16/2023 12:31:00 PM	94.86	878.55	27.94	613.44	6.44	8.27	21,901.88	14,138.92	-0.48
4/17/2023 12:31:00 AM	93.97	879.14	27.88	613.50	6.45	8.28	21,918.52	14,150.38	-0.48
4/17/2023 12:31:00 PM	93.61	879.41	27.85	613.53	6.45	8.25	21,932.64	14,160.99	-0.48
4/18/2023 12:31:00 AM	93.97	879.30	27.86	613.52	6.45	8.27	21,921.99	14,153.14	-0.48
4/18/2023 12:31:00 PM	94.42	879.12	27.88	613.50	6.45	8.26	21,923.31	14,154.83	-0.48
4/19/2023 12:31:00 AM	94.88	878.62	27.93	613.45	6.44	8.24	21,921.35	14,151.97	-0.47
4/19/2023 12:31:00 PM	95.61	878.42	27.95	613.43	6.44	8.27	21,916.00	14,147.20	-0.48
4/20/2023 12:31:00 AM	96.23	878.16	27.98	613.40	6.44	8.26	21,911.17	14,144.20	-0.48
4/20/2023 12:31:00 PM	96.60	877.99	28.00	613.38	6.44	8.26	21,913.76	14,144.93	-0.48
4/21/2023 12:31:00 AM	96.52	878.13	27.98	613.40	6.44	8.29	21,927.93	14,155.49	-0.48
4/21/2023 12:31:00 PM	96.79	878.07	27.99	613.39	6.44	8.26	21,931.61	14,156.96	-0.48
4/22/2023 12:31:00 AM	96.42	878.11	27.98	613.40	6.44	8.32	21,939.49	14,162.48	-0.49
4/22/2023 12:31:00 PM	95.87	878.15	27.98	613.40	6.44	8.30	21,950.24	14,169.90	-0.49
4/23/2023 12:31:00 AM	95.20	878.92	27.90	613.48	6.44	8.29	21,955.54	14,173.90	-0.48
4/23/2023 12:31:00 PM	94.80	879.10	27.88	613.50	6.45	8.25	21,953.71	14,173.14	-0.48
4/24/2023 12:31:00 AM	94.56	879.10	27.88	613.50	6.45	8.25	21,950.26	14,171.45	-0.48
4/24/2023 12:31:00 PM	94.82	879.09	27.89	613.49	6.45	8.29	21,943.52	14,166.75	-0.48
4/25/2023 12:31:00 AM	95.10	878.58	27.94	613.44	6.45	8.28	21,941.58	14,165.81	-0.48
4/25/2023 12:31:00 PM	94.76	879.17	27.88	613.50	6.44	8.30	21,948.73	14,169.25	-0.48
4/26/2023 12:31:00 AM	95.26	878.60	27.93	613.45	6.44	8.26	21,946.54	14,167.50	-0.48
4/26/2023 12:31:00 PM	94.89	878.85	27.91	613.47	6.44	8.29	21,953.54	14,171.81	-0.48
4/27/2023 12:31:00 AM	94.67	879.01	27.89	613.49	6.45	8.27	21,948.33	14,169.91	-0.48
4/27/2023 12:31:00 PM	95.66	878.55	27.94	613.44	6.44	8.27	21,946.21	14,166.89	-0.48
4/28/2023 12:31:00 AM	95.35	878.38	27.96	613.42	6.44	8.28	21,949.78	14,170.12	-0.48
4/28/2023 12:31:00 PM	95.64	878.73	27.92	613.46	6.44	8.25	21,950.41	14,170.79	-0.48
4/29/2023 12:31:00 AM	95.84	878.35	27.96	613.42	6.44	8.24	21,942.66	14,164.85	-0.47
4/29/2023 12:31:00 PM	95.94	878.21	27.97	613.41	6.44	8.23	21,938.30	14,161.13	-0.47
4/30/2023 12:31:00 AM	95.55	878.50	27.94	613.44	6.44	8.24	21,947.92	14,168.83	-0.48
4/30/2023 12:31:00 PM	95.21	878.68	27.93	613.45	6.44	8.27	21,955.81	14,173.89	-0.48
5/1/2023 12:31:00 AM	94.90	878.90	27.90	613.48	6.45	8.26	21,957.09	14,175.36	-0.48
5/1/2023 12:31:00 PM	94.65	878.68	27.93	613.45	6.45	8.24	21,953.81	14,173.29	-0.48
5/2/2023 12:31:00 AM	94.60	879.40	27.85	613.53	6.45	8.21	21,946.09	14,170.04	-0.47
5/2/2023 12:31:00 PM	95.16	879.05	27.89	613.49	6.45	8.23	21,944.52	14,168.38	-0.47
5/3/2023 12:31:00 AM	94.92	878.87	27.91	613.47	6.44	8.25	21,951.67	14,171.12	-0.48
5/3/2023 12:31:00 PM	94.60	879.50	27.84	613.54	6.44	8.24	21,954.57	14,172.88	-0.48
5/4/2023 12:31:00 AM	94.46	879.32	27.86	613.52	6.45	8.25	21,948.95	14,170.07	-0.48
5/4/2023 12:31:00 PM	94.72	879.06	27.89	613.49	6.44	8.21	21,947.77	14,168.42	-0.47
5/5/2023 12:31:00 AM	94.92	878.79	27.92	613.46	6.44	8.20	21,944.84	14,166.70	-0.47
5/5/2023 12:31:00 PM	95.25	879.05	27.89	613.49	6.44	8.21	21,945.86	14,166.34	-0.47
5/6/2023 12:31:00 AM	95.44	878.91	27.90	613.48	6.44	8.21	21,945.90	14,166.15	-0.47
5/6/2023 12:31:00 PM	95.46	878.75	27.92	613.46	6.44	8.18	21,942.17	14,163.63	-0.47
5/7/2023 12:31:00 AM	95.31	878.65	27.93	613.45	6.44	8.17	21,947.61	14,168.16	-0.47
5/7/2023 12:31:00 PM	95.12	878.88	27.91	613.47	6.45	8.21	21,953.28	14,172.96	-0.48
5/8/2023 12:31:00 AM	95.07	878.69	27.93	613.45	6.44	8.20	21,954.55	14,173.63	-0.48
5/8/2023 12:31:00 PM	95.00	878.77	27.92	613.46	6.45	8.18	21,946.99	14,168.84	-0.47
5/9/2023 12:31:00 AM	95.06	878.93	27.90	613.48	6.44	8.16	21,944.06	14,166.72	-0.47
5/9/2023 12:31:00 PM	95.15	878.71	27.92	613.46	6.44	8.15	21,942.33	14,164.88	-0.47
5/10/2023 12:31:00 AM	95.28	878.66	27.93	613.45	6.44	8.15	21,941.21	14,164.76	-0.46
5/10/2023 12:31:00 PM	95.36	878.46	27.95	613.43	6.44	8.14	21,940.11	14,163.23	-0.46
5/11/2023 12:31:00 AM	95.47	878.61	27.93	613.45	6.44	8.14	21,939.55	14,163.18	-0.46
5/12/2023 12:32:00 AM	95.88	878.67	27.94	613.44	6.47	8.17	22,331.93	14,427.94	-0.29
5/12/2023 12:32:00 PM	96.39	878.51	27.96	613.42	6.46	8.21	22,376.38	14,453.33	-0.32
5/13/2023 12:32:00 AM	96.51	878.57	27.95	613.43	6.45	8.25	22,403.96	14,467.48	-0.35
5/13/2023 12:32:00 PM	96.79	877.95	28.01	613.37	6.45	8.29	22,418.65	14,476.30	-0.36
5/14/2023 12:32:00 AM	96.70	878.47	27.96	613.42	6.46	8.32	22,425.55	14,482.97	-0.37
5/14/2023 12:32:00 PM	96.75	878.29	27.98	613.40	6.46	8.34	22,427.53	14,484.95	-0.38
5/15/2023 12:32:00 AM	96.34	878.52	27.96	613.42	6.46	8.35	22,425.95	14,483.53	-0.38

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
5/15/2023 12:32:00 PM	95.76	878.68	27.94	613.44	6.46	8.35	22,423.80	14,482.65	-0.39
5/16/2023 12:32:00 AM	95.01	879.31	27.88	613.50	6.46	8.36	22,417.26	14,478.33	-0.39
5/16/2023 12:32:00 PM	95.72	878.68	27.94	613.44	6.46	8.35	22,413.52	14,476.48	-0.39
5/17/2023 12:32:00 AM	95.85	878.45	27.96	613.42	6.46	8.34	22,417.89	14,477.88	-0.39
5/17/2023 12:32:00 PM	95.68	879.14	27.89	613.49	6.46	8.34	22,412.41	14,474.01	-0.40
5/18/2023 12:32:00 AM	95.97	878.95	27.91	613.47	6.46	8.34	22,407.72	14,471.68	-0.40
5/18/2023 12:32:00 PM	95.99	878.95	27.91	613.47	6.46	8.35	22,406.12	14,470.32	-0.40
5/19/2023 12:32:00 AM	95.56	878.93	27.91	613.47	6.46	8.34	22,402.05	14,467.19	-0.40
5/19/2023 12:32:00 PM	95.12	879.33	27.87	613.51	6.46	8.34	22,398.66	14,464.66	-0.40
5/20/2023 12:32:00 AM	95.37	879.04	27.90	613.48	6.45	8.34	22,398.78	14,464.66	-0.41
5/20/2023 12:32:00 PM	95.70	879.07	27.90	613.48	6.46	8.32	22,399.77	14,465.58	-0.40
5/21/2023 12:32:00 AM	95.48	879.34	27.87	613.51	6.46	8.30	22,395.64	14,462.77	-0.40
5/21/2023 12:32:00 PM	95.15	879.43	27.86	613.52	6.45	8.32	22,393.29	14,460.63	-0.41
5/22/2023 12:32:00 AM	94.64	879.74	27.83	613.55	6.45	8.32	22,388.14	14,457.18	-0.41
5/22/2023 12:32:00 PM	94.39	879.52	27.85	613.53	6.45	8.31	22,387.35	14,456.64	-0.41
5/23/2023 12:32:00 AM	94.48	879.73	27.83	613.55	6.45	8.31	22,386.46	14,455.40	-0.41
5/23/2023 12:32:00 PM	94.78	879.52	27.86	613.52	6.45	8.30	22,384.68	14,454.39	-0.41
5/24/2023 12:32:00 AM	95.17	879.48	27.86	613.52	6.45	8.29	22,379.32	14,450.26	-0.41
5/24/2023 12:32:00 PM	95.17	879.54	27.85	613.53	6.45	8.29	22,382.76	14,452.72	-0.41
5/25/2023 12:32:00 AM	95.33	879.12	27.89	613.49	6.45	8.30	22,382.78	14,452.87	-0.42
5/25/2023 12:32:00 PM	95.57	878.94	27.91	613.47	6.45	8.30	22,378.63	14,449.89	-0.42
5/26/2023 12:32:00 AM	95.55	879.00	27.91	613.47	6.45	8.30	22,380.79	14,451.31	-0.42
5/26/2023 12:32:00 PM	95.39	879.33	27.87	613.51	6.45	8.31	22,378.97	14,449.60	-0.42
5/27/2023 12:32:00 AM	95.13	879.39	27.87	613.51	6.45	8.30	22,377.46	14,448.66	-0.42
5/27/2023 12:32:00 PM	94.92	879.23	27.88	613.50	6.45	8.29	22,378.68	14,449.77	-0.43
5/28/2023 12:32:00 AM	94.56	879.56	27.85	613.53	6.45	8.29	22,376.21	14,447.88	-0.43
5/28/2023 12:32:00 PM	94.41	879.70	27.84	613.54	6.45	8.26	22,379.27	14,449.82	-0.43
5/29/2023 12:32:00 AM	94.50	879.83	27.82	613.56	6.45	8.27	22,378.27	14,449.15	-0.43
5/29/2023 12:32:00 PM	94.35	879.67	27.84	613.54	6.45	8.25	22,380.47	14,450.50	-0.43
5/30/2023 12:32:00 AM	94.60	879.77	27.83	613.55	6.45	8.26	22,375.76	14,447.56	-0.44
5/30/2023 12:32:00 PM	94.48	879.50	27.86	613.52	6.45	8.25	22,375.75	14,446.96	-0.44
5/31/2023 12:32:00 AM	94.63	879.21	27.89	613.49	6.45	8.26	22,381.18	14,451.00	-0.44
5/31/2023 12:32:00 PM	94.77	879.33	27.87	613.51	6.45	8.26	22,377.33	14,447.84	-0.45
6/1/2023 12:32:00 AM	94.73	879.38	27.87	613.51	6.45	8.25	22,385.71	14,452.98	-0.45
6/1/2023 12:32:00 PM	95.32	879.02	27.90	613.48	6.45	8.26	22,383.11	14,451.62	-0.46
6/2/2023 12:32:00 AM	95.39	878.64	27.94	613.44	6.45	8.26	22,394.69	14,458.63	-0.46
6/2/2023 12:32:00 PM	95.63	878.94	27.91	613.47	6.45	8.26	22,394.51	14,458.41	-0.47
6/3/2023 12:32:00 AM	95.69	878.95	27.91	613.47	6.45	8.24	22,407.83	14,467.52	-0.47
6/3/2023 12:32:00 PM	95.75	878.84	27.92	613.46	6.45	8.25	22,416.43	14,472.69	-0.47
6/4/2023 12:32:00 AM	95.50	879.11	27.90	613.48	6.45	8.26	22,434.72	14,484.37	-0.48
6/4/2023 12:32:00 PM	95.20	879.39	27.87	613.51	6.45	8.25	22,452.18	14,495.85	-0.48
6/5/2023 12:32:00 AM	95.13	878.94	27.91	613.47	6.45	8.25	22,462.33	14,502.83	-0.49
6/5/2023 12:32:00 PM	95.12	879.17	27.89	613.49	6.45	8.25	22,470.40	14,507.42	-0.49
6/6/2023 12:32:00 AM	95.53	879.07	27.90	613.48	6.45	8.25	22,474.75	14,510.56	-0.49
6/6/2023 12:32:00 PM	95.49	879.01	27.91	613.47	6.45	8.24	22,481.41	14,514.77	-0.49
6/7/2023 12:32:00 AM	95.07	879.07	27.90	613.48	6.45	8.28	22,501.49	14,527.54	-0.50
6/7/2023 12:32:00 PM	95.01	878.97	27.91	613.47	6.45	8.22	22,502.44	14,528.48	-0.49
6/8/2023 12:32:00 AM	95.16	879.19	27.89	613.49	6.45	8.24	22,502.73	14,528.79	-0.49
6/8/2023 12:32:00 PM	95.57	878.92	27.92	613.46	6.45	8.24	22,505.30	14,529.66	-0.50
6/9/2023 12:32:00 AM	95.59	879.09	27.90	613.48	6.45	8.25	22,506.22	14,530.62	-0.50
6/9/2023 12:32:00 PM	95.55	879.12	27.90	613.48	6.45	8.22	22,512.85	14,534.81	-0.50
6/10/2023 12:32:00 AM	95.31	878.93	27.91	613.47	6.45	8.28	22,530.65	14,546.55	-0.51
6/10/2023 12:32:00 PM	95.12	878.95	27.91	613.47	6.45	8.27	22,535.05	14,549.61	-0.51
6/11/2023 12:32:00 AM	94.78	879.34	27.87	613.51	6.45	8.27	22,537.26	14,551.16	-0.51
6/11/2023 12:32:00 PM	95.05	879.35	27.87	613.51	6.45	8.26	22,536.95	14,550.55	-0.51
6/12/2023 12:32:00 AM	95.27	879.10	27.90	613.48	6.45	8.25	22,539.78	14,552.65	-0.51
6/12/2023 12:32:00 PM	95.25	879.31	27.88	613.50	6.45	8.23	22,533.48	14,548.04	-0.51
6/13/2023 12:32:00 AM	94.87	879.08	27.90	613.48	6.45	8.27	22,538.14	14,551.67	-0.51
6/13/2023 12:32:00 PM	94.27	879.69	27.84	613.54	6.45	8.27	22,544.16	14,555.29	-0.51
6/14/2023 12:32:00 AM	93.69	879.90	27.82	613.56	6.45	8.26	22,550.34	14,559.34	-0.51
6/14/2023 12:32:00 PM	93.79	879.74	27.83	613.55	6.45	8.26	22,542.35	14,553.87	-0.51
6/15/2023 12:32:00 AM	94.00	880.12	27.79	613.59	6.45	8.27	22,544.00	14,554.87	-0.51
6/15/2023 12:32:00 PM	94.78	879.39	27.87	613.51	6.45	8.27	22,542.88	14,554.03	-0.51
6/16/2023 12:32:00 AM	95.10	878.79	27.93	613.45	6.44	8.28	22,542.59	14,552.97	-0.52
6/16/2023 12:32:00 PM	94.60	879.51	27.86	613.52	6.44	8.32	22,546.37	14,555.69	-0.52
6/17/2023 12:32:00 AM	94.58	879.74	27.83	613.55	6.45	8.27	22,551.00	14,559.23	-0.52
6/17/2023 12:32:00 PM	94.54	879.58	27.85	613.53	6.44	8.32	22,545.42	14,554.95	-0.52
6/18/2023 12:32:00 AM	94.29	879.43	27.86	613.52	6.45	8.31	22,550.81	14,560.26	-0.52
6/18/2023 12:32:00 PM	93.90	879.77	27.83	613.55	6.45	8.29	22,549.95	14,558.99	-0.52
6/19/2023 12:32:00 AM	93.40	880.36	27.77	613.61	6.45	8.35	22,550.50	14,559.55	-0.52

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
6/19/2023 12:32:00 PM	93.35	880.47	27.76	613.62	6.45	8.30	22,549.86	14,559.68	-0.52
6/20/2023 12:32:00 AM	94.17	879.77	27.83	613.55	6.45	8.29	22,548.38	14,557.28	-0.52
6/20/2023 12:32:00 PM	94.94	880.18	27.79	613.59	6.45	8.30	22,547.93	14,557.33	-0.52
6/21/2023 12:32:00 AM	95.34	879.41	27.87	613.51	6.45	8.29	22,547.53	14,556.56	-0.52
6/21/2023 12:32:00 PM	95.29	879.49	27.86	613.52	6.45	8.27	22,544.00	14,554.48	-0.52
6/22/2023 12:32:00 AM	95.32	879.42	27.86	613.52	6.45	8.31	22,544.79	14,554.86	-0.52
6/22/2023 12:32:00 PM	95.31	879.14	27.89	613.49	6.45	8.27	22,548.43	14,557.21	-0.52
6/23/2023 12:32:00 AM	95.14	879.70	27.84	613.54	6.45	8.27	22,546.48	14,556.97	-0.52
6/23/2023 12:32:00 PM	95.10	879.37	27.87	613.51	6.45	8.26	22,545.34	14,555.93	-0.52
6/24/2023 12:32:00 AM	95.09	879.27	27.88	613.50	6.45	8.26	22,538.26	14,551.55	-0.52
6/24/2023 12:32:00 PM	95.10	879.59	27.85	613.53	6.45	8.25	22,537.26	14,550.86	-0.52
6/25/2023 12:32:00 AM	94.97	879.66	27.84	613.54	6.45	8.25	22,537.30	14,550.89	-0.52
6/25/2023 12:32:00 PM	95.34	879.36	27.87	613.51	6.45	8.24	22,535.86	14,549.69	-0.51
6/26/2023 12:32:00 AM	95.29	879.68	27.84	613.54	6.45	8.24	22,533.77	14,548.88	-0.51
6/26/2023 12:32:00 PM	94.99	879.46	27.86	613.52	6.45	8.24	22,530.83	14,546.76	-0.51
6/27/2023 12:32:00 AM	94.76	879.44	27.86	613.52	6.45	8.27	22,535.58	14,550.83	-0.51
6/27/2023 12:32:00 PM	94.71	879.82	27.82	613.56	6.45	8.24	22,536.53	14,551.22	-0.51
6/28/2023 12:32:00 AM	94.88	879.67	27.84	613.54	6.45	8.25	22,529.08	14,546.23	-0.51
6/28/2023 12:32:00 PM	95.05	879.38	27.87	613.51	6.45	8.23	22,525.84	14,543.58	-0.51
6/29/2023 12:32:00 AM	94.96	879.70	27.84	613.54	6.45	8.22	22,530.48	14,545.83	-0.51
6/29/2023 12:32:00 PM	94.99	879.38	27.87	613.51	6.45	8.20	22,525.15	14,543.40	-0.50
6/30/2023 12:32:00 AM	95.04	879.18	27.89	613.49	6.45	8.20	22,529.00	14,545.51	-0.50
6/30/2023 12:32:00 PM	95.12	879.46	27.86	613.52	6.45	8.18	22,523.67	14,542.04	-0.50
7/1/2023 12:32:00 AM	95.03	879.69	27.84	613.54	6.45	8.23	22,535.04	14,549.97	-0.51
7/1/2023 12:32:00 PM	94.82	879.62	27.84	613.54	6.45	8.25	22,532.60	14,547.97	-0.52
7/2/2023 12:32:00 AM	94.79	879.61	27.85	613.53	6.45	8.23	22,529.19	14,546.32	-0.51
7/2/2023 12:32:00 PM	94.81	879.52	27.85	613.53	6.45	8.22	22,528.36	14,545.67	-0.51
7/3/2023 12:32:00 AM	95.01	879.77	27.83	613.55	6.45	8.22	22,525.89	14,543.77	-0.51
7/3/2023 12:32:00 PM	95.25	879.45	27.86	613.52	6.45	8.24	22,525.16	14,544.41	-0.51
7/4/2023 12:32:00 AM	95.87	879.34	27.87	613.51	6.45	8.22	22,525.17	14,543.34	-0.51
7/4/2023 12:32:00 PM	95.91	879.47	27.86	613.52	6.45	8.22	22,524.57	14,542.68	-0.51
7/5/2023 12:32:00 AM	95.71	879.43	27.86	613.52	6.45	8.22	22,528.72	14,546.24	-0.51
7/5/2023 12:32:00 PM	95.36	879.50	27.86	613.52	6.45	8.25	22,532.33	14,548.54	-0.52
7/6/2023 12:32:00 AM	95.17	879.65	27.84	613.54	6.45	8.23	22,533.92	14,549.99	-0.52
7/6/2023 12:33:00 PM	95.34	879.50	27.86	613.52	6.45	8.24	22,530.21	14,547.37	-0.51
7/7/2023 12:33:00 AM	95.44	879.19	27.89	613.49	6.45	8.27	22,530.98	14,548.04	-0.52
7/7/2023 12:33:00 PM	95.65	878.83	27.92	613.46	6.45	8.21	22,524.67	14,543.73	-0.50
7/8/2023 12:33:00 AM	95.39	879.33	27.87	613.51	6.45	8.24	22,532.65	14,548.77	-0.51
7/8/2023 12:33:00 PM	95.03	879.75	27.83	613.55	6.45	8.22	22,527.56	14,545.30	-0.51
7/9/2023 12:33:00 AM	94.74	879.68	27.84	613.54	6.45	8.21	22,530.44	14,547.39	-0.51
7/9/2023 12:33:00 PM	94.70	879.51	27.86	613.52	6.45	8.20	22,527.81	14,545.74	-0.51
7/10/2023 12:33:00 AM	94.77	879.33	27.87	613.51	6.45	8.20	22,525.27	14,543.98	-0.51
7/10/2023 12:33:00 PM	95.08	879.12	27.90	613.48	6.45	8.21	22,526.79	14,545.16	-0.51
7/11/2023 12:33:00 AM	95.15	879.36	27.87	613.51	6.45	8.20	22,529.74	14,545.91	-0.50
7/11/2023 12:33:00 PM	95.10	879.36	27.87	613.51	6.45	8.27	22,533.15	14,548.68	-0.52
7/12/2023 12:33:00 AM	95.02	879.75	27.83	613.55	6.45	8.23	22,531.97	14,549.17	-0.52
7/12/2023 12:33:00 PM	94.92	879.40	27.87	613.51	6.45	8.22	22,533.56	14,549.68	-0.51
7/13/2023 12:33:00 AM	94.90	879.65	27.84	613.54	6.45	8.21	22,530.76	14,547.85	-0.51
7/13/2023 12:33:00 PM	95.03	879.52	27.86	613.52	6.45	8.23	22,531.40	14,547.48	-0.52
7/14/2023 12:33:00 AM	95.19	879.25	27.88	613.50	6.45	8.26	22,531.01	14,547.65	-0.52
7/14/2023 12:33:00 PM	95.50	879.33	27.87	613.51	6.45	8.22	22,528.57	14,546.28	-0.51
7/15/2023 12:33:00 AM	95.49	879.15	27.89	613.49	6.45	8.22	22,528.75	14,546.90	-0.51
7/15/2023 12:33:00 PM	95.39	878.99	27.91	613.47	6.45	8.17	22,528.02	14,545.68	-0.51
7/16/2023 12:33:00 AM	95.37	879.33	27.87	613.51	6.45	8.20	22,527.63	14,545.54	-0.51
7/16/2023 12:33:00 PM	95.42	879.18	27.89	613.49	6.45	8.15	22,526.93	14,544.34	-0.50
7/17/2023 12:33:00 AM	95.05	879.39	27.87	613.51	6.45	8.23	22,535.38	14,550.86	-0.52
7/17/2023 12:33:00 PM	94.50	879.66	27.84	613.54	6.45	8.23	22,533.16	14,550.21	-0.52
7/18/2023 12:33:00 AM	94.37	879.80	27.83	613.55	6.45	8.23	22,534.94	14,551.36	-0.52
7/18/2023 12:33:00 PM	94.91	879.69	27.84	613.54	6.45	8.23	22,533.10	14,550.76	-0.52
7/19/2023 12:33:00 AM	95.64	879.37	27.87	613.51	6.45	8.25	22,533.36	14,549.14	-0.52
7/19/2023 12:33:00 PM	95.98	879.09	27.90	613.48	6.45	8.24	22,533.82	14,549.74	-0.52
7/20/2023 12:33:00 AM	95.93	879.68	27.84	613.54	6.45	8.24	22,530.26	14,547.08	-0.52
7/20/2023 12:33:00 PM	95.93	879.10	27.90	613.48	6.45	8.22	22,530.20	14,547.82	-0.51
7/21/2023 12:33:00 AM	95.72	879.41	27.87	613.51	6.45	8.22	22,533.36	14,548.85	-0.51
7/21/2023 12:33:00 PM	95.61	879.58	27.85	613.53	6.45	8.21	22,534.49	14,549.40	-0.51
7/22/2023 12:33:00 AM	95.28	880.07	27.80	613.58	6.45	8.22	22,533.39	14,549.32	-0.51
7/22/2023 12:33:00 PM	95.08	879.89	27.82	613.56	6.45	8.21	22,536.56	14,551.43	-0.51
7/23/2023 12:33:00 AM	95.01	880.01	27.81	613.57	6.45	8.24	22,534.98	14,550.76	-0.51
7/23/2023 12:33:00 PM	95.21	879.55	27.85	613.53	6.45	8.21	22,537.21	14,551.70	-0.51
7/24/2023 12:33:00 AM	95.13	879.91	27.82	613.56	6.45	8.20	22,536.75	14,552.00	-0.51

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
7/24/2023 12:33:00 PM	94.89	879.93	27.81	613.57	6.45	8.15	22,537.18	14,552.22	-0.50
7/25/2023 12:33:00 AM	94.15	880.57	27.75	613.63	6.45	8.24	22,539.38	14,554.60	-0.52
7/25/2023 12:33:00 PM	94.57	880.55	27.75	613.63	6.45	8.20	22,533.68	14,549.63	-0.51
7/26/2023 12:33:00 AM	94.85	879.99	27.81	613.57	6.45	8.22	22,531.37	14,547.29	-0.51
7/26/2023 12:33:00 PM	94.54	880.21	27.78	613.60	6.45	8.22	22,535.56	14,550.55	-0.51
7/27/2023 12:33:00 AM	95.02	879.90	27.82	613.56	6.45	8.24	22,530.04	14,546.63	-0.51
7/27/2023 12:33:00 PM	95.76	879.83	27.82	613.56	6.45	8.25	22,529.37	14,545.02	-0.52
7/28/2023 12:33:00 AM	96.13	879.18	27.89	613.49	6.45	8.24	22,525.63	14,542.98	-0.51
7/28/2023 12:33:00 PM	96.27	879.35	27.87	613.51	6.45	8.28	22,522.42	14,541.85	-0.52
7/29/2023 12:33:00 AM	96.20	879.58	27.85	613.53	6.45	8.22	22,533.31	14,548.12	-0.51
7/29/2023 12:33:00 PM	96.02	879.53	27.85	613.53	6.45	8.22	22,534.89	14,550.03	-0.51
7/30/2023 12:33:00 AM	95.67	880.01	27.81	613.57	6.45	8.22	22,537.68	14,552.86	-0.51
7/30/2023 12:33:00 PM	95.31	879.90	27.82	613.56	6.45	8.18	22,538.77	14,553.17	-0.51
7/31/2023 12:33:00 AM	94.94	880.28	27.78	613.60	6.45	8.21	22,539.92	14,554.15	-0.51
7/31/2023 12:33:00 PM	95.17	880.27	27.78	613.60	6.45	8.21	22,535.99	14,552.15	-0.51
8/1/2023 12:33:00 AM	95.33	879.69	27.84	613.54	6.45	8.18	22,534.14	14,550.42	-0.51
8/1/2023 12:33:00 PM	95.46	879.91	27.82	613.56	6.45	8.21	22,529.61	14,546.64	-0.51
8/2/2023 12:33:00 AM	95.55	879.77	27.83	613.55	6.45	8.17	22,526.40	14,543.98	-0.51
8/2/2023 12:33:00 PM	95.67	879.83	27.82	613.56	6.45	8.17	22,525.32	14,543.52	-0.51
8/3/2023 12:33:00 AM	95.42	880.00	27.81	613.57	6.45	8.22	22,533.99	14,549.92	-0.51
8/3/2023 12:33:00 PM	95.51	879.94	27.81	613.57	6.45	8.21	22,536.01	14,551.14	-0.51
8/4/2023 12:33:00 AM	95.67	879.66	27.84	613.54	6.45	8.25	22,533.39	14,549.44	-0.51
8/4/2023 12:33:00 PM	95.90	879.53	27.85	613.53	6.45	8.18	22,537.04	14,550.86	-0.50
8/5/2023 12:33:00 AM	96.01	879.99	27.81	613.57	6.45	8.18	22,535.93	14,549.96	-0.51
8/5/2023 12:33:00 PM	96.27	879.51	27.86	613.52	6.45	8.15	22,533.67	14,547.73	-0.49
8/6/2023 12:33:00 AM	96.16	879.68	27.84	613.54	6.45	8.22	22,536.59	14,550.52	-0.51
8/6/2023 12:33:00 PM	96.00	879.62	27.84	613.54	6.45	8.17	22,535.50	14,549.64	-0.51
8/7/2023 12:33:00 AM	95.61	880.05	27.80	613.58	6.45	8.19	22,538.35	14,552.70	-0.51
8/7/2023 12:33:00 PM	95.46	880.06	27.80	613.58	6.45	8.15	22,539.52	14,554.02	-0.50
8/8/2023 12:33:00 AM	95.29	879.89	27.82	613.56	6.45	8.18	22,539.35	14,554.32	-0.51
8/8/2023 12:33:00 PM	95.16	880.10	27.80	613.58	6.45	8.16	22,536.54	14,550.73	-0.50
8/9/2023 12:33:00 AM	94.91	880.00	27.81	613.57	6.45	8.17	22,538.91	14,552.18	-0.51
8/10/2023 12:33:00 AM	93.96	881.53	27.65	613.73	6.46	7.98	21,819.30	14,091.51	-0.24
8/10/2023 12:33:00 PM	93.94	881.44	27.66	613.72	6.45	8.03	21,845.19	14,106.81	-0.26
8/11/2023 12:33:00 AM	94.32	881.55	27.65	613.73	6.45	8.07	21,877.38	14,127.32	-0.28
8/11/2023 12:33:00 PM	94.82	881.26	27.68	613.70	6.46	8.11	21,914.44	14,152.66	-0.30
8/12/2023 12:33:00 AM	95.01	881.31	27.67	613.71	6.46	8.23	21,941.08	14,170.54	-0.32
8/12/2023 12:33:00 PM	95.32	881.24	27.68	613.70	6.46	8.24	21,960.96	14,182.42	-0.33
8/13/2023 12:33:00 AM	95.76	880.96	27.71	613.67	6.46	8.22	21,967.95	14,187.02	-0.34
8/13/2023 12:33:00 PM	95.65	880.73	27.73	613.65	6.46	8.26	21,970.30	14,188.27	-0.34
8/14/2023 12:33:00 AM	95.40	881.13	27.69	613.69	6.46	8.29	21,977.40	14,192.81	-0.35
8/14/2023 12:33:00 PM	95.45	880.74	27.73	613.65	6.46	8.27	21,970.41	14,188.63	-0.35
8/15/2023 12:33:00 AM	95.52	881.13	27.69	613.69	6.46	8.27	21,971.99	14,189.18	-0.35
8/15/2023 12:33:00 PM	94.92	881.11	27.69	613.69	6.45	8.26	21,974.56	14,190.33	-0.36
8/16/2023 12:33:00 AM	94.92	881.18	27.69	613.69	6.46	8.26	21,967.53	14,186.99	-0.36
8/16/2023 12:33:00 PM	95.29	881.01	27.70	613.68	6.45	8.26	21,967.49	14,186.00	-0.36
8/17/2023 12:33:00 AM	94.87	881.30	27.68	613.70	6.45	8.26	21,963.42	14,182.62	-0.36
8/17/2023 12:33:00 PM	94.15	881.75	27.63	613.75	6.45	8.28	21,959.93	14,181.22	-0.37
8/18/2023 12:33:00 AM	93.98	881.65	27.64	613.74	6.45	8.24	21,958.52	14,179.92	-0.37
8/18/2023 12:33:00 PM	94.19	881.62	27.64	613.74	6.46	8.23	21,958.99	14,180.47	-0.37
8/19/2023 12:33:00 AM	95.16	881.10	27.70	613.68	6.45	8.22	21,958.46	14,179.97	-0.37
8/19/2023 12:33:00 PM	95.80	880.81	27.73	613.65	6.45	8.23	21,953.79	14,176.71	-0.37
8/20/2023 12:33:00 AM	95.94	880.91	27.71	613.67	6.46	8.26	21,955.15	14,178.24	-0.37
8/20/2023 12:33:00 PM	95.88	881.08	27.70	613.68	6.45	8.25	21,953.00	14,176.02	-0.37
8/21/2023 12:33:00 AM	95.73	880.94	27.71	613.67	6.45	8.26	21,955.27	14,177.31	-0.38
8/21/2023 12:33:00 PM	95.71	881.01	27.70	613.68	6.45	8.23	21,952.08	14,174.91	-0.38
8/22/2023 12:33:00 AM	95.51	881.03	27.70	613.68	6.45	8.25	21,950.26	14,174.02	-0.38
8/22/2023 12:33:00 PM	95.38	880.66	27.74	613.64	6.45	8.25	21,954.97	14,177.04	-0.38
8/23/2023 12:33:00 AM	95.17	881.18	27.69	613.69	6.45	8.22	21,949.98	14,173.23	-0.38
8/23/2023 12:33:00 PM	94.94	881.15	27.69	613.69	6.45	8.21	21,945.30	14,169.86	-0.38
8/24/2023 12:33:00 AM	94.72	881.61	27.64	613.74	6.45	8.20	21,943.38	14,169.51	-0.38
8/24/2023 12:33:00 PM	95.43	881.21	27.68	613.70	6.45	8.18	21,940.26	14,167.24	-0.38
8/25/2023 12:33:00 AM	96.15	880.75	27.73	613.65	6.45	8.19	21,935.91	14,164.44	-0.38
8/25/2023 12:33:00 PM	96.12	880.66	27.74	613.64	6.45	8.20	21,943.94	14,168.80	-0.38
8/26/2023 12:33:00 AM	95.58	881.60	27.64	613.74	6.45	8.20	21,943.91	14,169.44	-0.39
8/26/2023 12:33:00 PM	95.30	881.29	27.68	613.70	6.45	8.21	21,932.42	14,161.86	-0.39
8/27/2023 12:33:00 AM	95.43	881.21	27.68	613.70	6.45	8.18	21,927.97	14,159.52	-0.39
9/22/2023 2:13:00 PM	120.36	880.86	27.81	613.57	-	8.16	21,970.59	14,186.30	-0.48
9/23/2023 2:13:00 AM	120.36	880.99	27.79	613.59	-	8.11	21,973.21	14,187.99	-0.48
9/23/2023 2:13:00 PM	120.36	881.51	27.74	613.64	-	8.11	21,970.00	14,185.92	-0.49

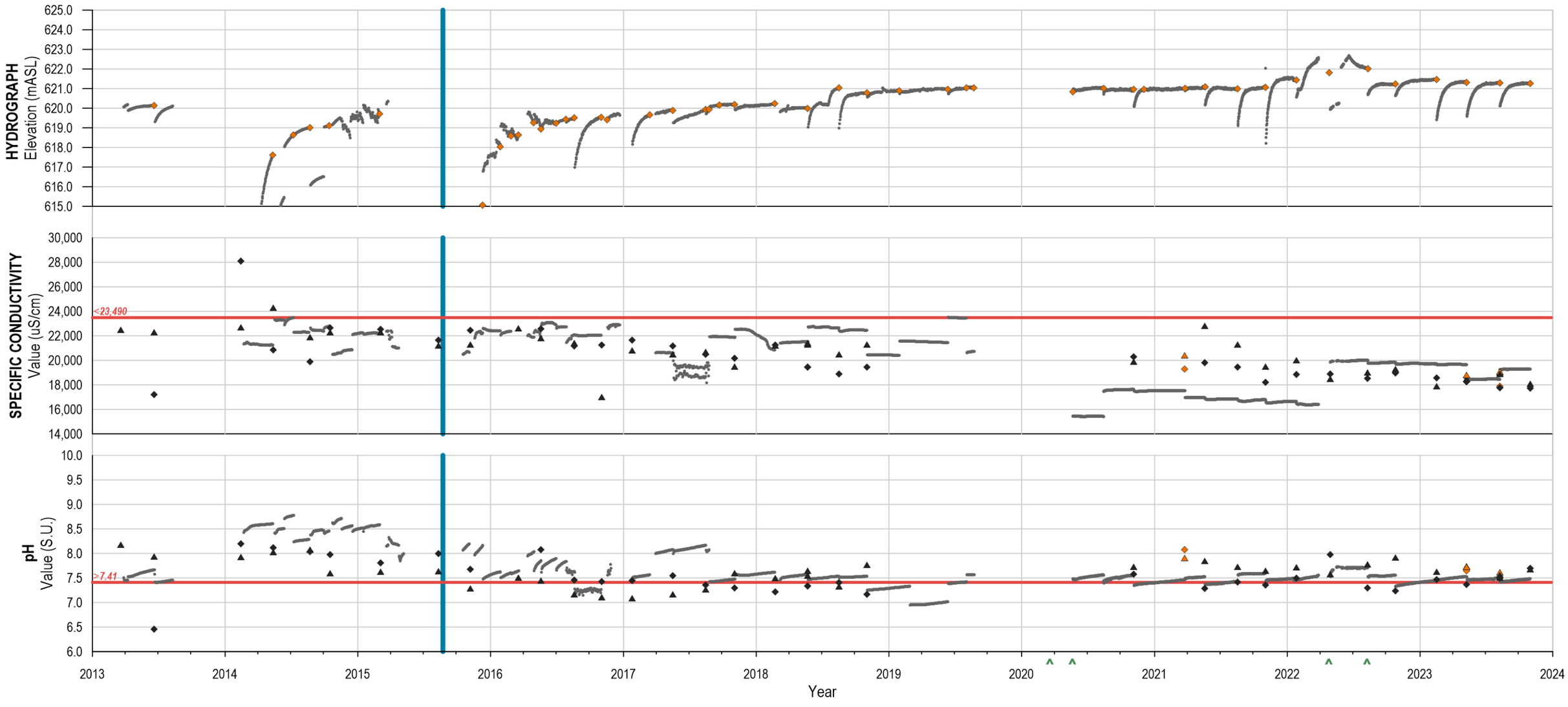
Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
9/24/2023 2:13:00 AM	120.36	881.49	27.74	613.64	-	8.13	21,976.51	14,190.12	-0.49
9/24/2023 2:13:00 PM	120.36	881.02	27.79	613.59	-	8.15	21,968.19	14,184.75	-0.49
9/25/2023 2:13:00 AM	120.36	881.09	27.78	613.60	-	8.17	21,961.17	14,180.22	-0.49
9/25/2023 2:13:00 PM	120.36	881.11	27.78	613.60	-	8.12	21,957.83	14,178.06	-0.48
9/26/2023 2:13:00 AM	120.36	881.53	27.74	613.64	-	8.16	21,971.21	14,186.70	-0.49
9/26/2023 2:13:00 PM	120.36	881.23	27.77	613.61	-	8.13	21,972.84	14,187.75	-0.49
9/27/2023 2:13:00 AM	120.36	881.20	27.77	613.61	-	8.10	21,969.57	14,185.64	-0.48
9/27/2023 2:13:00 PM	120.36	881.35	27.76	613.62	-	8.08	21,966.46	14,183.64	-0.48
9/28/2023 2:13:00 AM	120.36	881.25	27.77	613.61	-	8.11	21,963.22	14,181.54	-0.47
9/28/2023 2:13:00 PM	120.36	881.41	27.75	613.63	-	8.11	21,964.90	14,182.63	-0.47
9/29/2023 2:13:00 AM	120.36	881.16	27.78	613.60	-	8.10	21,963.22	14,181.54	-0.47
9/29/2023 2:13:00 PM	120.36	881.15	27.78	613.60	-	8.13	21,959.35	14,179.04	-0.47
9/30/2023 2:13:00 AM	120.36	880.79	27.81	613.57	-	8.14	21,955.57	14,176.60	-0.48
9/30/2023 2:13:00 PM	120.36	880.64	27.83	613.55	-	8.13	21,956.22	14,177.02	-0.48
10/1/2023 2:13:00 AM	120.36	880.61	27.83	613.55	-	8.09	21,952.88	14,174.86	-0.47
10/1/2023 2:13:00 PM	120.36	880.82	27.81	613.57	-	8.17	21,972.65	14,187.63	-0.48
10/2/2023 2:13:00 AM	120.36	881.12	27.78	613.60	-	8.15	21,984.83	14,195.50	-0.49
10/2/2023 2:13:00 PM	120.36	881.55	27.74	613.64	-	8.15	21,989.10	14,198.25	-0.49
10/3/2023 2:13:00 AM	120.36	881.08	27.79	613.59	-	8.12	21,977.87	14,191.00	-0.49
10/3/2023 2:13:00 PM	120.36	881.37	27.76	613.62	-	8.12	21,973.31	14,188.06	-0.49
10/4/2023 2:13:00 AM	120.36	881.39	27.75	613.63	-	8.14	21,984.12	14,195.04	-0.49
10/4/2023 2:13:00 PM	120.36	881.03	27.79	613.59	-	8.14	21,976.80	14,190.31	-0.49
10/5/2023 2:13:00 AM	120.36	880.59	27.83	613.55	-	8.19	21,974.08	14,188.56	-0.49
10/5/2023 2:13:00 PM	120.36	880.48	27.85	613.53	-	8.17	21,969.69	14,185.72	-0.49
10/6/2023 2:13:00 AM	120.36	880.19	27.88	613.50	-	8.18	21,967.51	14,184.31	-0.49
10/6/2023 2:13:00 PM	120.36	880.94	27.80	613.58	-	8.17	21,981.07	14,193.07	-0.50
10/7/2023 2:13:00 AM	120.36	881.03	27.79	613.59	-	8.15	21,986.50	14,196.57	-0.50
10/7/2023 2:13:00 PM	120.36	881.10	27.78	613.60	-	8.10	21,979.31	14,191.93	-0.49
10/8/2023 2:13:00 AM	120.36	881.21	27.77	613.61	-	8.15	21,984.44	14,195.25	-0.50
10/8/2023 2:13:00 PM	120.36	881.25	27.77	613.61	-	8.13	21,981.06	14,193.06	-0.50
10/9/2023 2:13:00 AM	120.36	881.50	27.74	613.64	-	8.13	21,978.98	14,191.72	-0.49
10/9/2023 2:13:00 PM	120.36	881.74	27.72	613.66	-	8.14	21,978.43	14,191.36	-0.49
10/10/2023 2:13:00 AM	120.36	881.59	27.73	613.65	-	8.09	21,979.41	14,191.99	-0.48
10/10/2023 2:13:00 PM	120.36	881.99	27.69	613.69	-	8.12	21,983.30	14,194.51	-0.48
10/11/2023 2:13:00 AM	120.36	881.97	27.70	613.68	-	8.13	21,974.19	14,188.63	-0.49
10/11/2023 2:13:00 PM	120.36	881.47	27.75	613.63	-	8.15	21,969.57	14,185.64	-0.49
10/12/2023 2:13:00 AM	120.36	881.12	27.78	613.60	-	8.17	21,965.92	14,183.29	-0.49
10/12/2023 2:13:00 PM	120.36	880.89	27.80	613.58	-	8.17	21,964.28	14,182.22	-0.49
10/13/2023 2:13:00 AM	120.36	880.44	27.85	613.53	-	8.18	21,962.15	14,180.85	-0.49
10/13/2023 2:13:00 PM	120.36	880.67	27.83	613.55	-	8.19	21,964.18	14,182.16	-0.50
10/14/2023 2:13:00 AM	120.36	880.84	27.81	613.57	-	8.17	21,968.81	14,185.15	-0.50
10/14/2023 2:13:00 PM	120.36	880.67	27.83	613.55	-	8.13	21,968.15	14,184.73	-0.49
10/15/2023 2:13:00 AM	120.36	880.83	27.81	613.57	-	8.10	21,966.47	14,183.64	-0.48
10/15/2023 2:13:00 PM	120.36	880.99	27.79	613.59	-	8.16	21,968.88	14,185.19	-0.49
10/16/2023 2:13:00 AM	120.36	880.52	27.84	613.54	-	8.14	21,965.07	14,182.74	-0.49
10/16/2023 2:13:00 PM	120.36	880.95	27.80	613.58	-	8.17	21,971.88	14,187.13	-0.50
10/17/2023 2:13:00 AM	120.36	881.64	27.73	613.65	-	8.17	21,985.11	14,195.68	-0.50
10/17/2023 2:13:00 PM	120.36	881.21	27.77	613.61	-	8.15	21,977.65	14,190.86	-0.50
10/18/2023 2:13:00 AM	120.36	881.19	27.77	613.61	-	8.14	21,976.33	14,190.01	-0.50
10/18/2023 2:13:00 PM	120.36	881.51	27.74	613.64	-	8.16	21,978.82	14,191.61	-0.49
10/19/2023 2:13:00 AM	120.36	881.58	27.74	613.64	-	8.14	21,974.28	14,188.68	-0.49
10/19/2023 2:13:00 PM	120.36	881.54	27.74	613.64	-	8.14	21,972.49	14,187.52	-0.49
10/20/2023 2:13:00 AM	120.36	881.19	27.77	613.61	-	8.16	21,968.37	14,184.87	-0.49
10/20/2023 2:13:00 PM	120.36	881.13	27.78	613.60	-	8.17	21,967.00	14,183.98	-0.50
10/21/2023 2:13:00 AM	120.36	880.60	27.83	613.55	-	8.16	21,962.09	14,180.81	-0.49
10/21/2023 2:13:00 PM	120.36	880.90	27.80	613.58	-	8.18	21,966.34	14,183.56	-0.50
10/22/2023 2:13:00 AM	120.36	880.84	27.81	613.57	-	8.17	21,968.66	14,185.05	-0.50
10/22/2023 2:13:00 PM	120.36	881.07	27.79	613.59	-	8.16	21,970.11	14,185.99	-0.50
10/23/2023 2:13:00 AM	120.36	880.12	27.88	613.50	-	8.15	21,967.11	14,184.06	-0.49
10/23/2023 2:13:00 PM	120.36	880.59	27.84	613.54	-	8.13	21,965.14	14,182.78	-0.49
10/24/2023 2:13:00 AM	120.36	880.74	27.82	613.56	-	8.16	21,964.13	14,182.13	-0.49
10/24/2023 2:13:00 PM	120.36	880.57	27.84	613.54	-	8.15	21,968.41	14,184.89	-0.49
10/25/2023 2:13:00 AM	120.36	880.70	27.82	613.56	-	8.13	21,971.77	14,187.06	-0.49
10/25/2023 2:13:00 PM	120.36	880.72	27.82	613.56	-	8.11	21,971.07	14,186.61	-0.49
10/26/2023 2:13:00 AM	120.36	880.35	27.86	613.52	-	8.09	21,973.47	14,188.16	-0.49
10/26/2023 2:13:00 PM	120.36	880.45	27.85	613.53	-	8.10	21,971.35	14,186.79	-0.49
10/27/2023 2:13:00 AM	120.36	880.48	27.85	613.53	-	8.09	21,970.16	14,186.02	-0.49
10/27/2023 2:13:00 PM	120.36	880.65	27.83	613.55	-	8.13	21,979.21	14,191.87	-0.49
10/28/2023 2:13:00 AM	120.36	880.48	27.85	613.53	-	8.15	21,977.99	14,191.08	-0.49
10/28/2023 2:13:00 PM	120.36	880.46	27.85	613.53	-	8.13	21,984.44	14,195.24	-0.49

Table D.9 Summary of 2023 Continuous Water Quality Measurements at 1F1/05-35

Statistic/Date	Barometric Pressure (kPa)	Water Pressure (kPa)	Water Level Depth (mBGS)	Water Level Elevation (mASL)	Temperature (deg C)	pH	Specific Conductivity (uS/cm)	Actual Conductivity (uS/cm)	Oxygen Reduction Potential (V)
10/29/2023 2:13:00 AM	120.36	880.29	27.87	613.51	-	8.11	21,973.57	14,188.23	-0.49
10/29/2023 2:13:00 PM	120.36	880.33	27.86	613.52	-	8.17	21,983.52	14,194.65	-0.50
10/30/2023 2:13:00 AM	120.36	880.59	27.83	613.55	-	8.13	21,990.24	14,198.99	-0.50
10/30/2023 2:13:00 PM	120.36	880.25	27.87	613.51	-	8.13	21,985.32	14,195.81	-0.50
10/31/2023 2:13:00 AM	120.36	880.81	27.81	613.57	-	8.14	21,988.59	14,197.92	-0.50
10/31/2023 2:13:00 PM	120.36	880.57	27.84	613.54	-	8.09	21,984.64	14,195.37	-0.49
11/1/2023 2:13:00 AM	120.36	880.96	27.80	613.58	-	8.09	21,980.42	14,192.65	-0.49
11/1/2023 2:13:00 PM	120.36	880.77	27.82	613.56	-	7.95	21,479.64	13,869.30	-0.19

Appendix E Downhole Datalogger Charts



Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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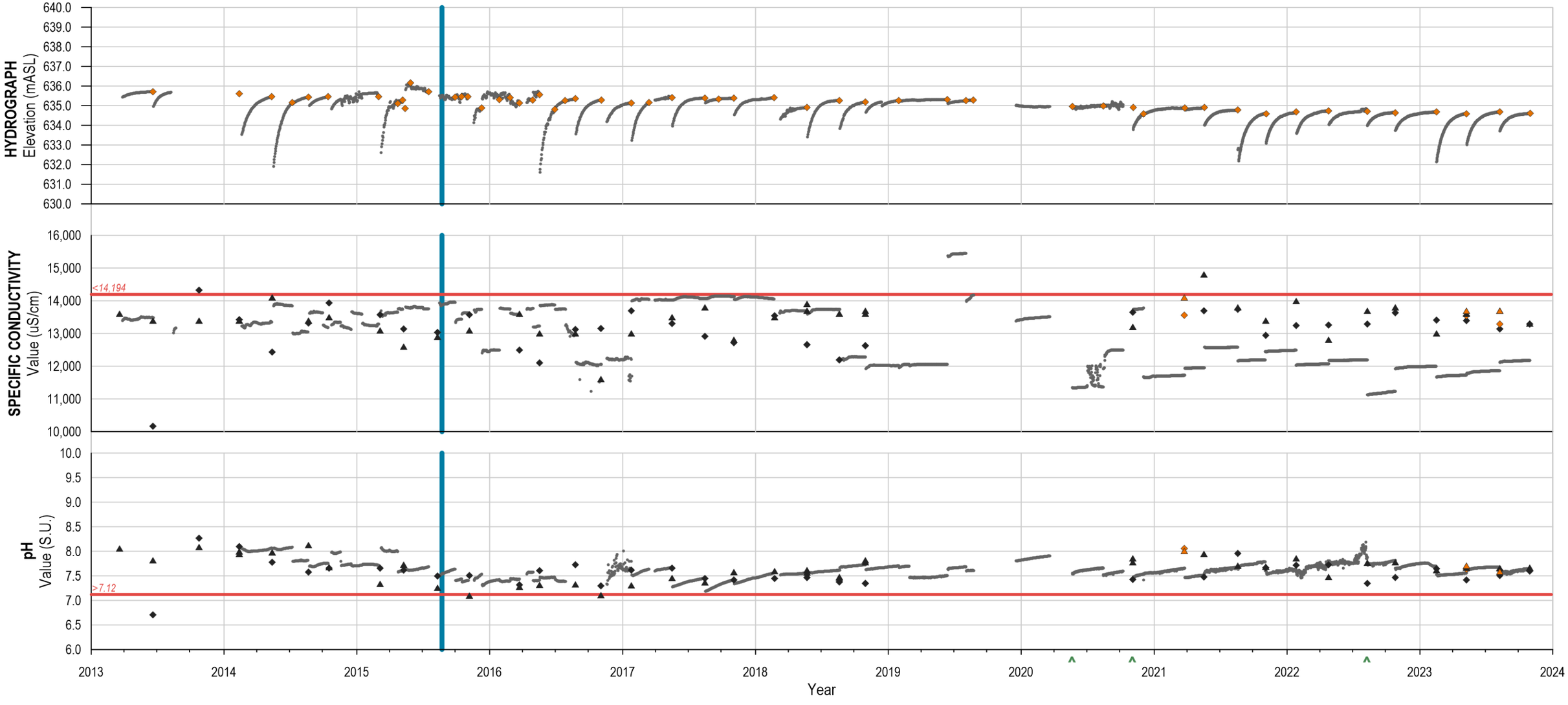
Chart No.
E.1

Chart Name
Continuous Water Level and Quality Measurements at UL1/08-19



Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

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Chart No.
E.2

Chart Name
Continuous Water Level and Quality Measurements at UL2/08-19

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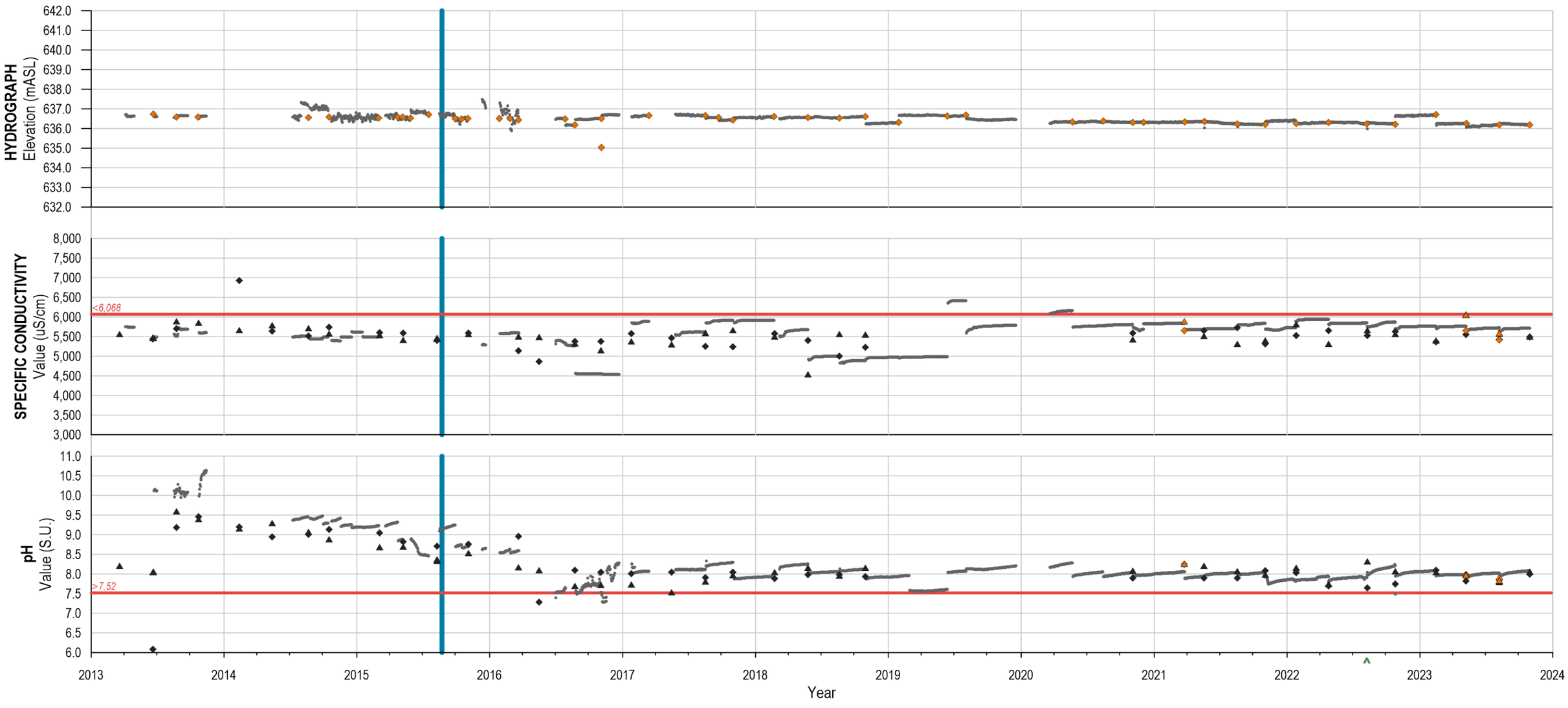

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

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Chart No.
E.3

Chart Name
Continuous Water Level and Quality Measurements at UL3/08-19

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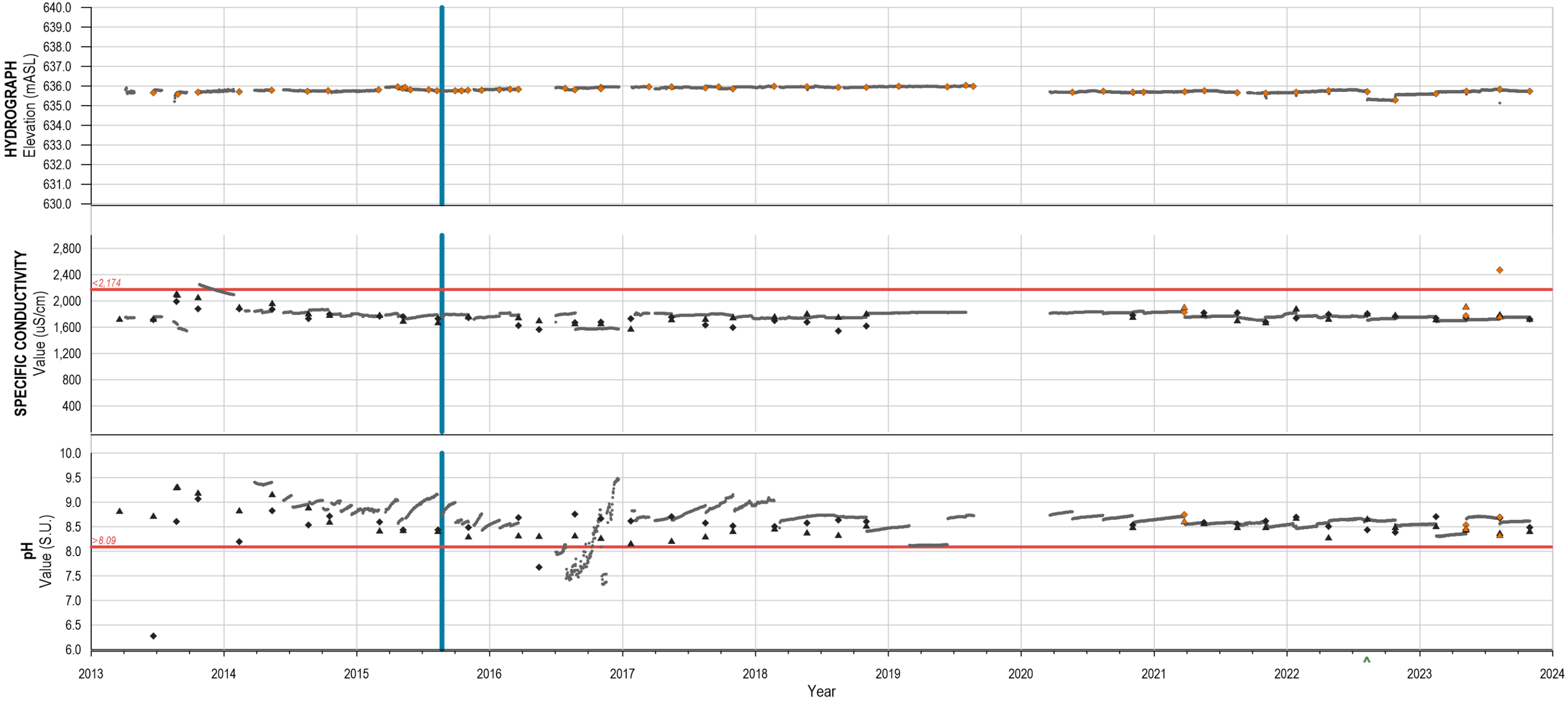

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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2023 Hydrosphere Monitoring Program

Chart No.
E.4

Chart Name
Continuous Water Level and Quality Measurements at UL4/08-19

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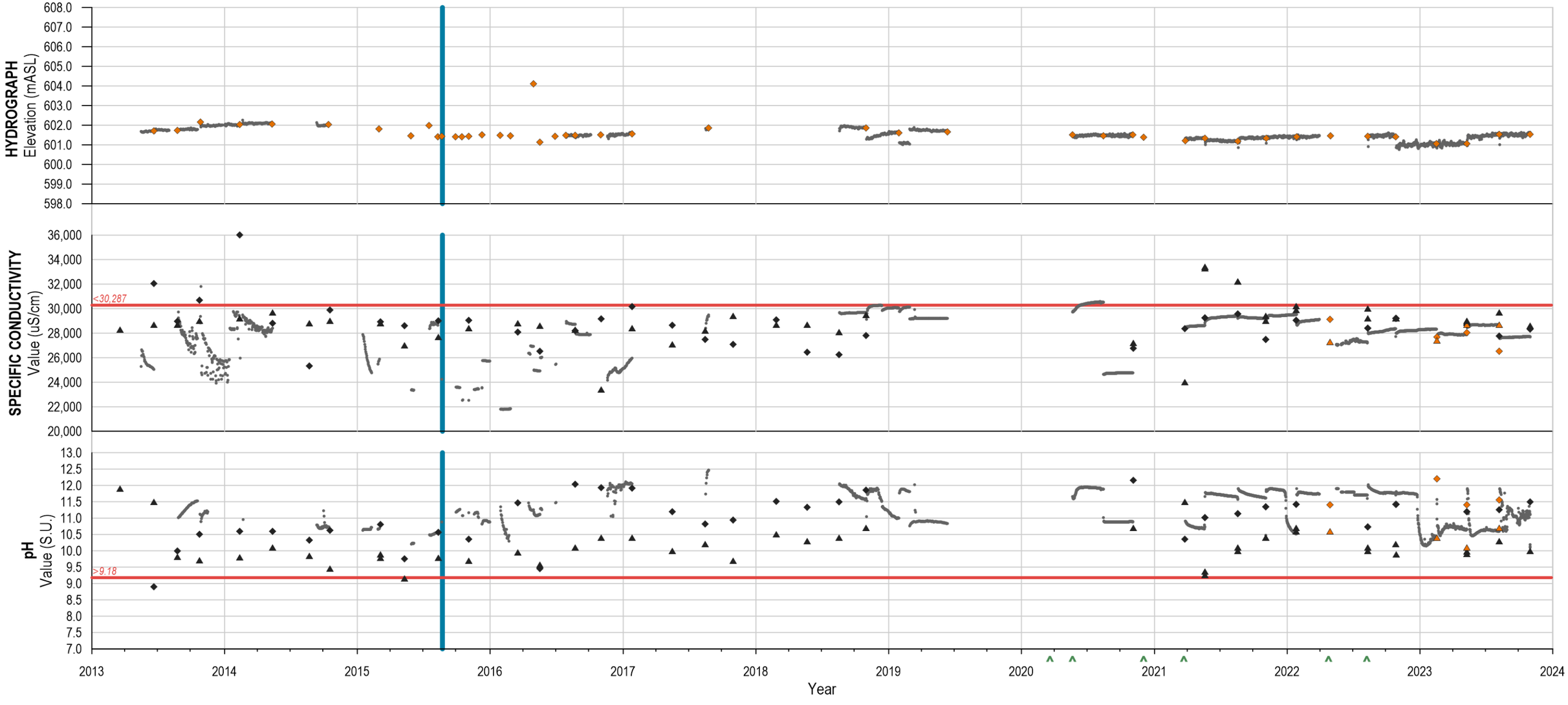

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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2023 Hydrosphere Monitoring Program

Chart No.
E.5

Chart Name
Continuous Water Level and Quality Measurements at 1F1/08-19

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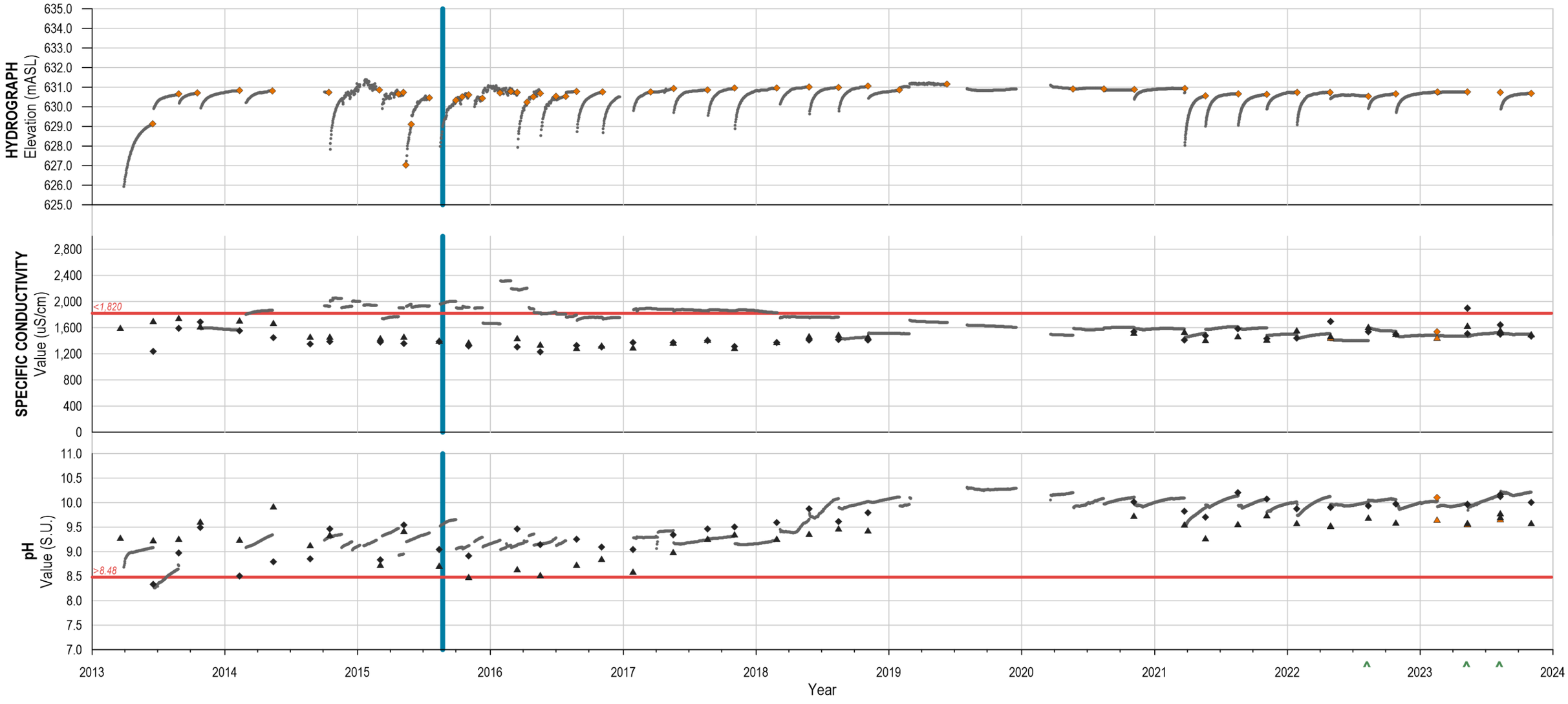

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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Chart No.
E.6

Chart Name
Continuous Water Level and Quality Measurements at UL1/07-11

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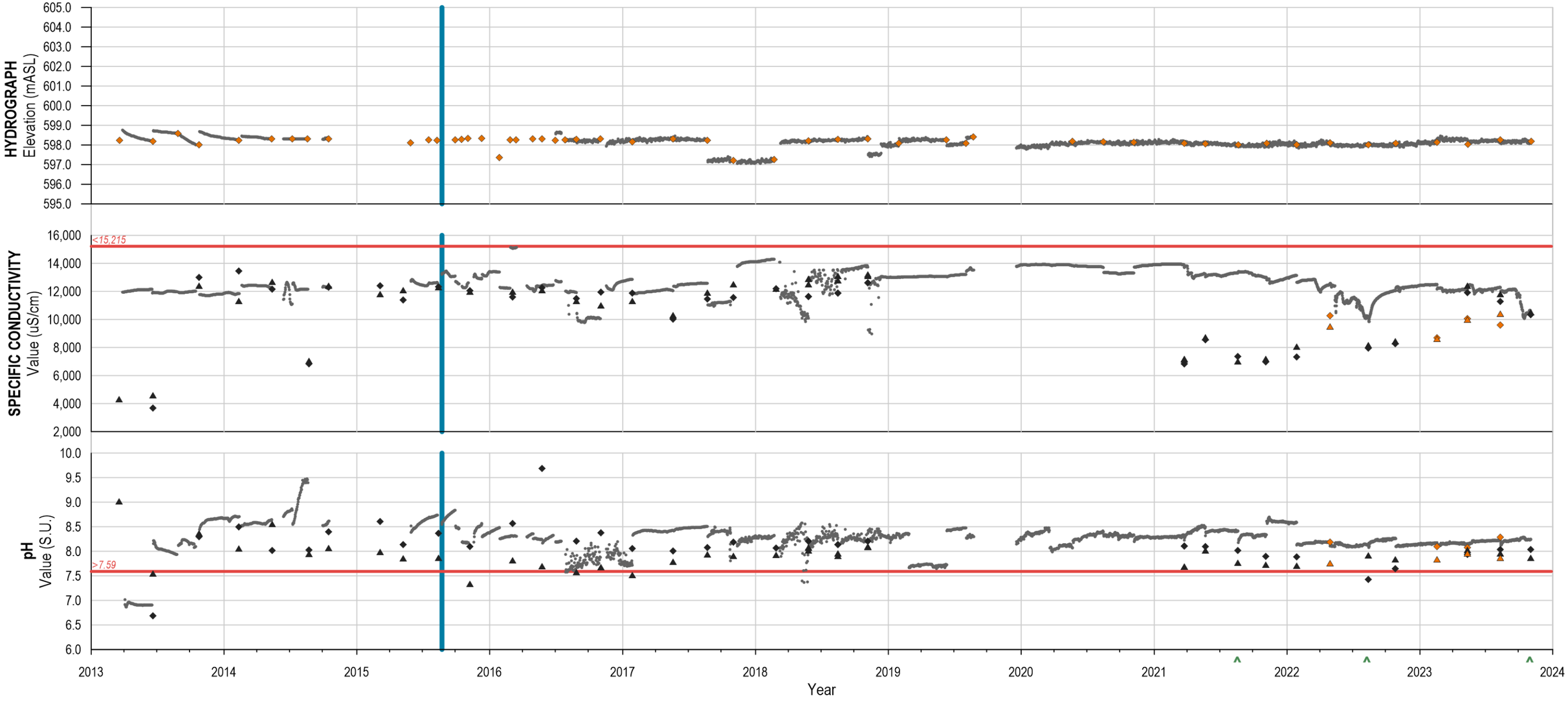

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Aug 23, 2015)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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2023 Hydrosphere Monitoring Program

Chart No.
E.7

Chart Name
Continuous Water Level and Quality Measurements at 1F1/07-11

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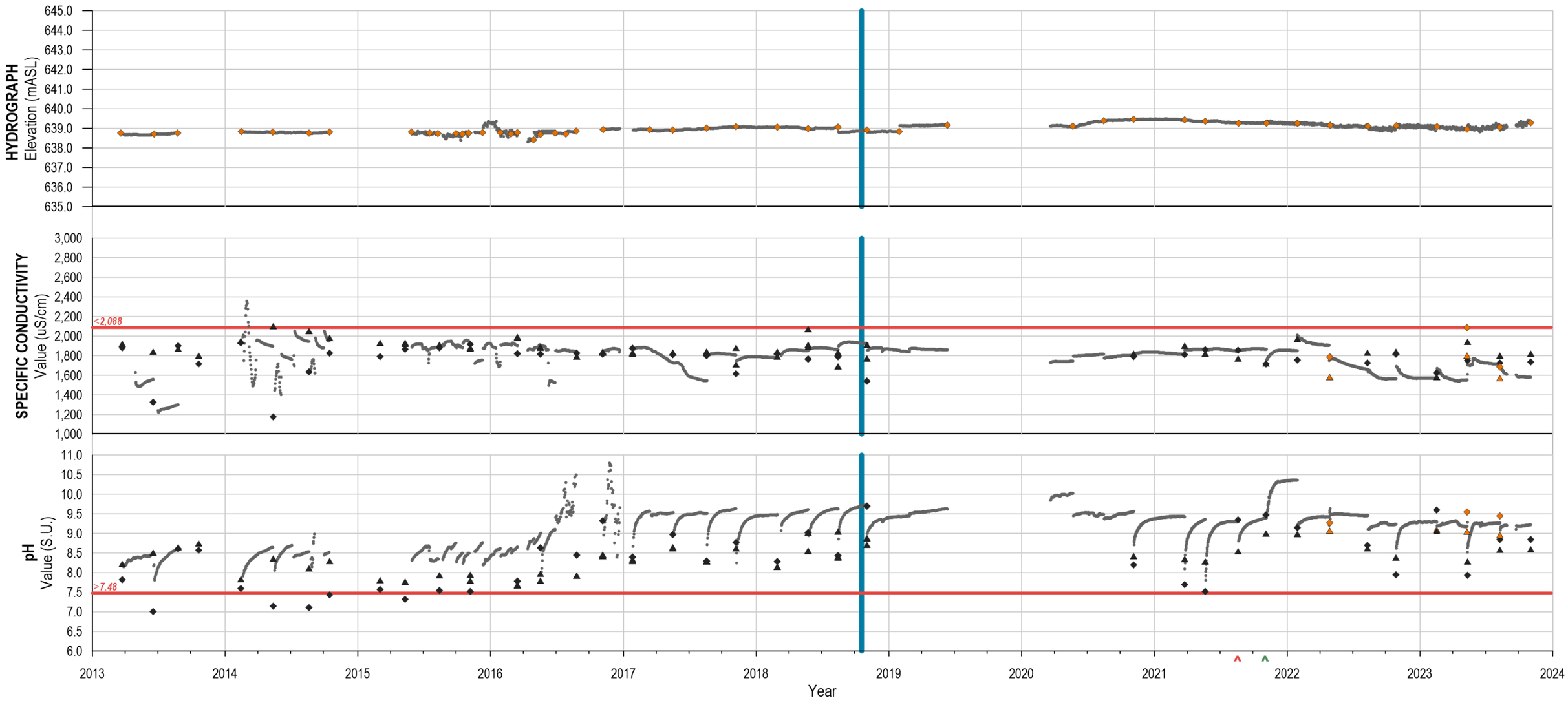

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Oct 18, 2018)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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Chart No.
E.8

Chart Name
Continuous Water Level and Quality Measurements at UL1/05-35

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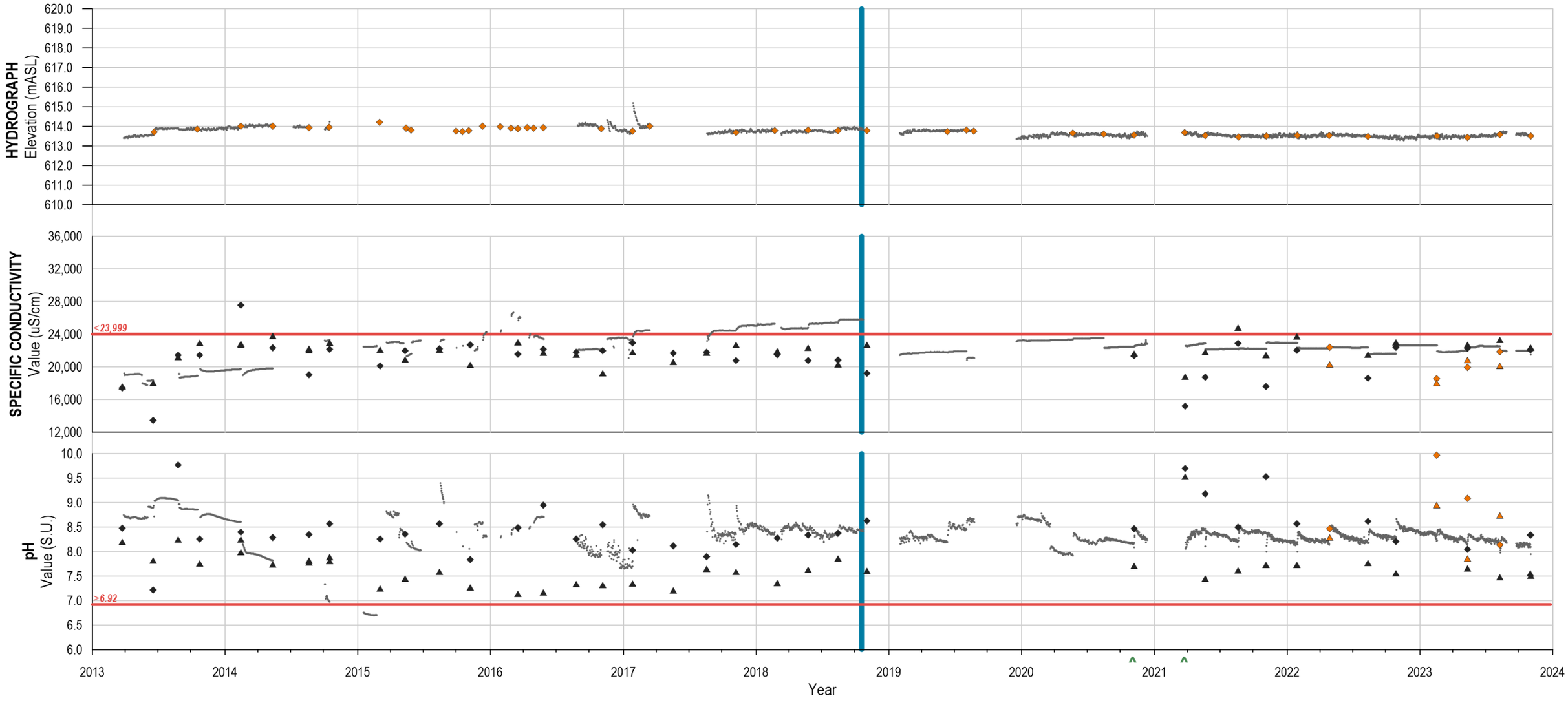

Legend

- Datalogger Results
- Field Results (No Purge)
- Field Results (Purged)
- Laboratory Results (No Purge)
- Laboratory Results (Purged)
- Project CO_2 Injection Date (Oct 18, 2018)
- Pre-Injection Minimum or Maximum Observed Value
- Downhole Datalogger Device/Sensor Change
- Downhole Datalogger Calibration Issue

Notes

mASL - metres Above Sea Level
uS/cm - microSiemens per centimitre

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2023 Hydrosphere Monitoring Program

Chart No.
E.9

Chart Name
Continuous Water Level and Quality Measurements at 1F1/05-35

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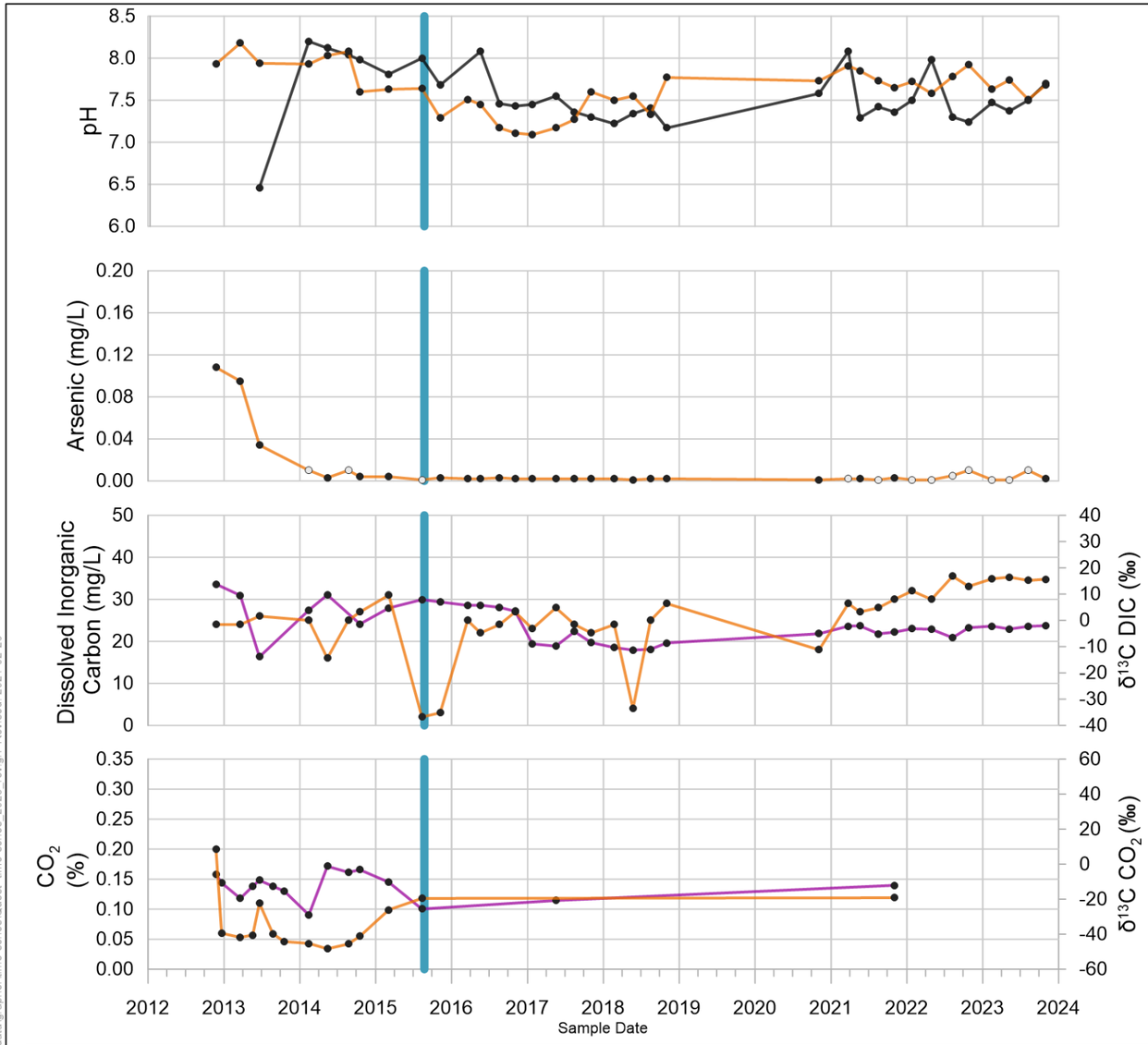
Appendix F Time-Series Concentration Charts





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
1

Chart Name
Time-Series Concentration Data at UL1/08-19

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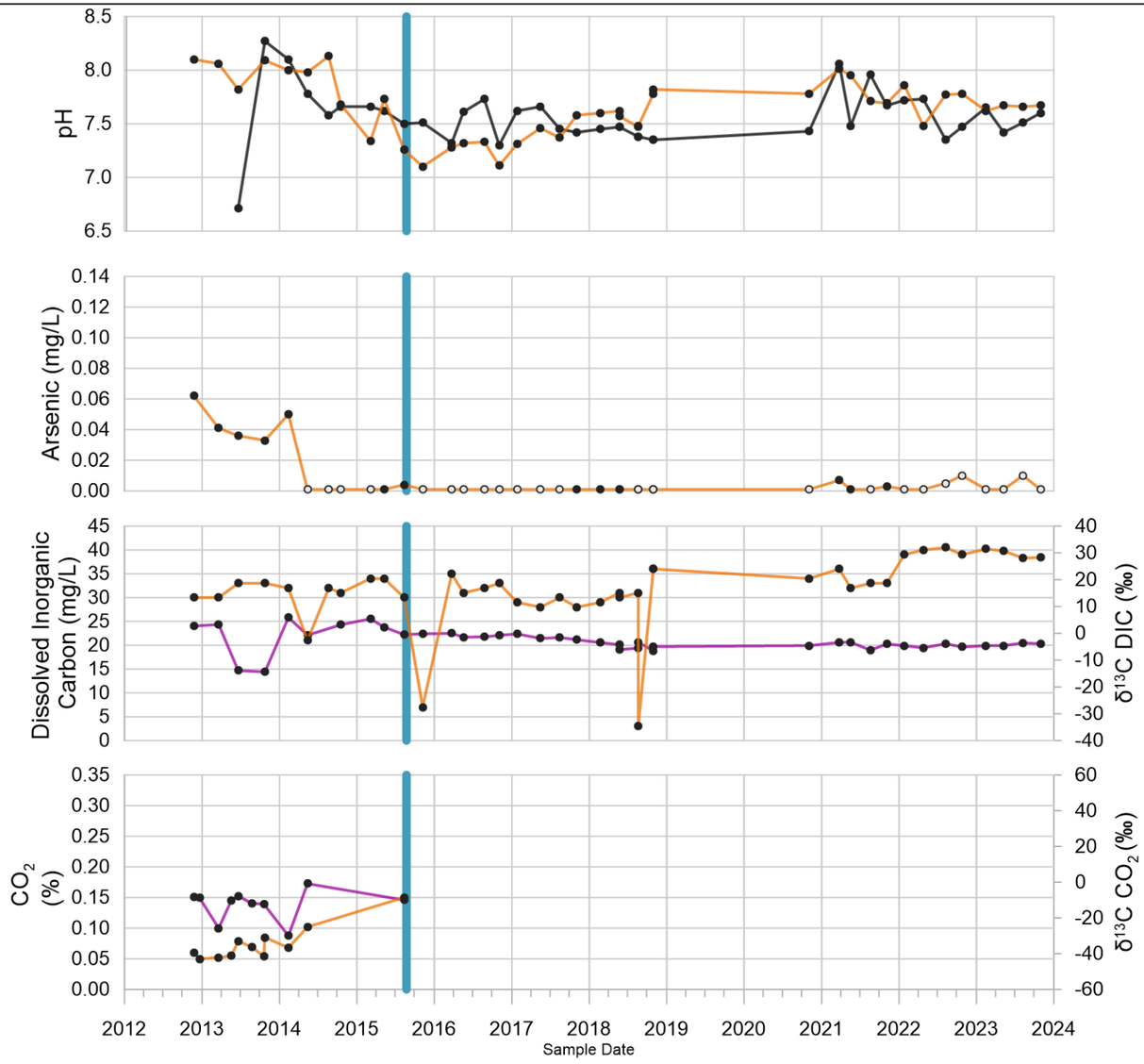

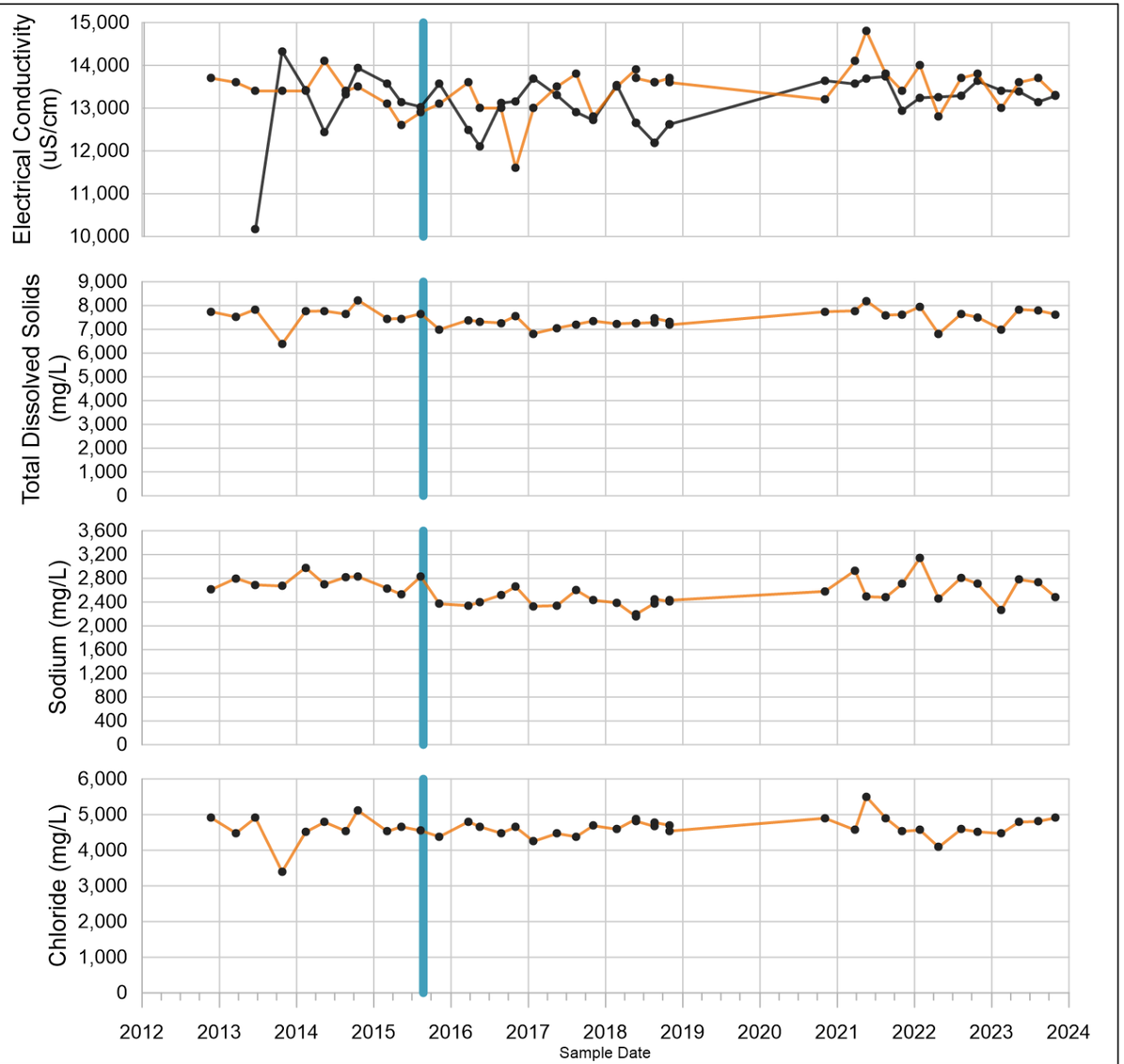

Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Client/Project
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Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
2

Chart Name
Time-Series Concentration Data at UL2/08-19

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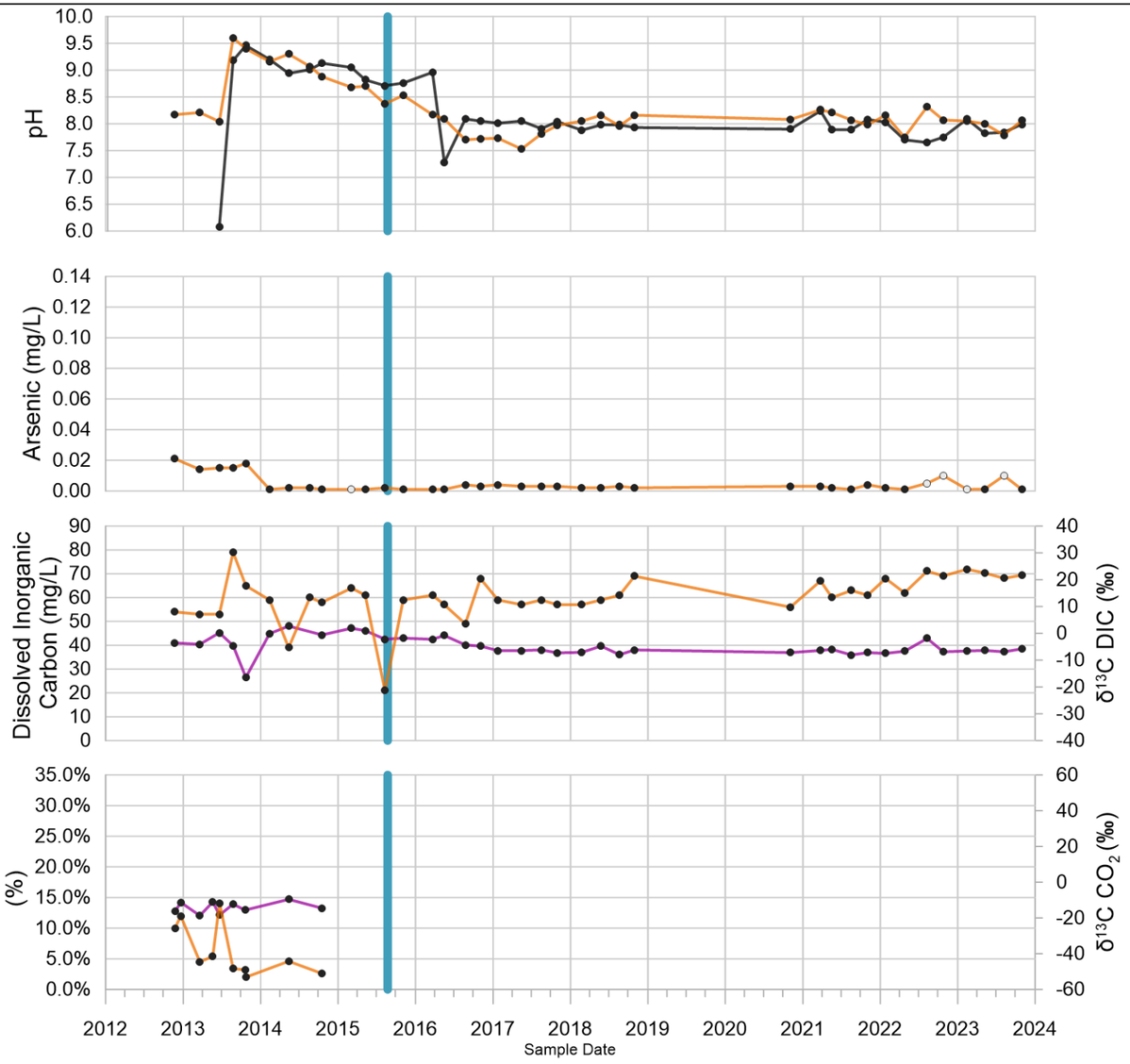
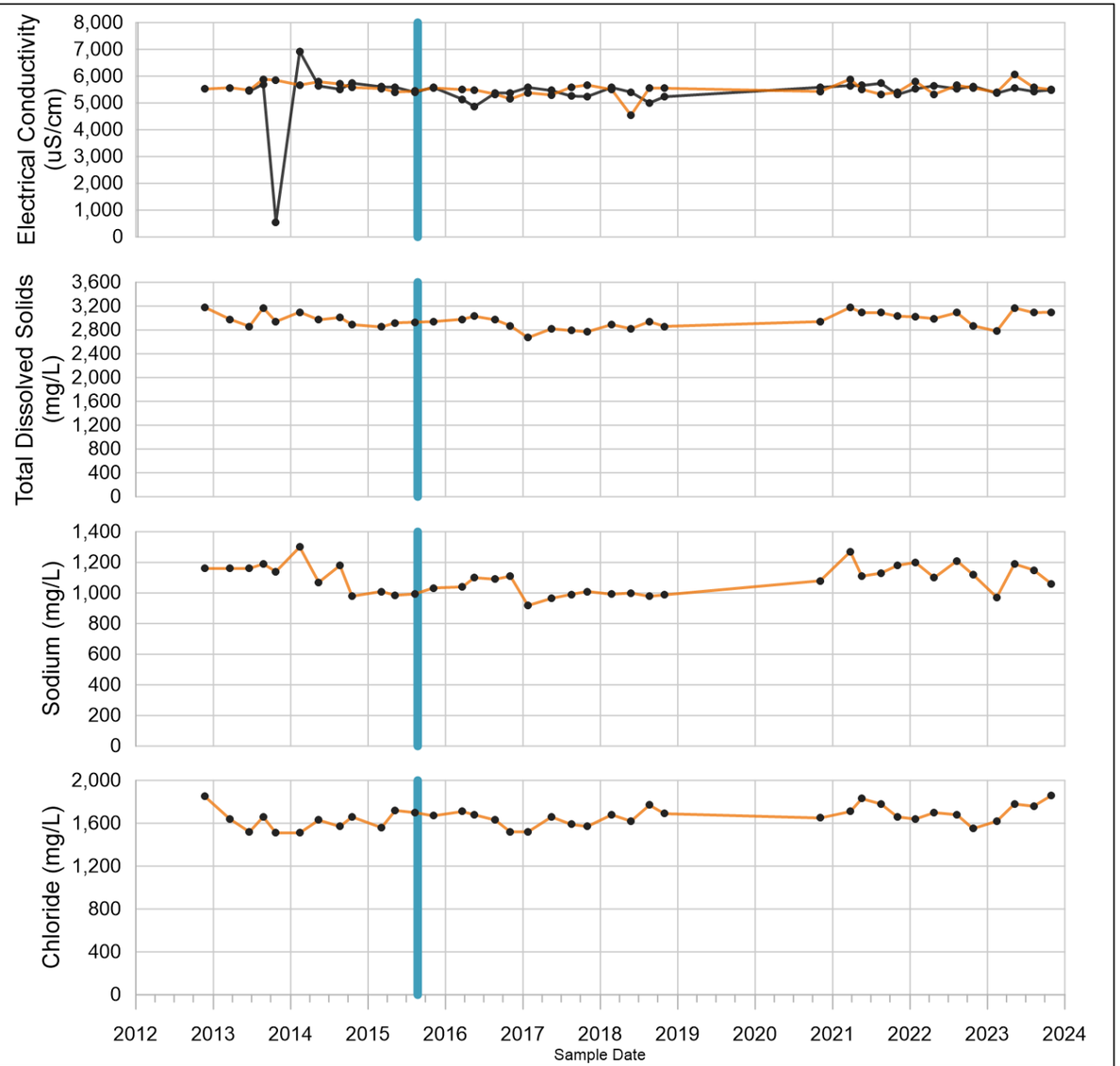




Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants, and agents, from any and all claims arising in any way from the content or provision of the data.

Stantec

Project Location
Alberta

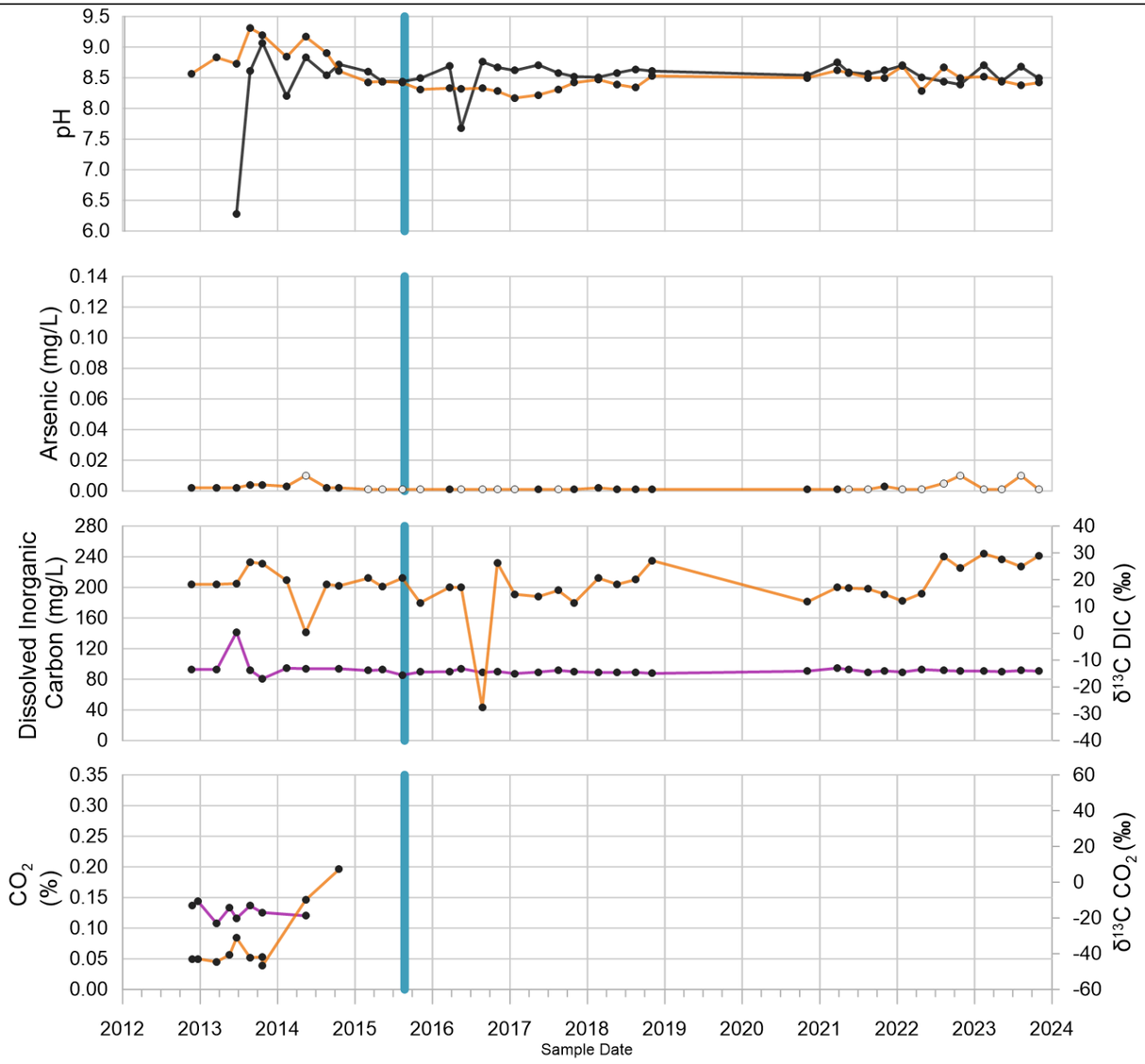
123513522

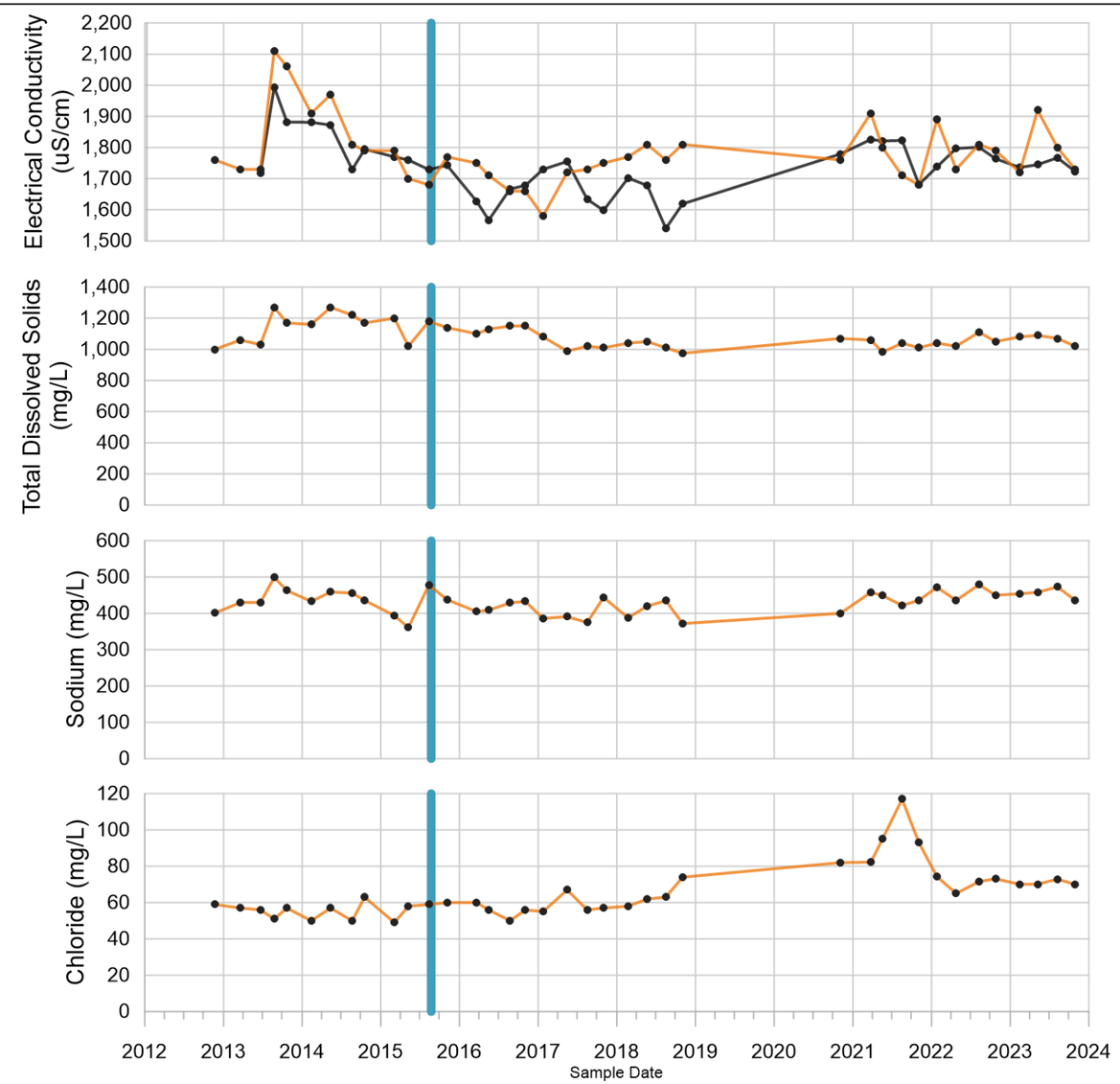
Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
3

Chart Name
Time-Series Concentration Data at UL3/08-19

C:\Users\dheck\Stantec\123513522 - QuestGW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

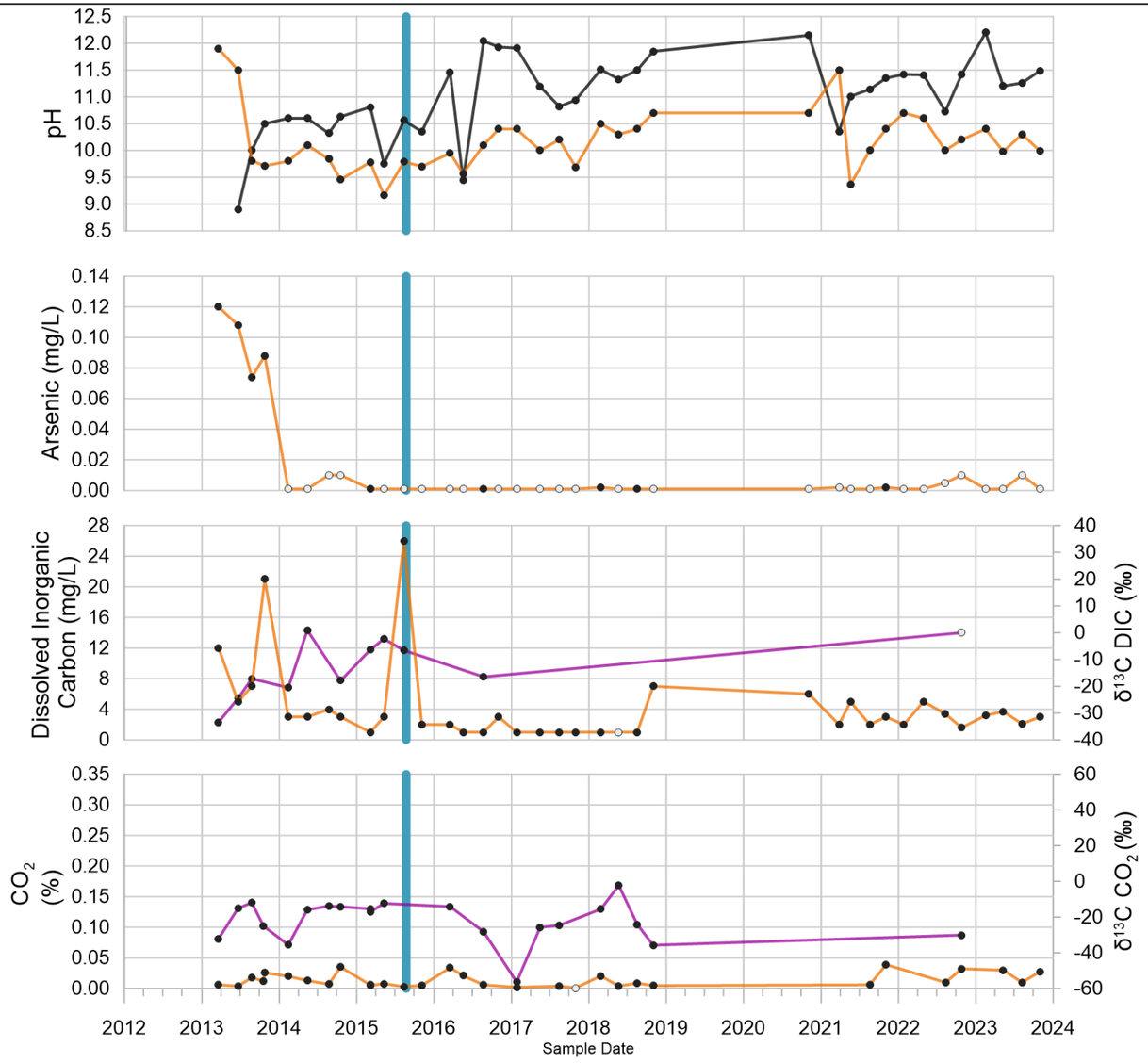
123513522

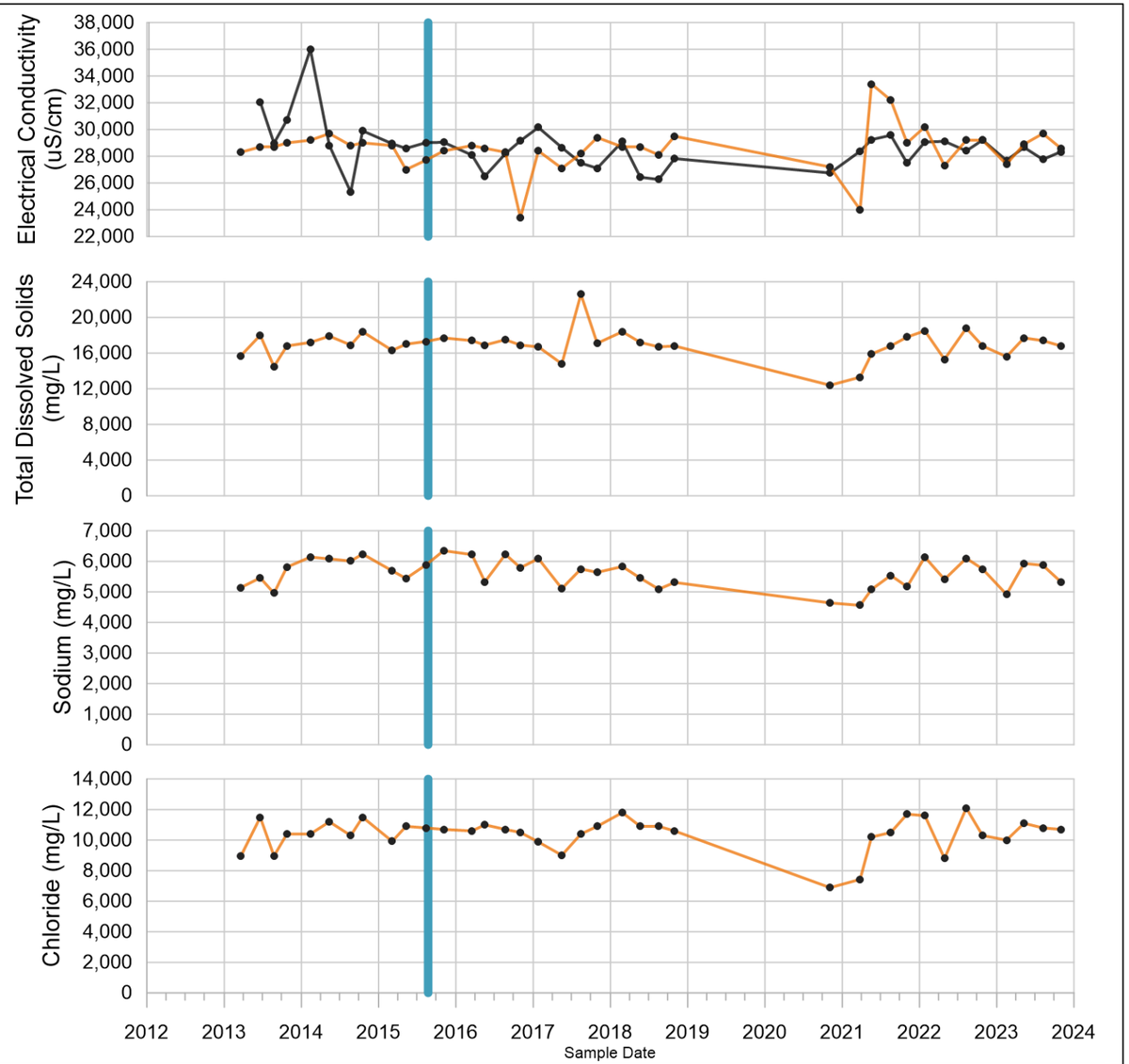
Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
4

Chart Name
Time-Series Concentration Data at UL4/08-19

C:\Users\dheck\Stantec\123513522 - Quest\GW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

123513522

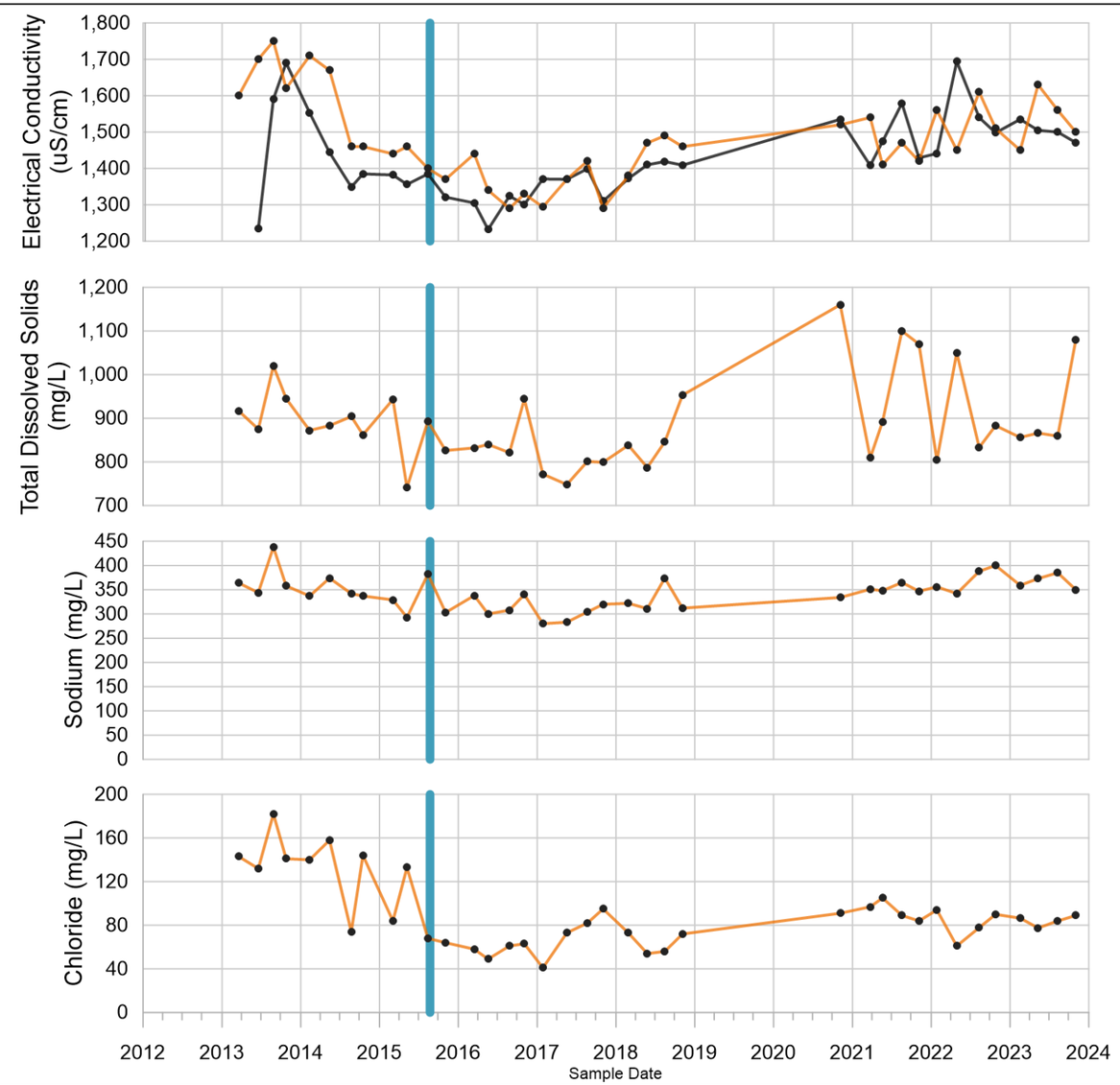
Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
5

Chart Name
Time-Series Concentration Data at 1F1/08-19

C:\Users\dheck\Stantec\123513522 - QuestGW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

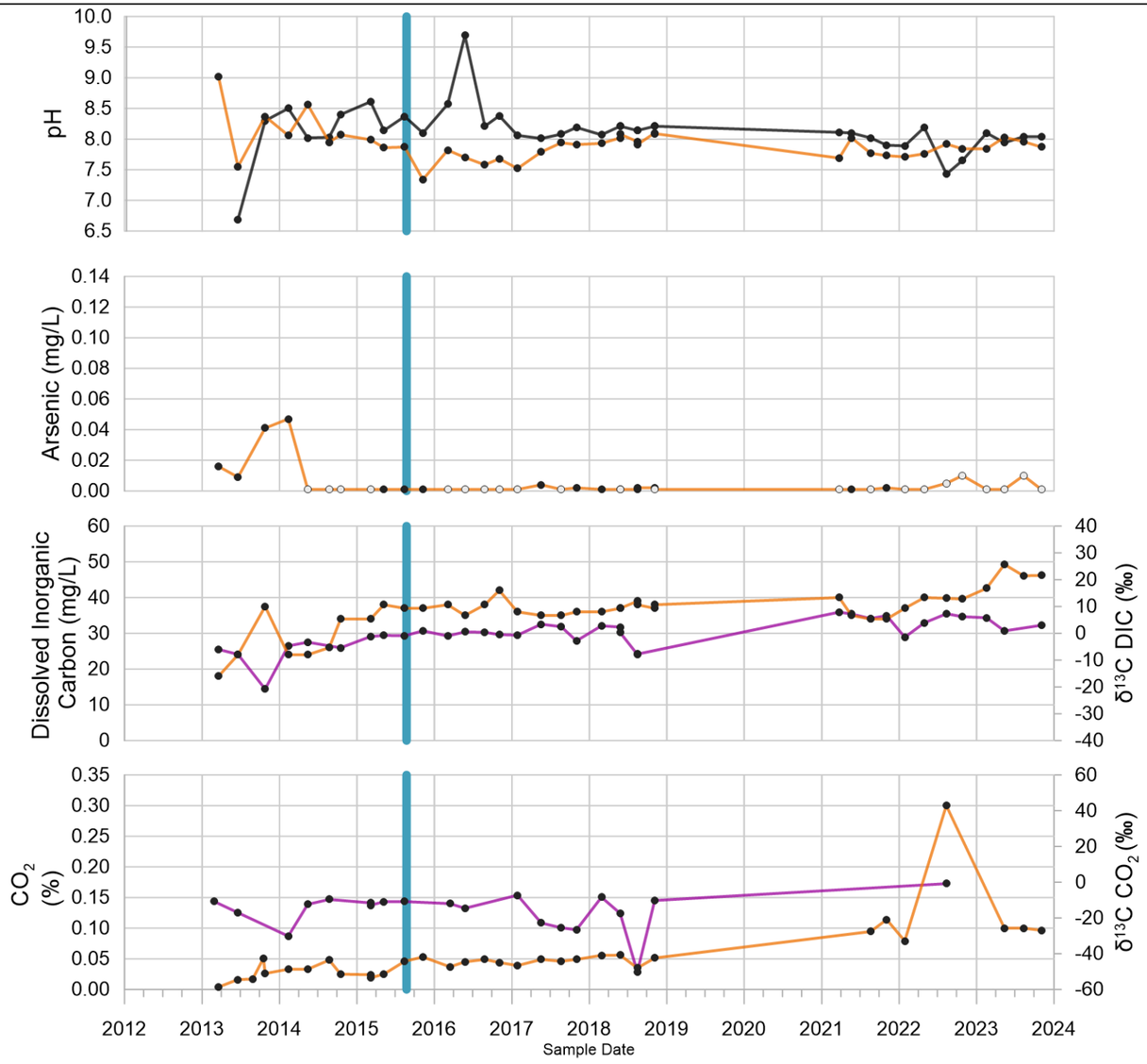
123513522

Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
6

Chart Name
Time-Series Concentration Data at UL1/07-11

C:\Users\dheck\Stantec\123513522 - Quest\GW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Aug 23, 2015)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

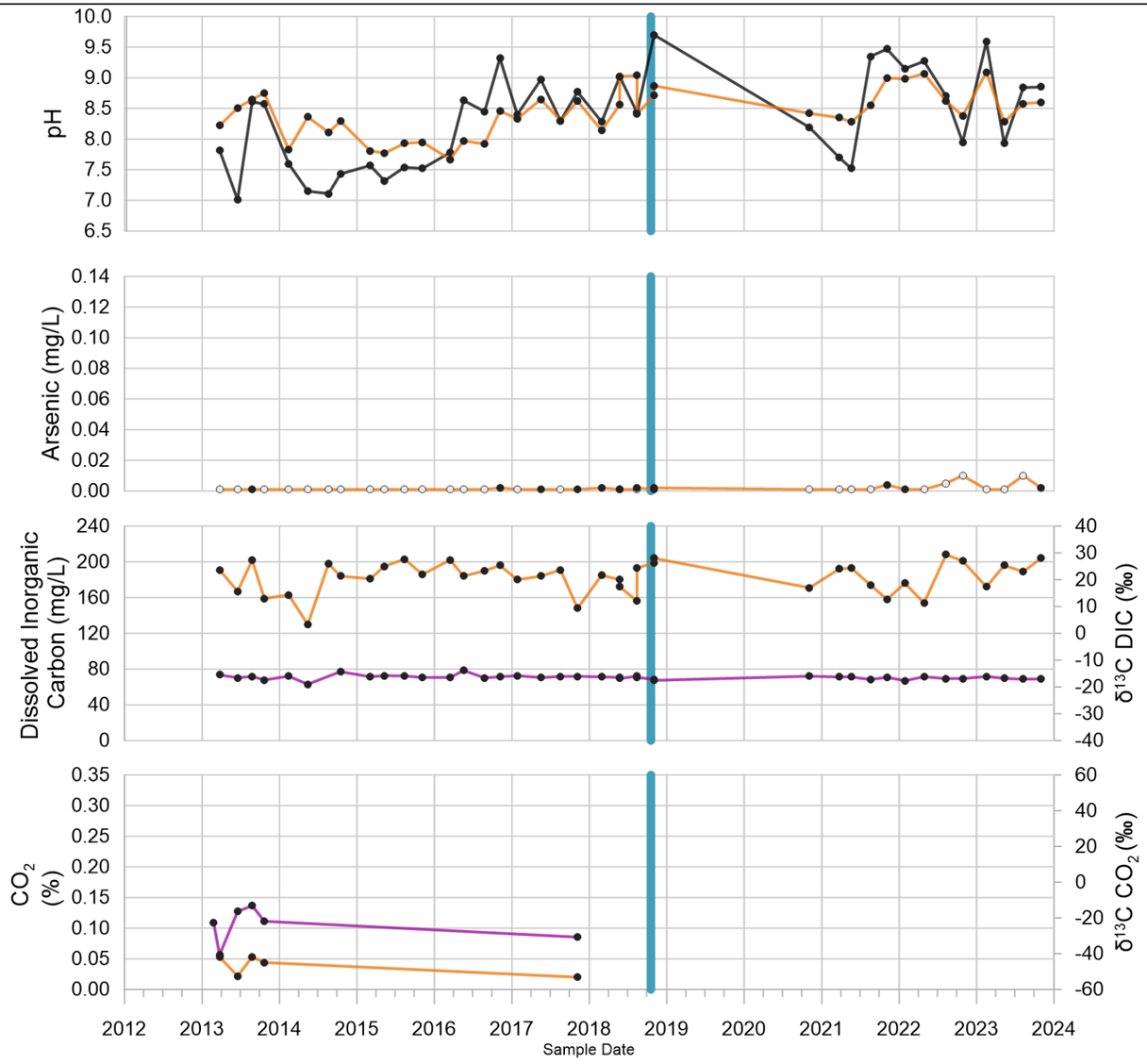
123513522

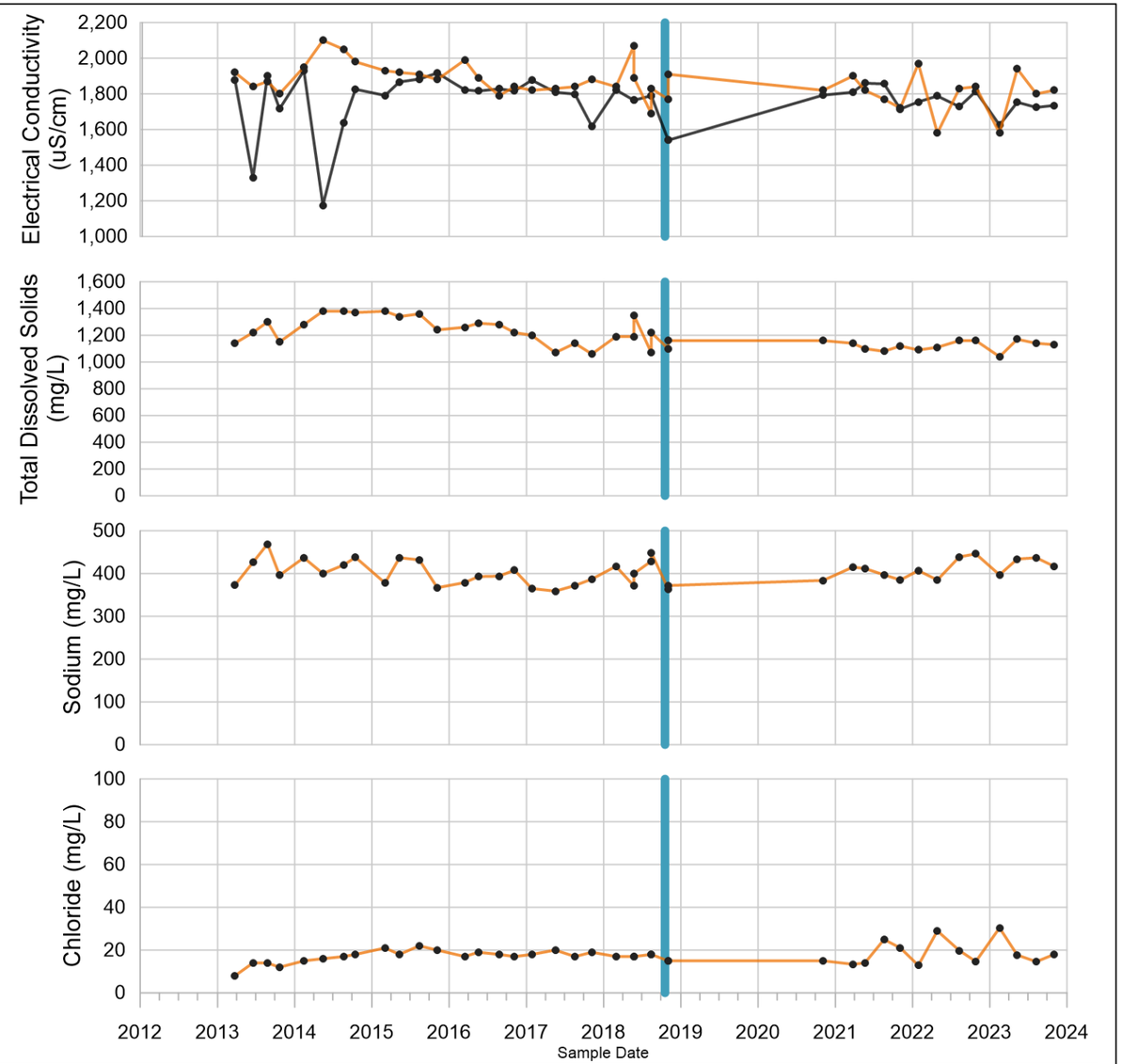
Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
7

Chart Name
Time-Series Concentration Data at 1F1/07-11

C:\Users\dheck\Stantec\123513522 - QuestGW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Oct 18, 2018)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

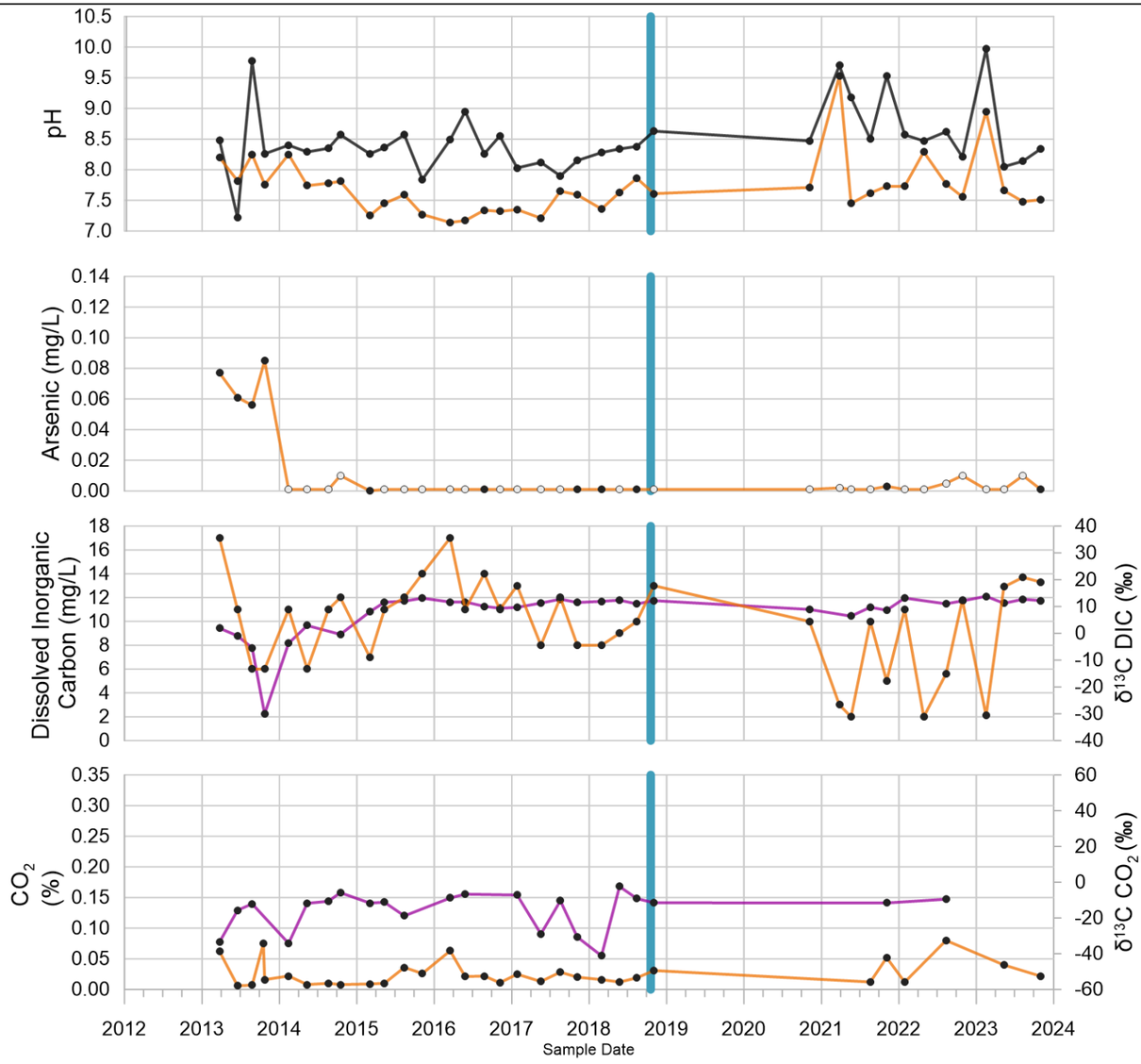
123513522

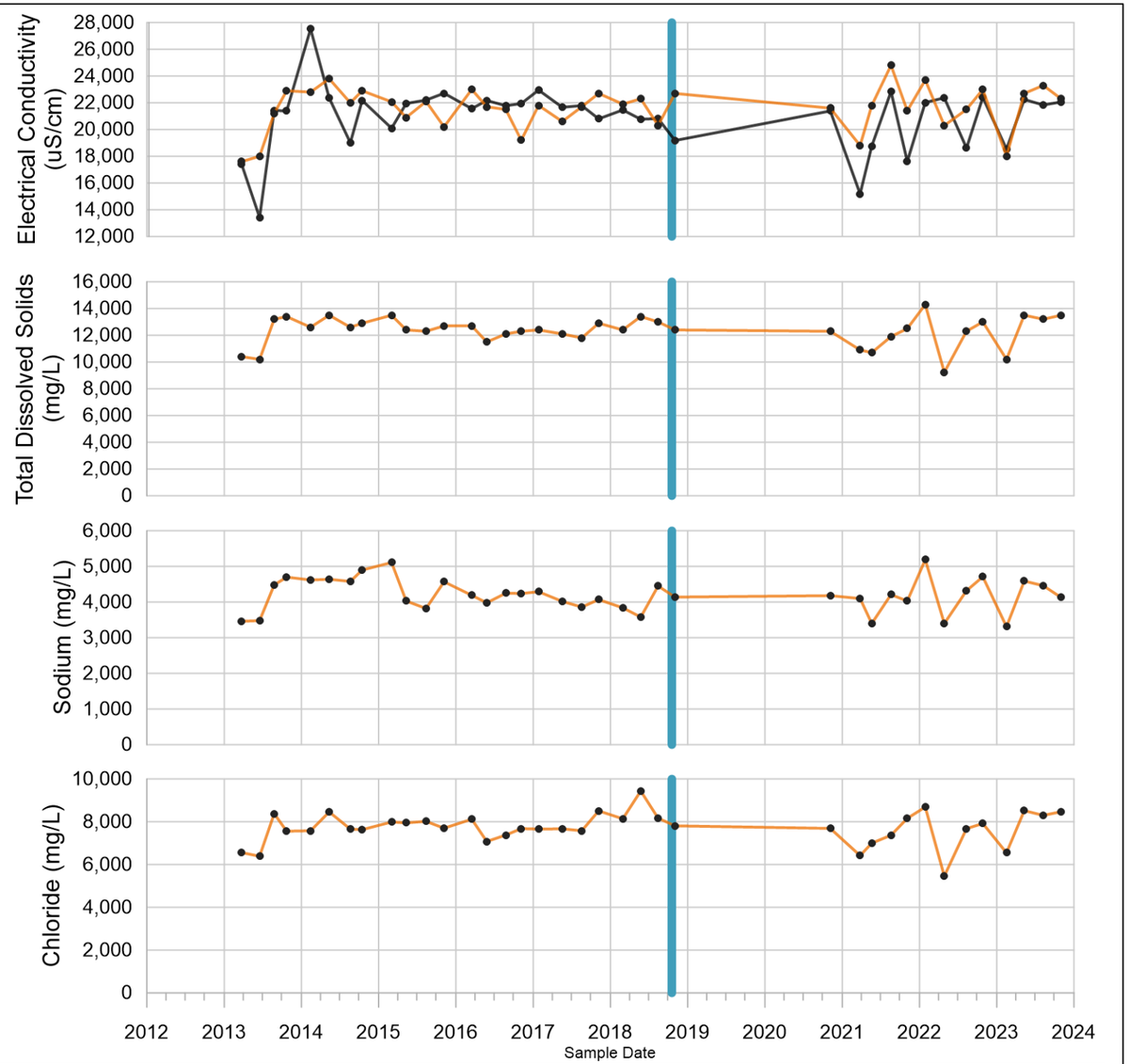
Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
8

Chart Name
Time-Series Concentration Data at UL1/05-35

C:\Users\dheck\Stantec\123513522 - QuestGW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26





Legend

- Sample (Detect/Non-Detect)
- Field Concentration
- Laboratory Concentration
- Isotopic Data
- Project CO_2 Injection Date (Oct 18, 2018)

Notes

uS/cm - microSiemens per centimitre
mg/L - milligram per litre
‰ - per mil

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Stantec

Project Location
Alberta

123513522

Client/Project
Shell Canada Limited
Quest Carbon Capture and Storage Project
2023 Hydrosphere Monitoring Program

Chart No.
9

Chart Name
Time-Series Concentration Data at 1F1/05-35

C:\Users\dheck\Stantec\123513522 - QuestGW - Documents\General\04_data\grapher\time-series\Quest- time-series_2023_rev.grf Revised: 2024-02-26

Appendix G Laboratory Certificates of Analysis

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113
ATTENTION TO: Darren Heck
PROJECT: 123513522
AGAT WORK ORDER: 23E999391
WATER ANALYSIS REVIEWED BY: Thomas Yoo, Report Writer
DATE REPORTED: Mar 01, 2023
PAGES (INCLUDING COVER): 14
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 735-2005

*Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Metals - Dissolved Arsenic

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

				8195920404-W-23Q1	8195920403-W-23Q1	8195920402-W-23Q1	8195920401-W-23Q1	8195920400-W-23Q1	5355921400-W-23Q1	5355921401-W-23Q1	7115920400-W-23Q1
SAMPLE DESCRIPTION:											
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-02-14 13:00	2023-02-14 14:45	2023-02-15 10:30	2023-02-15 12:30	2023-02-16 10:00	2023-02-16 12:30	2023-02-16 15:00	2023-02-17 10:45
Parameter	**Unit**	**G / S**	**RDL**	**4791902**	**4791906**	**4791907**	**4791908**	**4791909**	**4791910**	**4791911**	**4791912**
Dissolved Arsenic	mg/L		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lab Filtration Performed				Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete

				7115920401-W-23Q1	QC-2023-01	QC-2023-02
SAMPLE DESCRIPTION:						
SAMPLE TYPE:				Water	Water	Water
DATE SAMPLED:				2023-02-17 11:45	2023-02-16 16:00	2023-02-16 15:30
Parameter	**Unit**	**G / S**	**RDL**	**4791913**	**4791914**	**4791915**
Dissolved Arsenic	mg/L		0.001	<0.001	<0.001	<0.001
Lab Filtration Performed				Complete	Complete	Complete

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

4791902-4791915 < - Values refer to Report Detection Limit.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories
2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Subcontracted - 13C in DIC Isotope

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

				8195920404-W-	8195920403-W-	8195920402-W-	8195920401-W-	8195920400-W-	5355921400-W-	5355921401-W-	7115920400-W-
			SAMPLE DESCRIPTION:	23Q1	23Q1	23Q1	23Q1	23Q1	23Q1	23Q1	23Q1
			SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water	Water
			DATE SAMPLED:	2023-02-14 13:00	2023-02-14 14:45	2023-02-15 10:30	2023-02-15 12:30	2023-02-16 10:00	2023-02-16 12:30	2023-02-16 15:00	2023-02-17 10:45
Parameter	**Unit**	**G / S**	**RDL**	**4791902**	**4791906**	**4791907**	**4791908**	**4791909**	**4791910**	**4791911**	**4791912**
Subcontracted Analysis				**	**	**	**	**	**	**	**

				7115920401-W-		
			SAMPLE DESCRIPTION:	23Q1	QC-2023-01	QC-2023-02
			SAMPLE TYPE:	Water	Water	Water
			DATE SAMPLED:	2023-02-17 11:45	2023-02-16 16:00	2023-02-16 15:30
Parameter	**Unit**	**G / S**	**RDL**	**4791913**	**4791914**	**4791915**
Subcontracted Analysis				**	**	**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

4791902-4791915 Note: Performed by subcontracted laboratory.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis - DIC

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

				8195920404-W-		8195920403-W-	8195920402-W-	8195920401-W-	8195920400-W-	5355921400-W-	
			SAMPLE DESCRIPTION:	23Q1		23Q1	23Q1	23Q1	23Q1	23Q1	
			SAMPLE TYPE:	Water		Water	Water	Water	Water	Water	
			DATE SAMPLED:	2023-02-14 13:00		2023-02-14 14:45	2023-02-15 10:30	2023-02-15 12:30	2023-02-16 10:00	2023-02-16 12:30	
Parameter	**Unit**	**G / S**	**RDL**	**4791902**	**RDL**	**4791906**	**4791907**	**4791908**	**4791909**	**4791910**	
Dissolved Inorganic Carbon	mg/L		1.5	244	0.5	71.9	40.2	34.9	3.2	2.1	

				5355921401-W-		7115920400-W-		7115920401-W-			
			SAMPLE DESCRIPTION:	23Q1		23Q1		23Q1	QC-2023-01		QC-2023-02
			SAMPLE TYPE:	Water		Water		Water	Water		Water
			DATE SAMPLED:	2023-02-16 15:00		2023-02-17 10:45		2023-02-17 11:45	2023-02-16 16:00		2023-02-16 15:30
Parameter	**Unit**	**G / S**	**RDL**	**4791911**	**RDL**	**4791912**	**RDL**	**4791913**	**4791914**	**RDL**	**4791915**
Dissolved Inorganic Carbon	mg/L		1.0	172	0.5	42.6	1.0	140	169	0.5	<0.5

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

				SAMPLE DESCRIPTION:		8195920404-W-23Q1		8195920403-W-23Q1		8195920402-W-23Q1	8195920401-W-23Q1		8195920400-W-23Q1
				SAMPLE TYPE:		Water		Water		Water	Water		Water
				DATE SAMPLED:		2023-02-14 13:00		2023-02-14 14:45		2023-02-15 10:30	2023-02-15 12:30		2023-02-16 10:00
Parameter	**Unit**	**G / S**	**RDL**		**RDL**	**4791902**	**RDL**	**4791906**	**RDL**	**4791907**	**4791908**	**RDL**	**4791909**
pH	pH Units	7.0-10.5	N/A	8.52	N/A	8.05	N/A	7.62	7.63	N/A	10.4		
p - Alkalinity (as CaCO3)	mg/L		5	22	5	<5	5	<5	<5	5	88		
T - Alkalinity (as CaCO3)	mg/L		5	908	5	264	5	153	130	5	112		
Bicarbonate	mg/L		5	1070	5	322	5	192	158	5	<5		
Carbonate	mg/L		5	26	5	<5	5	<5	<5	5	29		
Hydroxide	mg/L		5	<5	5	<5	5	<5	<5	5	22		
Electrical Conductivity	uS/cm		5	1720	5	5400	5	13000	17900	5	27400		
Chloride	mg/L	(250)	1.0	70.1	1.5	1620	6.0	4470	5840	12	10000		
Fluoride	mg/L	1.5	0.01	0.81	0.03	0.34	0.1	<0.1	0.1	0.1	<0.1		
Nitrate	mg/L	45	0.5	<0.5	0.5	<0.5	1.0	<1.0	<1.0	1.0	1.3		
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	0.02	0.29		
Nitrite	mg/L	3	0.05	<0.05	0.10	<0.10	0.40	<0.40	<0.40	0.40	<0.40		
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01		
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	0.02	0.29		
Sulfate	mg/L	(500)	1.0	<1.0	1.0	2.0	1.0	20.5	44.4	1.0	4.1		
Dissolved Calcium	mg/L		0.3	3.7	0.3	19.2	0.3	114	199	0.3	484		
Dissolved Magnesium	mg/L		0.2	0.5	0.2	3.3	0.2	19.2	42.9	0.2	8.4		
Dissolved Sodium	mg/L	(200)	0.6	454	1.0	972	1.0	2270	3120	1.0	4920		
Dissolved Potassium	mg/L		0.6	4.2	0.6	9.6	0.6	14.6	28.5	0.6	84.9		
Dissolved Iron	mg/L	(0.3)	0.1	1.0	0.1	3.1	0.1	3.3	0.8	0.1	<0.1		
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.035	0.005	**0.148**	0.005	**0.254**	0.008	0.005	<0.005		
Sodium Adsorption Ratio				58.7		53.9		51.8	52.3		60.6		
Calculated TDS	mg/L		0.6	1080	0.6	2780	0.6	7000	9350	0.6	15600		
Hardness	mg CaCO3/L		0.5	11.3	0.5	61.5	0.5	364	674	0.5	1240		
Ion Balance	%		1	98	1	86	1	82	89	1	85		
Lab Filtration on Routine for IC				Complete		Complete		Complete	Complete		Complete		
Lab Filtration on Routine for Metals				Complete		Complete		Complete	Complete		Complete		

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

				SAMPLE DESCRIPTION:		5355921401-W-23Q1		7115920400-W-23Q1		7115920401-W-23Q1	QC-2023-01
				SAMPLE TYPE:		Water		Water		Water	Water
				DATE SAMPLED:		2023-02-16 15:00		2023-02-17 10:45		2023-02-17 11:45	2023-02-16 16:00
Parameter	**Unit**	**G / S**	**RDL**	**4791910**	**RDL**	**4791911**	**RDL**	**4791912**	**RDL**	**4791913**	**4791914**
pH	pH Units	7.0-10.5	N/A	8.95	N/A	9.09	N/A	7.84	N/A	9.65	9.06
p - Alkalinity (as CaCO3)	mg/L		5	14	5	60	5	<5	5	141	59
T - Alkalinity (as CaCO3)	mg/L		5	31	5	670	5	179	5	664	668
Bicarbonate	mg/L		5	12	5	683	5	229	5	477	684
Carbonate	mg/L		5	16	5	72	5	<5	5	169	71
Hydroxide	mg/L		5	<5	5	<5	5	<5	5	<5	<5
Electrical Conductivity	uS/cm		5	18000	5	1580	5	8620	5	1450	1580
Chloride	mg/L	(250)	6.0	6550	1.0	30.4	3.0	2850	1.0	86.5	29.2
Fluoride	mg/L	1.5	0.1	0.1	0.01	0.12	0.06	0.10	0.01	1.25	0.13
Nitrate	mg/L	45	1.0	4.0	0.5	<0.5	0.5	<0.5	0.5	<0.5	<0.5
Nitrate-N	mg/L	10	0.02	0.90	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02
Nitrite	mg/L	3	0.40	<0.40	0.05	<0.05	0.20	<0.20	0.05	<0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	0.90	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02
Sulfate	mg/L	(500)	1.0	13.7	1.0	186	1.0	5.7	1.0	2.3	189
Dissolved Calcium	mg/L		0.3	185	0.3	4.3	0.3	62.7	0.3	1.6	4.3
Dissolved Magnesium	mg/L		0.2	56.2	0.2	6.9	0.2	19.2	0.2	0.3	7.0
Dissolved Sodium	mg/L	(200)	1.0	3310	0.6	397	1.0	1620	0.6	359	400
Dissolved Potassium	mg/L		0.6	15.7	0.6	5.6	0.6	16.9	0.6	2.3	5.5
Dissolved Iron	mg/L	(0.3)	0.1	1.8	0.1	<0.1	0.1	5.2	0.1	<0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	**0.454**	0.005	0.008	0.005	**0.329**	0.005	0.005	0.007
Sodium Adsorption Ratio				54.7		27.6		45.9		68.3	27.7
Calculated TDS	mg/L		0.6	10200	0.6	1040	0.6	4690	0.6	856	1040
Hardness	mg CaCO3/L		0.5	693	0.5	39.2	0.5	236	0.5	5.2	39.6
Ion Balance	%		1	85	1	99	1	90	1	99	100
Lab Filtration on Routine for IC				Complete		Complete		Complete		Complete	Complete
Lab Filtration on Routine for Metals				Complete		Complete		Complete		Complete	Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

		SAMPLE DESCRIPTION:		QC-2023-02
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-02-16 15:30
Parameter	**Unit**	**G / S**	**RDL**	**4791915**
pH	pH Units	7.0-10.5	N/A	**6.72**
p - Alkalinity (as CaCO3)	mg/L		5	<5
T - Alkalinity (as CaCO3)	mg/L		5	<5
Bicarbonate	mg/L		5	7
Carbonate	mg/L		5	<5
Hydroxide	mg/L		5	<5
Electrical Conductivity	uS/cm		5	<5
Chloride	mg/L	(250)	1.0	<1.0
Fluoride	mg/L	1.5	0.01	<0.01
Nitrate	mg/L	45	0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02
Nitrite	mg/L	3	0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02
Sulfate	mg/L	(500)	1.0	<1.0
Dissolved Calcium	mg/L		0.3	<0.3
Dissolved Magnesium	mg/L		0.2	<0.2
Dissolved Sodium	mg/L	(200)	0.6	1.2
Dissolved Potassium	mg/L		0.6	<0.6
Dissolved Iron	mg/L	(0.3)	0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	<0.005
Sodium Adsorption Ratio				0.42
Calculated TDS	mg/L		0.6	4.6
Hardness	mg CaCO3/L		0.5	<0.5
Ion Balance	%		1	45
Lab Filtration on Routine for IC				Complete
Lab Filtration on Routine for Metals				Complete

Certified By:

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AGAT WORK ORDER: 23E999391

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations

DATE RECEIVED: 2023-02-17

DATE REPORTED: 2023-03-01

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to 2020 Canadian Drinking Water Quality MAC (AO)
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

4791902-4791914 < - Values refer to Report Detection Limits.
SAR is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.
Ion Balance is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Hardness is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Calculated TDS is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

4791915 < - Values refer to Report Detection Limits.
SAR is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.
Ion Balance is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Hardness is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Calculated TDS is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Note: Results (Bicarbonate, Dissolved Sodium) were verified by repeat analysis.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Mar 01, 2023

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations															
pH	4793315		7.31	7.28	0.4%	N/A	101%	90%	110%						
p - Alkalinity (as CaCO3)	4793315		<5	<5	NA	< 5	NA	80%	120%						
T - Alkalinity (as CaCO3)	4793315		258	256	0.7%	< 5	106%	80%	120%						
Bicarbonate	4793315		332	329	0.9%	< 5	NA								
Carbonate	4793315		<5	<5	NA	< 5	NA								
Hydroxide	4793315		<5	<5	NA	< 5	NA								
Electrical Conductivity	4793315		903	904	0.1%	< 5	98%	90%	110%						
Chloride	4791902	4791902	68.2	68.7	0.7%	< 1.0	94%	70%	130%	89%	80%	120%	NA	70%	130%
Fluoride	4791902	4791902	0.58	0.56	2.6%	< 0.01	93%	70%	130%	86%	80%	120%	96%	70%	130%
Nitrate	4791902	4791902	<0.5	<0.5	NA	< 0.5	96%	70%	130%	96%	80%	120%	97%	70%	130%
Nitrite	4791902	4791902	<0.20	<0.20	NA	< 0.05	96%	70%	130%	94%	80%	120%	94%	70%	130%
Sulfate	4791902	4791902	4.8	4.7	NA	< 1.0	98%	70%	130%	101%	80%	120%	96%	70%	130%
Dissolved Calcium	4791906	4791906	19.2	18.9	2.1%	< 0.3	NA	70%	130%	107%	80%	120%	NA	70%	130%
Dissolved Magnesium	4791906	4791906	3.3	3.4	0.5%	< 0.2	NA	70%	130%	94%	80%	120%	NA	70%	130%
Dissolved Sodium	4791906	4791906	900	959	6.3%	3.0	NA	70%	130%	NA	80%	120%	NA	70%	130%
Dissolved Potassium	4791906	4791906	9.6	9.5	0.5%	< 0.6	NA	70%	130%	101%	80%	120%	NA	70%	130%
Dissolved Iron	4791906	4791906	3.1	3.1	2.0%	< 0.1	NA	70%	130%	106%	80%	120%	NA	70%	130%
Dissolved Manganese	4791906	4791906	0.148	0.146	1.3%	< 0.005	NA	70%	130%	104%	80%	120%	NA	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

Water Package - Routine Chemistry Water Analysis - Lab Filtered Cations															
Chloride	4791915	4791915	2.7	2.6	NA	< 1.0	96%	70%	130%	91%	80%	120%	95%	70%	130%
Fluoride	4791915	4791915	<0.01	<0.01	NA	< 0.01	96%	70%	130%	92%	80%	120%	91%	70%	130%
Nitrate	4791915	4791915	<0.5	<0.5	NA	< 0.5	98%	70%	130%	97%	80%	120%	97%	70%	130%
Nitrite	4791915	4791915	<0.05	<0.05	NA	< 0.05	99%	70%	130%	95%	80%	120%	93%	70%	130%
Sulfate	4791915	4791915	<1.0	<1.0	NA	< 1.0	101%	70%	130%	102%	80%	120%	99%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

Metals - Dissolved Arsenic															
Dissolved Arsenic	4793096		<0.01	<0.01	NA	< 0.001	NA	70%	130%	101%	80%	120%	100%	70%	130%

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis (Continued)

RPT Date: Mar 01, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

Water Analysis - DIC															
Dissolved Inorganic Carbon	4791908	4791908	34.9	35.0	0.3%	< 0.5	113%	80%	120%	116%	80%	120%	NA	80%	120%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

Certified By:

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E999391

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Arsenic	INST 0141	SM 3125 B	ICP-MS
Lab Filtration Performed			N/A
Subcontracted Analysis		Subcontracted	ION CHROMATOGRAPH
Dissolved Inorganic Carbon	INST 0170	SM 5310 B	COMBUSTION
pH	INST 0101, INST 0104	SM 4500 H+	PH METER
p - Alkalinity (as CaCO3)	INST-0100, INST-0101	SM 2320 B	TITRATION
T - Alkalinity (as CaCO3)	INST 0101	SM 2320 B	TITRATION
Bicarbonate	INST 0101	SM 2320 B	PC TITRATE
Carbonate	INST 0101	SM 2320 B	PC TITRATE
Hydroxide	INST 0101	SM 2320 B	PC TITRATE
Electrical Conductivity	INST 0101, INST 0120	SM 2510 B	CONDUCTIVITY METER
Chloride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate-N	INST 0150	SM 4110 B	CALCULATION
Nitrite	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrite-N	INST 0150	SM 4110 B	CALCULATION
Nitrate+Nitrite - Nitrogen	INST 0150	SM 4110 B	CALCULATION
Sulfate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Dissolved Calcium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Magnesium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Sodium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Potassium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Iron	INST 0140	SM 3120B – R	ICP/OES
Dissolved Manganese	INST 0140	SM 3120B – R	ICP/OES
Sodium Adsorption Ratio		CARTER & GREGORICH 2007	CALCULATION
Calculated TDS		SM 1030E	CALCULATION
Hardness		SM 2340 B	CALCULATION
Ion Balance		SM 1030E	CALCULATION
Lab Filtration on Routine for IC			N/A
Lab Filtration on Routine for Metals			N/A

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18 FEB '23 AM 8:54

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com

Chain of Custody Record

P: 780.395.2525 • F: 780.462.2490

Laboratory Use Only
Arrival Temperature: 0.5°C | -1°C
AGAT Job Number: 23E999391
Notes: '23FEB17 1:31PM

Report Information
Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information
1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: QuestGW
Email: questgw@stantec.com

Report Format
☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours
Date Required:
RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED REGULAR TAT WILL BE DEFAULT.

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements (Check one)
☐ CCME ☐ AB Tier 1 ☐ BC CSR
☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL
☐ Other
☐ D50 (Drilling) ☐ SPIGEC

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	~~1F1/08-19~~ 8195920404-W-2321	Water	Feb 14/23 1300	Metals preserved and	4						X	X	X	X		Y	
	~~UL1/08-19~~ 8195920403-W-2321	Water	Feb 14/23 1445	filtered	4						X	X	X	X		Y	
	~~UL2/08-19~~ 8195920402-W-2321	Water	Feb 15/23 1030		4						X	X	X	X		Y	
	~~UL3/08-19~~ 8195920401-W-2321	Water	Feb 15/23 1230	Dissolved parameters	4						X	X	X	X		Y	
	~~UL4/08-19~~ 8195920400-W-2321	Water	Feb 16/23 1000	filtered	4						X	X	X	X		Y	
	~~1F1/05-35~~ 5355921400-W-2321	Water	Feb 16/23 1230		4						X	X	X	X		Y	
	~~UL1/05-35~~ 5355921401-W-2321	Water	Feb 16/23 1500		4						X	X	X	X		Y	
	~~1F1/07-11~~ 7115920400-W-2321	Water	Feb 17/23 1045		4						X	X	X	X		Y	
	~~UL1/07-11~~ 7115920400-W-2321	Water	Feb 17/23 1145		4						X	X	X	X		Y	
	QC-2023-01	Water	Feb 16/23 1600		4						X	X	X	X		Y	
	QC-2023-02	Water	Feb 16/23 1530		4						X	X	X	X		Y	

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Troy Myden [signature]	Feb 17/1315	[signature]	
		John Capers [signature]	02-18-23

Pink Copy - Client
Yellow Copy - AGA
White Copy- AGAT

Page 1 of 1

E 27408

Document ID: DIS-STS-1004.003

Date Revised: May 29, 2014

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: — Prepaid Collect

Waybill# —

Branch: (EDM) GP FN FM RD VAN LYD FSJ EST SASK Other:

If multiple sites were submitted at once: Yes (No)

Custody Seal Intact: Yes No (NA)

TAT: <24hr 24-48hr 48-72hr (Reg) Other

Cooler Quantity: 1

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes (No)

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry:

Hydrocarbons: Earliest Expiry

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES (NO) Precaution Taken:

Legal Samples: Yes (No)

International Samples: Yes (No)

Tape Sealed: Yes (No)

Coolant Used: Icepack (Bagged Ice) Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar)___+___+___=03 °C	2(Bottle/Jar)___+___+___=___ °C
3 (Bottle/Jar)___+___+___=___ °C	4 (Bottle/Jar)___+___+___=___ °C
5 (Bottle/Jar)___+___+___=___ °C	6 (Bottle/Jar)___+___+___=___ °C
7 (Bottle/Jar)___+___+___=___ °C	8 (Bottle/Jar)___+___+___=___ °C
9 (Bottle/Jar)___+___+___=___ °C	10 (Bottle/Jar)___+___+___=___ °C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 23Q979391

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other:

Account Project Manager: have they been notified of the above issues: Yes No

Whom spoken to: Date/Time:

CPM Initial

General Comments:

* Subcontracted Analysis (See CPM)

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec Consulting

Courier: Jayzoo Prepaid Collect

Waybill#_____

Branch: (EDM) GP FN FM RD VAN LYD FSJ EST SASK Other:___

If multiple sites were submitted at once: Yes (No)

Custody Seal Intact: Yes No (NA)

TAT: <24hr 24-48hr 48-72hr (Reg) Other_____

Cooler Quantity: 1

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? (Yes) (No)

Inorganic Tests (Please Circle): Mibi , BOD , (Nitrate/Nitrite) , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , (Residual Chlorine) , Chlorophyll* , Chloroamines*

Earliest Expiry: Feb 17

Hydrocarbons: Earliest Expiry _____

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES (NO) Precaution Taken:_____

Legal Samples: Yes (No)

International Samples: Yes (No)

Tape Sealed: Yes (No)

Coolant Used: Icepack (Bagged Ice) Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) -1 + -1 + 0 = -1 °C 2(Bottle/Jar)___+___+___=____°C

3 (Bottle/Jar)___+___+___=____°C 4 (Bottle/Jar)___+___+___=____°C

5 (Bottle/Jar)___+___+___=____°C 6 (Bottle/Jar)___+___+___=____°C

7 (Bottle/Jar)___+___+___=____°C 8 (Bottle/Jar)___+___+___=____°C

9 (Bottle/Jar)___+___+___=____°C 10 (Bottle/Jar)___+___+___=____°C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 1BE999391

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other: _____

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial_____

General Comments: _____

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020
Document ID: SR-9505.004

ISOTOPE SCIENCE LABORATORY
Dept of Geosciences, ES-513
University of Calgary
2500 University Dr. NW, Calgary, Alta.
T2N-1N4

Submission Form
Contact : S. Taylor
Tel. : (403) 210-6003
Fax : (403) 220 7773
e-mail steve.taylor@ucalgary.ca

Name: Omran Desouki
Affiliate: AGAT Laboratories
Address: 2910 12 St NE

Calgary, AB
Canada
T2E7P7

office phon 4037352747
email 1: desouki@agatlabs.com
email 2:

IN February 28, 2023
OUT March 2, 2023

PO#: 205366

#	LIMs ID	SAMPLE ID	$\delta^{13}C_{-DIC}$	Alk-total	Inj (ml)	Comments
1	C-7949	5355921400-W-23Q1	**13.8**	31	6.452	
2	C-7950	5355921401-W-23Q1	**-16.1**	670	0.299	
3	C-7951	7115920400-W-23Q1	**5.8**	179	1.117	
4	C-7952	7115920401-W-23Q1	**-0.2**	664	0.301	
5	C-7953	8195920400-W-23Q1		112	1.786	No signal !?! Check Alk
6	C-7954	8195920401-W-23Q1	**-2.2**	136	1.471	
7	C-7955	8195920402-W-23Q1	**-4.6**	153	1.307	
8	C-7956	8195920403-W-23Q1	**-6.6**	273	0.733	
9	C-7957	8195920404-W-23Q1	**-14.1**	908	0.220	
10	C-7958	QC-2023-01	**-15.7**	668	0.299	
11	C-7959	QC-2023-02		<5		below detection limit

$\delta^{13}C_{-PDB}$ of dissolved inorganic carbon (GasBench-IRMS)

All results reported in the usual permil notation relative to IAEA stds

IAEA values used to normalize data

	^{13}C	
NBS 18	-5.1 ± 0.1	
NBS 19	1.95 (b.d.)	
IAEA CO-1	2.5	
IAEA CO-8	-5.8	
IAEA CO-9	-47.1	

Precision and accuracy as 1 sigma of (n=10) lab stds are: 0.2 for $\delta^{13}C$

note: (b.d.) = 'by definition'

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113

ATTENTION TO: Darren Heck

PROJECT: 123513522

AGAT WORK ORDER: 23E024528

WATER ANALYSIS REVIEWED BY: Max Dou, Report Writer

DATE REPORTED: May 25, 2023

PAGES (INCLUDING COVER): 19

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 735-2005

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Subcontracted - 13C in DIC

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

				SAMPLE DESCRIPTION:	8195920400-W-23Q2	8195920401-W-23Q2	8195920402-W-23Q2	8195920403-W-23Q2	8195920404-W-23Q2	5355921400-W-23Q2	5355921401-W-23Q2	7115920400-W-23Q2
				SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water	Water
				DATE SAMPLED:	2023-05-10 13:16	2023-05-09 16:56	2023-05-09 11:35	2023-05-08 14:28	2023-05-08 13:05	2023-05-11 12:54	2023-05-11 10:45	2023-05-12 13:22
Parameter	Unit	G / S	RDL		4987123	4987124	4987125	4987126	4987127	4987128	4987129	4987130
Subcontracted Analysis					**	**	**	**	**	**	**	**

				SAMPLE DESCRIPTION:	7115920401-W-23Q2	QC-2023-03	QC-2023-04	QC2023-05	8195920404-W-23Q2-HS	8195920403-W-23Q2-HS	8195920402-W-23Q2-HS	8195920401-W-23Q2-HS
				SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water	Water
				DATE SAMPLED:	2023-05-11 15:29	2023-05-10 13:20	2023-05-11 14:47	2023-05-12 14:55	2023-05-08 12:15	2023-05-08 13:46	2023-05-09 09:50	2023-05-09 12:00
Parameter	Unit	G / S	RDL		4987131	4987132	4987133	4987137	4987140	4987141	4987142	4987143
Subcontracted Analysis					**	**	**	**	**	**	**	**

				SAMPLE DESCRIPTION:	8195920400-W-23Q2-HS	5355921401-W-23Q2-HS	5355921400-W-23Q2-HS	7115920401-W-23Q2-HS	7115920400-W-23Q2-HS
				SAMPLE TYPE:	Water	Water	Water	Water	Water
				DATE SAMPLED:	2023-05-10 10:00	2023-05-10 14:48			
Parameter	Unit	G / S	RDL		4987144	4987145	4987146	4987147	4987148
Subcontracted Analysis					**	**	**	**	**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

4987123-4987148 Note: Performed by subcontracted laboratory.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis - Diss. Arsenic, DIC

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

		SAMPLE DESCRIPTION:		8195920400-W-23Q2	8195920401-W-23Q2	8195920402-W-23Q2	8195920403-W-23Q2		8195920404-W-23Q2		5355921400-W-23Q2
		SAMPLE TYPE:		Water	Water	Water	Water		Water		Water
		DATE SAMPLED:		2023-05-10 13:16	2023-05-09 16:56	2023-05-09 11:35	2023-05-08 14:28		2023-05-08 13:05		2023-05-11 12:54
Parameter	Unit	G / S	RDL	4987123	4987124	4987125	4987126	RDL	4987127	RDL	4987128
Dissolved Arsenic	mg/L		0.0010	<0.0010	<0.0010	<0.0010	0.0012	0.0010	<0.0010	0.0010	<0.0010
Dissolved Inorganic Carbon	mg/L		0.5	3.7	35.3	39.8	70.3	1.5	237	0.5	12.9

		SAMPLE DESCRIPTION:		5355921401-W-23Q2		7115920400-W-23Q2		7115920401-W-23Q2		QC-2023-03	
		SAMPLE TYPE:		Water		Water		Water		Water	
		DATE SAMPLED:		2023-05-11 10:45		2023-05-12 13:22		2023-05-11 15:29		2023-05-10 13:20	
Parameter	Unit	G / S	RDL	4987129	RDL	4987130	RDL	4987131	RDL	4987132	
Dissolved Arsenic	mg/L		0.0010	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	<0.0010	
Dissolved Inorganic Carbon	mg/L		1.0	196	0.5	49.3	1.0	138	0.5	4.6	

		SAMPLE DESCRIPTION:		QC-2023-04		QC2023-05		8195920404-W-23Q2-HS		8195920403-W-23Q2-HS	8195920402-W-23Q2-HS
		SAMPLE TYPE:		Water		Water		Water		Water	Water
		DATE SAMPLED:		2023-05-11 14:47		2023-05-12 14:55		2023-05-08 12:15		2023-05-08 13:46	2023-05-09 09:50
Parameter	Unit	G / S	RDL	4987133	RDL	4987137	RDL	4987140	RDL	4987141	4987142
Dissolved Arsenic	mg/L		0.0010	<0.0010	0.0010	<0.0010	0.0010	<0.0010	0.0010	0.0012	<0.0010
Dissolved Inorganic Carbon	mg/L		1.0	141	0.5	<0.5	1.5	238	0.5	69.7	39.2

		SAMPLE DESCRIPTION:		8195920401-W-23Q2-HS	8195920400-W-23Q2-HS		5355921401-W-23Q2-HS		5355921400-W-23Q2-HS		7115920401-W-23Q2-HS
		SAMPLE TYPE:		Water	Water		Water		Water		Water
		DATE SAMPLED:		2023-05-09 12:00	2023-05-10 10:00		2023-05-10 14:48				
Parameter	Unit	G / S	RDL	4987143	4987144	RDL	4987145	RDL	4987146	RDL	4987147
Dissolved Arsenic	mg/L		0.0010	<0.0010	<0.0010	0.0010	0.0016	0.0010	<0.0010	0.0010	<0.0010
Dissolved Inorganic Carbon	mg/L		0.5	34.3	5.3	1.0	190	0.5	7.9	1.0	140

Certified By:

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CANADA T2E 7P7
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FAX (403)735-2771
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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis - Diss. Arsenic, DIC

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

				SAMPLE DESCRIPTION:	7115920400-W-23Q2-HS
				SAMPLE TYPE:	Water
				DATE SAMPLED:	
Parameter	Unit	G / S	RDL	4987148	
Dissolved Arsenic	mg/L		0.0010	<0.0010	
Dissolved Inorganic Carbon	mg/L		5	45	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

				8195920400-W-23Q2		8195920401-W-23Q2		8195920402-W-23Q2		8195920403-W-23Q2
SAMPLE DESCRIPTION:										
SAMPLE TYPE:				Water		Water		Water		Water
DATE SAMPLED:				2023-05-10 13:16		2023-05-09 16:56		2023-05-09 11:35		2023-05-08 14:28
Parameter	Unit	G / S	RDL	4987123	RDL	4987124	RDL	4987125	RDL	4987126
pH	pH Units	7.0-10.5	N/A	9.98	N/A	7.74	N/A	7.67	N/A	8.00
p - Alkalinity (as CaCO3)	mg/L		5	64	5	<5	5	<5	5	<5
T - Alkalinity (as CaCO3)	mg/L		5	81	5	139	5	152	5	264
Bicarbonate	mg/L		5	<5	5	175	5	191	5	333
Carbonate	mg/L		5	20	5	<5	5	<5	5	<5
Hydroxide	mg/L		5	16	5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		5	28900	5	18500	5	13600	5	6060
Chloride	mg/L	(250)	12	11100	6.0	6750	6.0	4790	1.5	1780
Fluoride	mg/L	1.5	0.1	<0.1	0.1	0.1	0.1	<0.1	0.03	0.32
Nitrate	mg/L	45	1.0	<1.0	1.0	<1.0	10	<10	0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrite	mg/L	3	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.10	<0.10
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L	(500)	1.0	5.6	1.0	41.8	1.0	1.6	1.0	1.7
Dissolved Calcium	mg/L		0.3	552	0.3	227	0.3	132	0.3	22.2
Dissolved Magnesium	mg/L		0.2	7.2	0.2	44.9	0.2	20.0	0.2	3.5
Dissolved Sodium	mg/L	(200)	1.0	5930	1.0	3890	1.0	2780	1.0	1190
Dissolved Potassium	mg/L		0.6	99.9	0.6	35.2	0.6	18.2	0.6	10.3
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	<0.005	0.005	<0.005	0.005	<0.005	0.005	0.125
Sodium Adsorption Ratio				68.7		61.7		59.6		61.9
Calculated TDS	mg/L		0.6	17700	0.6	11100	0.6	7840	0.6	3170
Hardness	mg CaCO3/L		0.5	1410	0.5	752	0.5	412	0.5	69.8
Ion Balance	%		1	92	1	95	1	94	1	96
Lab Filtration on Routine for IC				Complete		Complete		Complete		Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

				8195920404-W-		5355921400-W-		5355921401-W-		7115920400-W-
SAMPLE DESCRIPTION:				23Q2		23Q2		23Q2		23Q2
SAMPLE TYPE:				Water		Water		Water		Water
DATE SAMPLED:				2023-05-08 13:05		2023-05-11 12:54		2023-05-11 10:45		2023-05-12 13:22
Parameter	Unit	G / S	RDL	4987127	RDL	4987128	RDL	4987129	RDL	4987130
pH	pH Units	7.0-10.5	N/A	8.45	N/A	7.66	N/A	8.28	N/A	8.03
p - Alkalinity (as CaCO3)	mg/L		5	16	5	<5	5	<5	5	<5
T - Alkalinity (as CaCO3)	mg/L		5	904	5	58	5	763	5	195
Bicarbonate	mg/L		5	1090	5	74	5	947	5	245
Carbonate	mg/L		5	19	5	<5	5	<5	5	<5
Hydroxide	mg/L		5	<5	5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		5	1920	5	22700	5	1940	5	12400
Chloride	mg/L	(250)	1.0	70.1	6.0	8520	1.0	17.7	6.0	4170
Fluoride	mg/L	1.5	0.01	0.78	0.1	<0.1	0.01	0.17	0.1	0.2
Nitrate	mg/L	45	1.0	<1.0	1.0	<1.0	0.5	2.0	1.0	<1.0
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	0.45	0.02	<0.02
Nitrite	mg/L	3	0.05	<0.05	0.40	<0.40	0.40	<0.40	0.40	<0.40
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	0.45	0.02	<0.02
Sulfate	mg/L	(500)	1.0	<1.0	1.0	<1.0	1.0	212	1.0	<1.0
Dissolved Calcium	mg/L		0.3	4.3	0.3	282	0.3	23.1	0.3	88.2
Dissolved Magnesium	mg/L		0.2	0.6	0.2	70.9	0.2	11.3	0.2	23.7
Dissolved Sodium	mg/L	(200)	0.6	458	1.0	4590	0.6	434	1.0	2610
Dissolved Potassium	mg/L		0.6	4.7	0.6	23.3	0.6	6.5	0.6	13.5
Dissolved Iron	mg/L	(0.3)	0.1	0.5	0.1	<0.1	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.030	0.005	0.652	0.005	0.078	0.005	0.203
Sodium Adsorption Ratio				54.8		63.2		18.5		63.7
Calculated TDS	mg/L		0.6	1090	0.6	13500	0.6	1170	0.6	7030
Hardness	mg CaCO3/L		0.5	13.2	0.5	996	0.5	104	0.5	318
Ion Balance	%		1	99	1	91	1	103	1	99
Lab Filtration on Routine for IC				Complete		Complete		Complete		Complete

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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TEL (403)735-2005
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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

SAMPLE DESCRIPTION:				7115920401-W-23Q2		QC-2023-03		QC-2023-04	QC2023-05	8195920404-W-23Q2-HS
SAMPLE TYPE:				Water		Water		Water	Water	Water
DATE SAMPLED:				2023-05-11 15:29		2023-05-10 13:20		2023-05-11 14:47	2023-05-12 14:55	2023-05-08 12:15
Parameter	Unit	G / S	RDL	4987131	RDL	4987132	RDL	4987133	4987137	4987140
pH	pH Units	7.0-10.5	N/A	9.57	N/A	9.90	N/A	9.58	4.58	8.47
p - Alkalinity (as CaCO3)	mg/L		5	143	5	58	5	146	<5	18
T - Alkalinity (as CaCO3)	mg/L		5	668	5	78	5	666	<5	910
Bicarbonate	mg/L		5	483	5	<5	5	469	<5	1090
Carbonate	mg/L		5	171	5	24	5	176	<5	21
Hydroxide	mg/L		5	<5	5	13	5	<5	<5	<5
Electrical Conductivity	uS/cm		5	1630	5	29000	5	1630	<5	1920
Chloride	mg/L	(250)	1.0	77.5	12	11000	1.0	79.1	<1.0	70.7
Fluoride	mg/L	1.5	0.01	1.23	0.1	0.2	0.01	1.28	<0.01	0.78
Nitrate	mg/L	45	0.5	<0.5	1.0	<1.0	0.5	<0.5	<0.5	2.4
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	0.54
Nitrite	mg/L	3	0.40	<0.40	0.40	<0.40	0.05	0.05	<0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	0.02	<0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	0.54
Sulfate	mg/L	(500)	1.0	2.2	1.0	5.0	1.0	1.6	<1.0	<1.0
Dissolved Calcium	mg/L		0.3	1.5	0.3	545	0.3	1.6	<0.3	4.4
Dissolved Magnesium	mg/L		0.2	0.3	0.2	7.0	0.2	0.3	<0.2	0.6
Dissolved Sodium	mg/L	(200)	0.6	373	1.0	5990	0.6	372	<0.6	471
Dissolved Potassium	mg/L		0.6	2.7	0.6	101	0.6	2.8	<0.6	4.8
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	0.1	<0.1	0.1	0.1	<0.1	0.5
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	<0.005	0.005	<0.005	0.005	<0.005	<0.005	0.028
Sodium Adsorption Ratio				72.7		69.8		70.7	0	55.8
Calculated TDS	mg/L		0.6	866	0.6	17700	0.6	864	<0.6	1110
Hardness	mg CaCO3/L		0.5	5.0	0.5	1390	0.5	5.2	<0.5	13.5
Ion Balance	%		1	103	1	93	1	103	13	101
Lab Filtration on Routine for IC				Complete		Complete		Complete	Complete	Complete

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

Parameter	Unit	G / S	RDL	8195920403-W-23Q2-HS Water 2023-05-08 13:46 4987141	RDL	8195920402-W-23Q2-HS Water 2023-05-09 09:50 4987142	8195920401-W-23Q2-HS Water 2023-05-09 12:00 4987143	RDL	8195920400-W-23Q2-HS Water 2023-05-10 10:00 4987144	RDL	5355921401-W-23Q2-HS Water 2023-05-10 14:48 4987145
pH	pH Units	7.0-10.5	N/A	7.97	N/A	7.71	7.73	N/A	10.1	N/A	9.05
p - Alkalinity (as CaCO3)	mg/L		5	<5	5	<5	<5	5	65	5	64
T - Alkalinity (as CaCO3)	mg/L		5	262	5	146	136	5	83	5	682
Bicarbonate	mg/L		5	329	5	187	171	5	<5	5	691
Carbonate	mg/L		5	<5	5	<5	<5	5	22	5	77
Hydroxide	mg/L		5	<5	5	<5	<5	5	16	5	<5
Electrical Conductivity	uS/cm		5	6050	5	13700	18800	5	28700	5	1800
Chloride	mg/L	(250)	1.5	1800	6.0	4770	6740	12	10800	1.0	29.7
Fluoride	mg/L	1.5	0.03	0.29	0.1	<0.1	0.3	0.1	0.2	0.01	0.15
Nitrate	mg/L	45	0.5	3.0	1.0	<1.0	<1.0	1.0	<1.0	0.5	<0.5
Nitrate-N	mg/L	10	0.02	0.68	0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrite	mg/L	3	0.10	<0.10	0.40	<0.40	<0.40	0.40	<0.40	0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	0.68	0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L	(500)	1.0	1.8	1.0	1.7	38.8	1.0	4.6	1.0	173
Dissolved Calcium	mg/L		0.3	22.8	0.3	131	239	0.3	527	0.3	4.6
Dissolved Magnesium	mg/L		0.2	3.5	0.2	19.7	45.2	0.2	7.2	0.2	6.9
Dissolved Sodium	mg/L	(200)	1.0	1210	1.0	2760	3840	1.0	5960	0.6	411
Dissolved Potassium	mg/L		0.6	10.3	0.6	17.5	34.9	0.6	112	0.6	6.3
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.129	0.005	0.030	0.008	0.005	<0.005	0.005	<0.005
Sodium Adsorption Ratio				62.3		59.4	59.7		70.6		28.3
Calculated TDS	mg/L		0.6	3210	0.6	7790	11000	0.6	17500	0.6	1050
Hardness	mg CaCO3/L		0.5	71.3	0.5	408	783	0.5	1350	0.5	39.9
Ion Balance	%		1	97	1	93	95	1	94	1	103
Lab Filtration on Routine for IC				Complete		Complete	Complete		Complete		Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

Parameter	Unit	G / S	RDL	5355921400-W-23Q2-HS Water 4987146	RDL	7115920401-W-23Q2-HS Water 4987147	RDL	7115920400-W-23Q2-HS Water 4987148
pH	pH Units	7.0-10.5	N/A	7.86	N/A	9.56	N/A	7.96
p - Alkalinity (as CaCO3)	mg/L		5	<5	5	146	5	<5
T - Alkalinity (as CaCO3)	mg/L		5	29	5	678	5	174
Bicarbonate	mg/L		5	41	5	482	5	223
Carbonate	mg/L		5	<5	5	176	5	<5
Hydroxide	mg/L		5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		5	20800	5	1630	5	10000
Chloride	mg/L	(250)	6.0	7700	1.0	81.5	3.0	3350
Fluoride	mg/L	1.5	0.1	<0.1	0.01	1.25	0.06	0.12
Nitrate	mg/L	45	1.0	<1.0	0.5	<0.5	0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrite	mg/L	3	0.40	<0.40	0.05	<0.05	0.20	<0.20
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L	(500)	1.0	<1.0	1.0	1.6	1.0	<1.0
Dissolved Calcium	mg/L		0.3	227	0.3	1.5	0.3	70.4
Dissolved Magnesium	mg/L		0.2	58.3	0.2	0.3	0.2	19.6
Dissolved Sodium	mg/L	(200)	1.0	4330	0.6	374	1.0	2060
Dissolved Potassium	mg/L		0.6	20.6	0.6	2.5	0.6	20.2
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.276	0.005	<0.005	0.005	0.357
Sodium Adsorption Ratio				66.3		72.9		55.9
Calculated TDS	mg/L		0.6	12400	0.6	874	0.6	5630
Hardness	mg CaCO3/L		0.5	807	0.5	5.0	0.5	257
Ion Balance	%		1	94	1	102	1	97
Lab Filtration on Routine for IC				Complete		Complete		Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-05-12

DATE REPORTED: 2023-05-25

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to 2020 Canadian Drinking Water Quality MAC (AO)
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

4987123-4987148 < - Values refer to Report Detection Limits.
SAR is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.
Ion Balance is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Hardness is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Calculated TDS is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: May 25, 2023

PARAMETER	Batch	Sample Id	DUPLICATE Dup #1	DUPLICATE Dup #2	DUPLICATE RPD	Method Blank	REFERENCE MATERIAL Measured Value	REFERENCE MATERIAL Acceptable Limits Lower	REFERENCE MATERIAL Acceptable Limits Upper	METHOD BLANK SPIKE Recovery	METHOD BLANK SPIKE Acceptable Limits Lower	METHOD BLANK SPIKE Acceptable Limits Upper	MATRIX SPIKE Recovery	MATRIX SPIKE Acceptable Limits Lower	MATRIX SPIKE Acceptable Limits Upper
Water Package - Routine Chemistry Water Analysis - Field Filtered Cations															
pH	5000253	5000253	6.20	5.76	7.4%	N/A	100%	90%	110%						
p - Alkalinity (as CaCO3)	5000253	5000253	<5	<5	NA	< 5	NA	80%	120%						
T - Alkalinity (as CaCO3)	5000253	5000253	<5	<5	NA	< 5	101%	80%	120%						
Bicarbonate	5003964	5003964	<5	<5	NA	< 5									
Carbonate	5000253	5000253	<5	<5	NA	< 5									
Hydroxide	5000253	5000253	<5	<5	NA	< 5									
Electrical Conductivity	5000253	5000253	<5	<5	NA	< 5	102%	90%	110%						
Chloride	4987131	4987131	77.5	79.8	2.9%	< 1.0	95%	70%	130%	88%	80%	120%	118%	70%	130%
Fluoride	4987131	4987131	1.0	1.1	8.1%	< 0.01	94%	70%	130%	89%	80%	120%	103%	70%	130%
Nitrate	4987131	4987131	<1.0	<1.0	NA	< 0.5	97%	70%	130%	93%	80%	120%	105%	70%	130%
Nitrite	4987131	4987131	<0.40	<0.40	NA	< 0.05	98%	70%	130%	93%	80%	120%	102%	70%	130%
Sulfate	4987131	4987131	1.4	1.2	NA	< 1.0	98%	70%	130%	94%	80%	120%	105%	70%	130%
Dissolved Calcium	4996879	4996879	2.4	2.4	3.0%	< 0.3	103%	70%	130%	109%	80%	120%	103%	70%	130%
Dissolved Magnesium	4996879	4996879	0.5	0.5	NA	< 0.2	100%	70%	130%	95%	80%	120%	94%	70%	130%
Dissolved Sodium	4996879	4996879	214	212	1.1%	< 0.6	97%	70%	130%	90%	80%	120%	NA	70%	130%
Dissolved Potassium	4996879	4996879	0.8	0.7	NA	< 0.6	92%	70%	130%	91%	80%	120%	94%	70%	130%
Dissolved Iron	4996879	4996879	<0.1	<0.1	NA	< 0.1	99%	70%	130%	101%	80%	120%	98%	70%	130%
Dissolved Manganese	4996879	4996879	<0.005	<0.005	NA	< 0.005	98%	70%	130%	100%	80%	120%	97%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

Water Analysis - Diss. Arsenic, DIC															
Dissolved Arsenic	4987123	4987123	<0.010	<0.010	NA	< 0.0010	NA	70%	130%	99%	80%	120%	106%	70%	130%
Dissolved Inorganic Carbon	4987123	4987123	3.7	4.0	7.9%	< 0.5	113%	80%	120%	116%	80%	120%	97%	80%	120%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations															
pH	4987147	4987147	9.56	9.51	0.5%	N/A	100%	90%	110%						
p - Alkalinity (as CaCO3)	4987147	4987147	146	139	5.5%	< 5	NA	80%	120%						
T - Alkalinity (as CaCO3)	4987147	4987147	678	660	2.6%	< 5	99%	80%	120%						
Bicarbonate	4987147	4987147	482	483	0.3%	< 5									
Carbonate	4987147	4987147	176	166	5.5%	< 5									
Hydroxide	4987147	4987147	<5	<5	NA	< 5									
Electrical Conductivity	4987147	4987147	1630	1610	1.0%	< 5	104%	90%	110%						
Chloride	4987148	4987148	3350	3280	2.1%	< 1.0	96%	70%	130%	88%	80%	120%	NA	70%	130%

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis (Continued)

RPT Date: May 25, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Fluoride	4987148	4987148	<0.6	<0.6	NA	< 0.01	92%	70%	130%	90%	80%	120%	102%	70%	130%
Nitrate	4987148	4987148	<5	<5	NA	< 0.5	97%	70%	130%	93%	80%	120%	106%	70%	130%
Nitrite	4987148	4987148	<2.0	<2.0	NA	< 0.05	98%	70%	130%	92%	80%	120%	102%	70%	130%
Sulfate	4987148	4987148	<3.0	<3.0	NA	< 1.0	98%	70%	130%	93%	80%	120%	107%	70%	130%
Dissolved Calcium	5000297	5000297	203	203	0.2%	< 0.3	100%	70%	130%	109%	80%	120%	NA	70%	130%
Dissolved Magnesium	5000297	5000297	99.4	101	1.3%	< 0.2	97%	70%	130%	94%	80%	120%	NA	70%	130%
Dissolved Sodium	5000297	5000297	93.5	95.0	1.6%	< 0.6	101%	70%	130%	102%	80%	120%	NA	70%	130%
Dissolved Potassium	5000297	5000297	7.7	7.8	1.9%	< 0.6	94%	70%	130%	99%	80%	120%	NA	70%	130%
Dissolved Iron	5000297	5000297	<0.1	<0.1	NA	< 0.1	98%	70%	130%	99%	80%	120%	94%	70%	130%
Dissolved Manganese	5000297	5000297	<0.005	<0.005	NA	< 0.005	97%	70%	130%	98%	80%	120%	94%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

Water Analysis - Diss. Arsenic, DIC

Dissolved Arsenic	4999291		<0.010	<0.010	NA	< 0.0010	NA	70%	130%	98%	80%	120%	104%	70%	130%
Dissolved Inorganic Carbon	4987145	4987145	190	188	0.6%	< 0.5	120%	80%	120%	114%	80%	120%	NA	80%	120%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Certified By:

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E024528

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Subcontracted Analysis		Subcontracted	ION CHROMATOGRAPH
Dissolved Arsenic	INST 0141	SM 3125 B	ICP-MS
Dissolved Inorganic Carbon	INST 0170	SM 5310 B	COMBUSTION
pH	INST 0101, INST 0104	SM 4500 H+	PH METER
p - Alkalinity (as CaCO3)	INST-0100, INST-0101	SM 2320 B	TITRATION
T - Alkalinity (as CaCO3)	INST 0101	SM 2320 B	TITRATION
Bicarbonate	INST 0101	SM 2320 B	PC TITRATE
Carbonate	INST 0101	SM 2320 B	PC TITRATE
Hydroxide	INST 0101	SM 2320 B	PC TITRATE
Electrical Conductivity	INST 0101, INST 0120	SM 2510 B	CONDUCTIVITY METER
Chloride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate-N	INST 0150	SM 4110 B	CALCULATION
Nitrite	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrite-N	INST 0150	SM 4110 B	CALCULATION
Nitrate+Nitrite - Nitrogen	INST 0150	SM 4110 B	CALCULATION
Sulfate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Dissolved Calcium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Magnesium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Sodium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Potassium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Iron	INST 0140	SM 3120B – R	ICP/OES
Dissolved Manganese	INST 0140	SM 3120B – R	ICP/OES
Sodium Adsorption Ratio		CARTER & GREGORICH 2007	CALCULATION
Calculated TDS		SM 1030E	CALCULATION
Hardness		SM 2340 B	CALCULATION
Ion Balance		SM 1030E	CALCULATION
Lab Filtration on Routine for IC			N/A

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com

P: 780.395.2525 · F: 780.462.2490

Chain of Custody Record

Laboratory Use Only
Arrival Temperature: 3°C
AGAT Job Number: 23E024578

Notes:
'23 MAY 12 6:00 PM

Report Information
Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information
1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: QuestGW
Email: questgw@stantec.com

Report Format
☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours
RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements *(Check one)*
☐ CCME ☐ AB Tier 1 ☐ BC CSR
☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL
☐ Other
☐ D50 (Drilling) ☐ SPIGEC

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	8195920400-W-23Q2	Water	May 10/23 1316	Water samples	4						X	X	X	X			
	8195920401-W-23Q2		May 9/23 1656	field filtered	4						X	X	X	X			
	8195920402-W-23Q2		May 9/23 1135	and preserved	4						X	X	X	X			
	8195920403-W-23Q2		May 8/23 1428	as marked on	4						X	X	X	X			
	8195920404-W-23Q2		May 8/23 1305	bottles	4						X	X	X	X			
	5355921400-W-23Q2		May 11/23 1254		4						X	X	X	X			
	5355921401-W-23Q2		May 11/23 1045		4						X	X	X	X			
	7115920400-W-23Q2		May 12/23 1322		4						X	X	X	X			
	7115920401-W-23Q2		May 11/23 1529		4						X	X	X	X			
	QC-2023-03		May 10/23 1320		4						X	X	X	X			
	QC-2023-04		May 11/23 1447		4						X	X	X	X			

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Taylor Harris	23/05/12 17:55		
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign): John Capara	Date/Time RECEIVED MAY 13 2023
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

Pink Copy - Client
Yellow Copy - AGAT
White Copy - AGAT

E 27888

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com

P: 780.395.2525 • F: 780.462.2490

Chain of Custody Record

Laboratory Use Only

Arrival Temperature: _____

AGAT Job Number: _____

Notes: '23 MAY 12 6:01 PM

Report Information

Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Invoice To Same Yes ☑ / No ☐

Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Report Information

1. Name: Darren Heck
   Email: darren.heck@stantec.com
2. Name: QuestGW
   Email: questgw@stantec.com

Requirements *(Check one)*

☐ CCME ☐ AB Tier 1 ☐ BC CSR

CCME	AB Tier 1	BC CSR
☐ Agricultural	☐ Agricultural	☐ AW
☐ Industrial	☐ Industrial	☐ IW
☐ Residential/Park	☐ Residential/Park	☐ LW
☐ Commercial	☐ Commercial	☐ DW
☐ Drinking Water	☐ Natural Area	
☐ FWAL		

☐ Other
☐ D50 (Drilling) ☐ SPIGEC

Report Format

☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)

RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.

Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours

Date Required: _____

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	8195920400-G-23Q2	Gas	May 10/23 1321	Water samples	1										X		
	5355921400-G-23Q2	Gas	May 11/23 1300	field filtered	2										X		
	QC-2023-03-G	Gas	May 10/23 1325	and preserved	1										X		
	QC-2023-05	Water	May 2/23 1455	as needed and	4						X	X	X	X			
	7115920400-G-23Q2	Gas	May 12/23 1330	marked in bottles	2										X		
	8195920400-W-2302-HS	Water	May 8/23 1215		4						X	X	X	X			
	8195920403-W-2302-HS	Water	May 8/23 1346		4						X	X	X	X			
	8195920402-W-2302-HS	Water	May 9/23 950		4						X	X	X	X			
	8195920401-W-2302-HS	Water	May 9/23 1200		4						X	X	X	X			
	8195920400-W-2302-HS	Water	May 10/23 1000		4						X	X	X	X			
	5355921401-W-2302-HS	Water	May 10/23 1448		4						X	X	X	X			

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
Taylor Harris	23/05/12 17:55		
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

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Yellow Copy - AGAT
White Copy- AGAT

Page 2 of 3

N°:

AGAT Laboratories
2910 12 Street NE
Calgary, Alberta T2E 7P7
P: 403-735-2005 • F: 403-735-2771
webearth.agatlabs.com

Laboratory Use Only
Arrival Temperature:
Cooler Quantity:
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
AGAT Job Number:

Chain of Custody Record

Emergency Support Services Hotline 1-855-AGAT 245 (1-855-242-8245)

Report Information
Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325-25 Street SE
Phone: 403-716-8137 Calgary, AB

Project Information
Client Project #:
Site Location:
Sample By:
AGAT Quote #:
If a quotation number is not provided, client will be billed at standard rates. See terms and conditions of quote for full details.

Invoice To Same as Report to ☑
Company:
Contact:
Email:
Address
Phone:
PO/CC #: SHELL STANDING OFFER

Report Information
1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: Quest GW
Email: questgw@stantec.com
3. Name:
Email:

Requirements *(Selection may impact detection limits)*

CCME	AB Tier 1	Alberta Surface Water
☐ Agricultural	☐ Agricultural	☐ Chronic
☐ Industrial	☐ Industrial	☐ Acute
☐ Residential/Park	☐ Residential/Park	☐ SK Notice of Site Cond.
☐ Commercial	☐ Commercial	☐ Drinking Water
☐ FWAL	☐ Natural Area	☐ Other:

Is this part of the Alberta SRP program? ☐ YES ☐ NO (If yes, please fill below)
Application Number:
Grant Amount:
Well/Facility/Location ID:
UWI:

Turnaround Time Required (TAT)
Regular TAT: ☑ 5 to 7 Business Days
Rush TAT: ☐ <24 Hours (200%) ☐ Next Business Day (100%) ☐ 2 Business Days (50%) ☐ 3 Business Days(25%)
Date Required:

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	DEPTH	DATE/TIME SAMPLED	SAMPLE MATRIX	COMMENTS	# OF CONTAINERS: VIALS / JARS	BAGS	BOTTLES	Field Filtered (Y/N)	Preserved (Y/N)	Detailed Salinity: ☐ AB ☐ SK ☐ BC ☐ D50	☐ CCME/AB : BTEX/F1-F4 ☐ CCME/AB : BTEX/F1-F2	☐ BC: BTEXS/VPH/EPH ☐ BC: LEPH/HEPH	SK: BTEX/TVH/C11-C22, C23-C60	Soil Metals: ☐ HWS-B ☐ SP-B ☐ Hg ☐ Cr^{6+}	Water Metals: ☐ Dissolved ☐ Total ☐ Hg ☐ Cr^{6+}	Routine Water Chemistry	Metals: ☐ Dissolved ☐ Total	Coliforms: ☐ Total ☐ Fecal ☐ E.coli	Particle Size: ☐ Sieve (75µm) ☐ Texture	Arsenic (Dissolved)	613C DIC Isotope by VOFC	Hold For 30 Days No Analysis (Additional Fee)	Long Term Storage - 6 Months	Long Term Storage - 1 Year	Hazardous (Y/N)
1	5355921400-W-23Q2-HS			water	Field filtered			4	Y	Y							X	X			X	X				
2	[illegible]				and preserved																					
3	7115920401-W-23Q2-HS			water	as written on			4	Y	Y							X	X			X	X				
4	7115920400-W-23Q2-HS			water	bottles.			4	Y	Y							X	X			X	X				
5																										
6																										
7																										
8																										
9																										
10																										

'23 MAY 12 6:01 PM

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Taylor Harris [signature]	23/05/12 17:55	[signature]	

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 3 of 3
Nº: AB 185865

Document ID: DIV-50-1507.007
Date Revised: Oct 14, 2021

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: D/U Prepaid Collect

Waybill#_____

Branch EDM GP FN FM RD VAN LYD FSJ EST SASK Other:___

If multiple sites were submitted at once: Yes No

Custody Seal Intact: Yes No NA

TAT: <24hr 24-48hr 48-72hr Reg Other_____

Cooler Quantity: 8

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes No

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry:_____

Hydrocarbons: Earliest Expiry _____

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES NO Precaution Taken:_____

Legal Samples: Yes No

International Samples: Yes No

Tape Sealed: Yes No

Coolant Used: Icepack Bagged Ice Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) 3.5 + 3.6 + 3.7 = 3.6 °C 2 (Bottle/Jar) 3.6 + 3.7 + 3.8 = 3.7 °C

3 (Bottle/Jar)___+___+___=____ °C 4 (Bottle/Jar)___+___+___=____ °C

5 (Bottle/Jar)___+___+___=____ °C 6 (Bottle/Jar)___+___+___=____ °C

7 (Bottle/Jar)___+___+___=____ °C 8 (Bottle/Jar)___+___+___=____ °C

9 (Bottle/Jar)___+___+___=____ °C 10 (Bottle/Jar)___+___+___=____ °C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: _____

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other: _____

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial_____

General Comments: _____

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020
Document ID: SR-9505.004

JAZOO EXPRESS COURIER

www.jazoocourier.com

CLIENT USE ONLY

Contact Name:	Emmanuelle B.	Contact Location:	AGAT Edmonton (6310)	Billed To:	AGAT Laboratories
Date:	05/12/2023	Delivery From:	6310 Roper Road Edmonton AB., Canada (780) 395-2525		
		Delivery To:	2910 12 St., NE Calgary AB, T2E 7P7		
Total # Items:	7	Item Description: envelope, sm/med/lg box, cooler, etc.	6 Large Coolers 1 Medium Cooler		
			Job/PO/Reference #:		
Authorized Shipper Signature:		EB Benjamino			

DRIVER USE ONLY

P/U Driver Name:		P/U Time:	am	D/O Time:	6M 1.50 am
# Items P/U:	7		pm		pm
	Overweight		TDG		

Total # Items Dropped Off:	7	D/O Driver Name:	
Authorized Receiver Signature:			

HOTSHOT DETAILS

Total Km:		Or Total Charge ($):	

OFFICE USE ONLY

Verified By:		Invoiced By:	

To schedule a pickup please contact dispatch at the city nearest you:

Calgary 403-660-5504 **Fort McMurray** 587-645-6364

Edmonton 780-903-3628 **Grande Prairie** 587-297-8406

THANK YOU FOR SUPPORTING LOCAL AND CHOOSING JAZOO EXPRESS COURIER.

Document ID: SR-50-9508.004
Date Revised: November 7, 2019

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: Jazoo Prepaid Collect

Waybill#_____

Branch: (EDM) GP FN FM RD VAN LYD FSJ EST SASK Other:___

If multiple sites were submitted at once: Yes (No)

Custody Seal Intact: Yes No (NA)

TAT: <24hr 24-48hr 48-72hr (Reg) Other_____

Cooler Quantity: 3

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes (No)

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry:_____

Hydrocarbons: Earliest Expiry _____

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES (NO) Precaution Taken:_____

Legal Samples: Yes (No)

International Samples: Yes (No)

Tape Sealed: Yes (No)

Coolant Used: Icepack (Bagged Ice) Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) 4 + 3 + 2 = 3 °C	2 (Bottle/Jar) 3 + 3 + 2 = 3 °C
3 (Bottle/Jar)___+___+___=____ °C	4 (Bottle/Jar)___+___+___=____ °C
5 (Bottle/Jar)___+___+___=____ °C	6 (Bottle/Jar)___+___+___=____ °C
7 (Bottle/Jar)___+___+___=____ °C	8 (Bottle/Jar)___+___+___=____ °C
9 (Bottle/Jar)___+___+___=____ °C	10 (Bottle/Jar)___+___+___=____ °C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 23E074528

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other: _____

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial_____

General Comments: _____

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020
Document ID: SR-9505.004

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113
ATTENTION TO: REED LANNAN
PROJECT:
AGAT WORK ORDER: 23C024670
OCCUPATIONAL HYGIENE REVIEWED BY: Bernie Diep, Analyst
DATE REPORTED: Jun 13, 2023
PAGES (INCLUDING COVER): 6
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 299-2000

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C024670

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas SAMPLE ID:**TB1A** DATE RECEIVED: May 15, 2023

DATE SAMPLED: May 12, 2023 DATE REPORTED: Jun 13, 2023

SAMPLE DESCRIPTION: NOT AVAILABLE; SAMPLE TAG#4987138A; CLIENT ID#7115920400-G-23Q2

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	0.01		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen (H2)	%	<0.01		0.01	May 23, 2023	BD	May 15, 2023
Oxygen (O2)	%	0.74		0.01	May 23, 2023	BD	May 15, 2023
Nitrogen (N2)	%	2.9		0.1	May 23, 2023	BD	May 15, 2023
Carbon Dioxide (CO2)	%	0.10		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	May 23, 2023	BD	May 15, 2023
Methane (C1)	%	96.13		0.01	May 23, 2023	BD	May 15, 2023
Ethane (C2)	%	0.13		0.01	May 23, 2023	BD	May 15, 2023
Propane (C3)	%	0.008		0.001	May 23, 2023	BD	May 15, 2023
I-Butane (IC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Butane (NC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Pentane (IC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Pentane (NC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Hexanes (C6)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Heptanes (C7)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Octanes (C8)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Nonanes (C9)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Decanes+ (C10+)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C024670

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas SAMPLE ID:**TB4B** DATE RECEIVED: May 15, 2023

DATE SAMPLED: May 1**1**, 2023 DATE REPORTED: Jun 13, 2023

SAMPLE DESCRIPTION: NOT AVAILABLE; SAMPLE TAG#4987135B; CLIENT ID#5355921400--G-23Q2

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen (H2)	%	0.65		0.01	May 23, 2023	BD	May 15, 2023
Oxygen (O2)	%	1.04		0.01	May 23, 2023	BD	May 15, 2023
Nitrogen (N2)	%	4.1		0.1	May 23, 2023	BD	May 15, 2023
Carbon Dioxide (CO2)	%	0.04		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	May 23, 2023	BD	May 15, 2023
Methane (C1)	%	94.11		0.01	May 23, 2023	BD	May 15, 2023
Ethane (C2)	%	0.03		0.01	May 23, 2023	BD	May 15, 2023
Propane (C3)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Butane (IC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Butane (NC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Pentane (IC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Pentane (NC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Hexanes (C6)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Heptanes (C7)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Octanes (C8)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Nonanes (C9)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Decanes+ (C10+)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

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AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C024670

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas SAMPLE ID:**TB5C** DATE RECEIVED: May 15, 2023

DATE SAMPLED: May 1**0**, 2023 DATE REPORTED: Jun 13, 2023

SAMPLE DESCRIPTION: NOT AVAILABLE; SAMPLE TAG#4987136A; CLIENT ID#QC-2023-03-G

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen (H2)	%	0.18		0.01	May 23, 2023	BD	May 15, 2023
Oxygen (O2)	%	2.16		0.01	May 23, 2023	BD	May 15, 2023
Nitrogen (N2)	%	8.5		0.1	May 23, 2023	BD	May 15, 2023
Carbon Dioxide (CO2)	%	0.03		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	May 23, 2023	BD	May 15, 2023
Methane (C1)	%	89.08		0.01	May 23, 2023	BD	May 15, 2023
Ethane (C2)	%	0.02		0.01	May 23, 2023	BD	May 15, 2023
Propane (C3)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Butane (IC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Butane (NC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Pentane (IC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Pentane (NC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Hexanes (C6)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Heptanes (C7)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Octanes (C8)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Nonanes (C9)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Decanes+ (C10+)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

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CALGARY, ALBERTA
CANADA T2E 7P7
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Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C024670

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas SAMPLE ID:**TB6D** DATE RECEIVED: May 15, 2023

DATE SAMPLED: May 1**0**, 2023 DATE REPORTED: Jun 13, 2023

SAMPLE DESCRIPTION: NOT AVAILABLE; SAMPLE TAG#4987134A; CLIENT ID#8195920400-G-23Q2

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen (H2)	%	0.16		0.01	May 23, 2023	BD	May 15, 2023
Oxygen (O2)	%	3.05		0.01	May 23, 2023	BD	May 15, 2023
Nitrogen (N2)	%	12.0		0.1	May 23, 2023	BD	May 15, 2023
Carbon Dioxide (CO2)	%	0.03		0.01	May 23, 2023	BD	May 15, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	May 23, 2023	BD	May 15, 2023
Methane (C1)	%	84.72		0.01	May 23, 2023	BD	May 15, 2023
Ethane (C2)	%	0.03		0.01	May 23, 2023	BD	May 15, 2023
Propane (C3)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Butane (IC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Butane (NC4)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
I-Pentane (IC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
N-Pentane (NC5)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Hexanes (C6)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Heptanes (C7)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Octanes (C8)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Nonanes (C9)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023
Decanes+ (C10+)	%	<0.001		0.001	May 23, 2023	BD	May 15, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

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2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C024670

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Occupational Hygiene Analysis			
Helium (He)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen (H2)	HC-0160	GPA 2286-14	GC/TCD/FID
Oxygen (O2)	HC-0160	GPA 2286-14	GC/TCD/FID
Nitrogen (N2)	HC-0160	GPA 2286-14	GC/TCD/FID
Carbon Dioxide (CO2)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen Sulphide (H2S)	HC-0160	GPA 2286-14	GC/TCD/FID
Methane (C1)	HC-0160	GPA 2286-14	GC/TCD/FID
Ethane (C2)	HC-0160	GPA 2286-14	GC/TCD/FID
Propane (C3)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Butane (IC4)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Butane (NC4)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Pentane (IC5)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Pentane (NC5)	HC-0160	GPA 2286-14	GC/TCD/FID
Hexanes (C6)	HC-0160	GPA 2286-14	GC/FID
Heptanes (C7)	HC-0160	GPA 2286-14	GC/FID
Octanes (C8)	HC-0160	GPA 2286-14	GC/FID
Nonanes (C9)	HC-0160	GPA 2286-14	GC/FID
Decanes+ (C10+)	HC-0160	GPA 2286-14	GC/FID

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CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113

ATTENTION TO: Darren Heck

PROJECT: 123513522

AGAT WORK ORDER: 23E056715

WATER ANALYSIS REVIEWED BY: Jennifer Liu, Analyst

DATE REPORTED: Aug 18, 2023

PAGES (INCLUDING COVER): 18

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 735-2005

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Metals - Dissolved Arsenic

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				8195920403-W-23Q3	8195920403-W-23Q3-HS	8195920400-W-23Q3	8195920400-W-23Q3-HS	8195920404-W-23Q3	8195920404-W-23Q3-HS	8195920401-W-23Q3	8195920401-W-23Q3-HS
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-08-07	2023-08-07	2023-08-07	2023-08-07	2023-08-08	2023-08-08	2023-08-08	2023-08-08
Parameter	Unit	G / S	RDL	5205894	5205901	5205902	5205903	5205904	5205905	5205906	5205907
Dissolved Arsenic	mg/L		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lab Filtration Performed				Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete

SAMPLE DESCRIPTION:				8195920402-W-23Q3	8195920402-W-23Q3-HS	QC-2023-07	5355921401-W-23Q3	5355921401-W-23Q3-HS	5355921400-W-23Q3	5355921400-W-23Q3-HS	7115920401-W-23Q3
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-08-08	2023-08-08	2023-08-08	2023-08-09	2023-08-09	2023-08-09	2023-08-09	2023-08-10
Parameter	Unit	G / S	RDL	5205908	5205909	5205910	5205911	5205912	5205913	5205914	5205915
Dissolved Arsenic	mg/L		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lab Filtration Performed				Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete

SAMPLE DESCRIPTION:				7115920401-W-23Q3-HS	7115920400-W-23Q3	7115920400-W-23Q3-HS	QC-2023-08		QC-2023-09		
SAMPLE TYPE:				Water	Water	Water	Water		Water		
DATE SAMPLED:				2023-08-10	2023-08-10	2023-08-10	2023-08-10		2023-08-10		
Parameter	Unit	G / S	RDL	5205916	5205917	5205918	5205919	RDL	5205920		
Dissolved Arsenic	mg/L		0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.001		
Lab Filtration Performed				Complete	Complete	Complete	Complete		Complete		

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5205894-5205920 < - Values refer to Report Detection Limit.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Subcontracted - 13C in DIC

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

Parameter	Unit	G / S	RDL	8195920403-W-23Q3	8195920403-W-23Q3-HS	8195920400-W-23Q3	8195920400-W-23Q3-HS	8195920404-W-23Q3	8195920404-W-23Q3-HS	8195920401-W-23Q3	8195920401-W-23Q3-HS
SAMPLE DESCRIPTION:				8195920403-W-23Q3	8195920403-W-23Q3-HS	8195920400-W-23Q3	8195920400-W-23Q3-HS	8195920404-W-23Q3	8195920404-W-23Q3-HS	8195920401-W-23Q3	8195920401-W-23Q3-HS
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-08-07	2023-08-07	2023-08-07	2023-08-07	2023-08-08	2023-08-08	2023-08-08	2023-08-08
13C in DIC*				-6.9	-5.2	NA	NA	-13.9	-13.6	-2.3	-1.3

Parameter	Unit	G / S	RDL	8195920402-W-23Q3	8195920402-W-23Q3-HS	QC-2023-07	5355921401-W-23Q3	5355921401-W-23Q3-HS	5355921400-W-23Q3	5355921400-W-23Q3-HS	7115920401-W-23Q3
SAMPLE DESCRIPTION:				8195920402-W-23Q3	8195920402-W-23Q3-HS	QC-2023-07	5355921401-W-23Q3	5355921401-W-23Q3-HS	5355921400-W-23Q3	5355921400-W-23Q3-HS	7115920401-W-23Q3
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-08-08	2023-08-08	2023-08-08	2023-08-09	2023-08-09	2023-08-09	2023-08-09	2023-08-10
13C in DIC*				-3.6	-3.2	-3.0	-17.1	-15.6	12.7	NA	-0.1

Parameter	Unit	G / S	RDL	7115920401-W-23Q3-HS	7115920400-W-23Q3-HS	QC-2023-08	QC-2023-09
SAMPLE DESCRIPTION:				7115920401-W-23Q3-HS	7115920400-W-23Q3-HS	QC-2023-08	QC-2023-09
SAMPLE TYPE:				Water	Water	Water	Water
DATE SAMPLED:				2023-08-10	2023-08-10	2023-08-10	2023-08-10
13C in DIC*				-0.1	0.0	0.2	NA

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5205894-5205901 Note: Performed by subcontracted laboratory.

5205902 Note: Performed by subcontracted laboratory.
NA-no signal

5205903-5205920 Note: Performed by subcontracted laboratory.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Subcontracted - 13C in DIC Isotope

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				QC-G-01-23Q3	8195920400-G-23Q3	7115920400-G-23Q3
SAMPLE TYPE:				Gas	Gas	Gas
DATE SAMPLED:				2023-08-10	2023-08-07	2023-08-10
Parameter	Unit	G / S	RDL	5205923	5205927	5205936
Subcontracted Analysis				**	**	**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5205923-5205936 Note: Performed by subcontracted laboratory.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis - DIC

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				8195920403-W-23Q3	8195920403-W-23Q3-HS	8195920400-W-23Q3	8195920400-W-23Q3-HS		8195920404-W-23Q3	8195920404-W-23Q3-HS
SAMPLE TYPE:				Water	Water	Water	Water		Water	Water
DATE SAMPLED:				2023-08-07	2023-08-07	2023-08-07	2023-08-07		2023-08-08	2023-08-08
Parameter	Unit	G / S	RDL	5205894	5205901	5205902	5205903	RDL	5205904	5205905
Dissolved Inorganic Carbon	mg/L		0.5	68.1	67.9	2.1	2.2	5	227	222

SAMPLE DESCRIPTION:				8195920401-W-23Q3	8195920401-W-23Q3-HS	8195920402-W-23Q3	8195920402-W-23Q3-HS	QC-2023-07		5355921401-W-23Q3	5355921401-W-23Q3-HS
SAMPLE TYPE:				Water	Water	Water	Water	Water		Water	Water
DATE SAMPLED:				2023-08-08	2023-08-08	2023-08-08	2023-08-08	2023-08-08		2023-08-09	2023-08-09
Parameter	Unit	G / S	RDL	5205906	5205907	5205908	5205909	5205910	RDL	5205911	5205912
Dissolved Inorganic Carbon	mg/L		0.5	34.5	34.3	38.3	38.1	34.5	5	189	157

SAMPLE DESCRIPTION:				5355921400-W-23Q3	5355921400-W-23Q3-HS		7115920401-W-23Q3	7115920401-W-23Q3-HS		7115920400-W-23Q3	7115920400-W-23Q3-HS
SAMPLE TYPE:				Water	Water		Water	Water		Water	Water
DATE SAMPLED:				2023-08-09	2023-08-09		2023-08-10	2023-08-10		2023-08-10	2023-08-10
Parameter	Unit	G / S	RDL	5205913	5205914	RDL	5205915	5205916	RDL	5205917	5205918
Dissolved Inorganic Carbon	mg/L		0.5	13.7	4.4	5	135	132	0.5	46.1	45.0

SAMPLE DESCRIPTION:				QC-2023-08		QC-2023-09
SAMPLE TYPE:				Water		Water
DATE SAMPLED:				2023-08-10		2023-08-10
Parameter	Unit	G / S	RDL	5205919	RDL	5205920
Dissolved Inorganic Carbon	mg/L		5	129	0.5	<0.5

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Certified By:

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CALGARY, ALBERTA
CANADA T2E 7P7
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				8195920403-W-23Q3	8195920403-W-23Q3-HS		8195920400-W-23Q3		8195920400-W-23Q3-HS		8195920404-W-23Q3
SAMPLE TYPE:				Water	Water		Water		Water		Water
DATE SAMPLED:				2023-08-07	2023-08-07		2023-08-07		2023-08-07		2023-08-08
Parameter	Unit	G / S	RDL	5205894	5205901	RDL	5205902	RDL	5205903	RDL	5205904
pH	pH Units	7.0-10.5	N/A	7.79	7.83	N/A	10.3	N/A	10.7	N/A	8.38
p - Alkalinity (as CaCO3)	mg/L		5	<5	<5	5	71	5	148	5	10
T - Alkalinity (as CaCO3)	mg/L		5	244	241	5	118	5	208	5	850
Bicarbonate	mg/L		5	298	294	5	<5	5	<5	5	1010
Carbonate	mg/L		5	<5	<5	5	56	5	72	5	12
Hydroxide	mg/L		5	<5	<5	5	8	5	30	5	<5
Electrical Conductivity	uS/cm		5	5580	5590	5	29700	5	28700	5	1800
Chloride	mg/L	(250)	1.5	1760	1750	12	10800	12	10300	1.0	72.9
Fluoride	mg/L	1.5	0.03	0.28	0.28	0.1	<0.1	0.1	<0.1	0.01	0.74
Nitrate	mg/L	45	0.5	<0.5	<0.5	1.0	<1.0	1.0	<1.0	0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrite	mg/L	3	0.10	<0.10	<0.10	0.40	<0.40	0.40	<0.40	0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L	(500)	1.0	1.6	1.4	1.0	4.0	1.0	4.1	1.0	<1.0
Dissolved Calcium	mg/L		0.3	20.7	20.7	0.5	535	0.4	520	0.3	3.9
Dissolved Magnesium	mg/L		0.2	3.4	3.4	0.9	7.0	0.9	<0.9	0.2	0.5
Dissolved Sodium	mg/L	(200)	0.6	1150	1150	0.9	5870	0.9	5680	0.6	473
Dissolved Potassium	mg/L		0.6	11.2	11.8	1.4	97.3	1.3	125	0.6	8.2
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	0.6
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.127	0.120	0.005	<0.005	0.005	<0.005	0.005	0.030
Sodium Adsorption Ratio				61.7	61.7		69.0		68.5		59.9
Calculated TDS	mg/L		0.6	3090	3080	0.6	17400	0.6	16800	0.6	1070
Hardness	mg CaCO3/L		0.5	65.7	65.7	0.5	1360	0.5	1300	0.5	11.8
Ion Balance	%		1	95	95	1	93	1	94	1	110
Lab Filtration on Routine for IC				Complete	Complete		Complete		Complete		Complete

Certified By:

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CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				8195920404-W-23Q3-HS		8195920401-W-23Q3		8195920401-W-23Q3-HS	8195920402-W-23Q3	8195920402-W-23Q3-HS	QC-2023-07
SAMPLE TYPE:				Water		Water		Water	Water	Water	Water
DATE SAMPLED:				2023-08-08		2023-08-08		2023-08-08	2023-08-08	2023-08-08	2023-08-08
Parameter	Unit	G / S	RDL	5205905	RDL	5205906	RDL	5205907	5205908	5205909	5205910
pH	pH Units	7.0-10.5	N/A	8.34	N/A	7.51	N/A	7.62	7.66	7.59	7.56
p - Alkalinity (as CaCO3)	mg/L		5	7	5	<5	5	<5	<5	<5	<5
T - Alkalinity (as CaCO3)	mg/L		5	847	5	126	5	129	144	142	129
Bicarbonate	mg/L		5	1020	5	154	5	157	175	173	157
Carbonate	mg/L		5	8	5	<5	5	<5	<5	<5	<5
Hydroxide	mg/L		5	<5	5	<5	5	<5	<5	<5	<5
Electrical Conductivity	uS/cm		5	1770	5	19000	5	19100	13700	13700	18900
Chloride	mg/L	(250)	1.0	70.0	6.0	6680	6.0	6500	4810	4560	6610
Fluoride	mg/L	1.5	0.01	0.75	0.1	0.2	0.1	<0.1	<0.1	0.1	0.2
Nitrate	mg/L	45	0.5	<0.5	1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
Nitrite	mg/L	3	0.05	<0.05	0.40	<0.40	0.40	<0.40	<0.40	<0.40	<0.40
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02
Sulfate	mg/L	(500)	1.0	<1.0	1.0	41.0	1.0	39.3	1.9	2.8	39.9
Dissolved Calcium	mg/L		0.3	3.9	0.3	218	0.3	220	121	120	220
Dissolved Magnesium	mg/L		0.2	0.5	0.2	41.6	0.2	41.6	19.2	19.1	41.8
Dissolved Sodium	mg/L	(200)	0.6	469	0.7	3720	0.6	3690	2730	2700	3640
Dissolved Potassium	mg/L		0.6	6.8	0.6	42.5	0.6	44.0	25.2	24.7	42.9
Dissolved Iron	mg/L	(0.3)	0.1	0.6	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.031	0.005	0.222	0.005	0.211	0.314	0.298	0.222
Sodium Adsorption Ratio				59.4		60.5		59.8	60.8	60.4	58.9
Calculated TDS	mg/L		0.6	1060	0.6	10800	0.6	10600	7790	7510	10700
Hardness	mg CaCO3/L		0.5	11.8	0.5	716	0.5	721	381	378	721
Ion Balance	%		1	110	1	92	1	94	92	96	92
Lab Filtration on Routine for IC				Complete		Complete		Complete	Complete	Complete	Complete

Certified By:

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AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				5355921401-W-23Q3	5355921401-W-23Q3-HS		5355921400-W-23Q3		5355921400-W-23Q3-HS		7115920401-W-23Q3
SAMPLE TYPE:				Water	Water		Water		Water		Water
DATE SAMPLED:				2023-08-09	2023-08-09		2023-08-09		2023-08-09		2023-08-10
Parameter	Unit	G / S	RDL	5205911	5205912	RDL	5205913	RDL	5205914	RDL	5205915
pH	pH Units	7.0-10.5	N/A	8.58	8.96	N/A	7.48	N/A	8.74	N/A	9.78
p - Alkalinity (as CaCO3)	mg/L		5	24	47	5	<5	5	<5	5	164
T - Alkalinity (as CaCO3)	mg/L		5	749	605	5	55	5	27	5	636
Bicarbonate	mg/L		5	854	623	5	68	5	22	5	376
Carbonate	mg/L		5	29	57	5	<5	5	6	5	197
Hydroxide	mg/L		5	<5	<5	5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		5	1800	1570	5	23300	5	20100	5	1560
Chloride	mg/L	(250)	1.0	14.6	31.2	12	8300	6.0	7070	1.0	83.9
Fluoride	mg/L	1.5	0.01	0.15	0.11	0.1	<0.1	0.1	<0.1	0.01	1.23
Nitrate	mg/L	45	0.5	<0.5	<0.5	1.0	<1.0	1.0	<1.0	0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrite	mg/L	3	0.05	<0.05	<0.05	0.40	<0.40	0.40	<0.40	0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L	(500)	1.0	201	175	1.0	<1.0	1.0	2.3	1.0	1.2
Dissolved Calcium	mg/L		0.3	15.3	4.5	0.3	271	0.3	209	0.3	1.5
Dissolved Magnesium	mg/L		0.2	10.0	6.8	0.2	66.0	0.2	44.4	0.2	0.3
Dissolved Sodium	mg/L	(200)	0.6	437	387	0.6	4460	0.6	3880	0.6	385
Dissolved Potassium	mg/L		0.6	9.2	8.1	0.6	31.3	0.6	28.4	0.6	5.3
Dissolved Iron	mg/L	(0.3)	0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	0.2
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.038	0.006	0.005	0.606	0.005	<0.005	0.005	<0.005
Sodium Adsorption Ratio				21.3	26.9		63.0		63.6		75.0
Calculated TDS	mg/L		0.6	1140	976	0.6	13200	0.6	11300	0.6	859
Hardness	mg CaCO3/L		0.5	79.4	39.2	0.5	948	0.5	705	0.5	5.0
Ion Balance	%		1	106	107	1	91	1	92	1	112
Lab Filtration on Routine for IC				Complete	Complete		Complete		Complete		Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

SAMPLE DESCRIPTION:				7115920401-W-23Q3-HS		7115920400-W-23Q3		7115920400-W-23Q3-HS		QC-2023-08	QC-2023-09
SAMPLE TYPE:				Water		Water		Water		Water	Water
DATE SAMPLED:				2023-08-10		2023-08-10		2023-08-10		2023-08-10	2023-08-10
Parameter	Unit	G / S	RDL	5205916	RDL	5205917	RDL	5205918	RDL	5205919	5205920
pH	pH Units	7.0-10.5	N/A	9.66	N/A	7.96	N/A	7.87	N/A	9.70	4.43
p - Alkalinity (as CaCO3)	mg/L		5	150	5	<5	5	<5	5	151	<5
T - Alkalinity (as CaCO3)	mg/L		5	600	5	177	5	171	5	612	<5
Bicarbonate	mg/L		5	366	5	216	5	209	5	378	<5
Carbonate	mg/L		5	180	5	<5	5	<5	5	182	<5
Hydroxide	mg/L		5	<5	5	<5	5	<5	5	<5	<5
Electrical Conductivity	uS/cm		5	1530	5	11800	5	10400	5	1530	<5
Chloride	mg/L	(250)	1.0	86.0	6.0	3920	3.0	3570	1.0	88.2	<1.0
Fluoride	mg/L	1.5	0.01	1.22	0.1	<0.1	0.06	<0.06	0.01	1.22	<0.01
Nitrate	mg/L	45	0.5	<0.5	1.0	<1.0	5	<5	0.5	<0.5	<0.5
Nitrate-N	mg/L	10	0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02
Nitrite	mg/L	3	0.05	<0.05	0.40	<0.40	0.20	<0.20	0.05	<0.05	<0.05
Nitrite-N	mg/L	1	0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02	<0.02
Sulfate	mg/L	(500)	1.0	1.6	1.0	<1.0	1.0	<1.0	1.0	1.5	<1.0
Dissolved Calcium	mg/L		0.3	1.4	0.3	80.4	0.3	69.1	0.3	1.4	<0.3
Dissolved Magnesium	mg/L		0.2	0.3	0.2	21.8	0.2	19.6	0.2	0.3	<0.2
Dissolved Sodium	mg/L	(200)	0.6	383	0.6	2370	0.6	2100	0.6	371	<0.6
Dissolved Potassium	mg/L		0.6	4.5	0.6	18.7	0.6	22.9	0.6	4.6	<0.6
Dissolved Iron	mg/L	(0.3)	0.1	0.3	0.1	<0.1	0.1	<0.1	0.1	0.3	<0.1
Dissolved Manganese	mg/L	0.12 (0.02)	0.005	0.005	0.005	0.237	0.005	0.320	0.005	0.005	<0.005
Sodium Adsorption Ratio				76.6		60.5		57.4		74.2	0
Calculated TDS	mg/L		0.6	837	0.6	6520	0.6	5880	0.6	835	<0.6
Hardness	mg CaCO3/L		0.5	4.7	0.5	291	0.5	253	0.5	4.7	<0.5
Ion Balance	%		1	116	1	96	1	93	1	110	13
Lab Filtration on Routine for IC				Complete		Complete		Complete		Complete	Complete

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Package - Routine Chemistry Water Analysis - Field Filtered Cations

DATE RECEIVED: 2023-08-11

DATE REPORTED: 2023-08-18

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to 2022 Canadian Drinking Water Quality MAC (AO)
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5205894-5205920 < - Values refer to Report Detection Limits.
SAR is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.
Ion Balance is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Hardness is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
Calculated TDS is a calculated parameter. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Aug 18, 2023

PARAMETER	Batch	Sample Id	DUPLICATE Dup #1	DUPLICATE Dup #2	DUPLICATE RPD	Method Blank	REFERENCE MATERIAL Measured Value	REFERENCE MATERIAL Acceptable Limits Lower	REFERENCE MATERIAL Acceptable Limits Upper	METHOD BLANK SPIKE Recovery	METHOD BLANK SPIKE Acceptable Limits Lower	METHOD BLANK SPIKE Acceptable Limits Upper	MATRIX SPIKE Recovery	MATRIX SPIKE Acceptable Limits Lower	MATRIX SPIKE Acceptable Limits Upper
Water Package - Routine Chemistry Water Analysis - Field Filtered Cations															
pH	5207841	5207841	7.49	7.51	0.3%	N/A	102%	90%	110%						
p - Alkalinity (as CaCO3)	5207841	5207841	<5	<5	NA	< 5	NA	80%	120%						
T - Alkalinity (as CaCO3)	5207841	5207841	777	790	1.7%	< 5	97%	80%	120%						
Bicarbonate	5207841	5207841	948	964	1.7%	< 5									
Carbonate	5207841	5207841	<5	<5	NA	< 5									
Hydroxide	5207841	5207841	<5	<5	NA	< 5									
Electrical Conductivity	5207841	5207841	1850	1870	0.6%	< 5	103%	90%	110%						
Chloride	5206120	5206120	79.8	77.5	2.8%	< 1.0	100%	70%	130%	92%	80%	120%	NA	70%	130%
Fluoride	5206120	5206120	<0.1	<0.1	NA	< 0.01	98%	70%	130%	93%	80%	120%	100%	70%	130%
Nitrate	5206120	5206120	<1.0	<1.0	NA	< 0.5	101%	70%	130%	98%	80%	120%	101%	70%	130%
Nitrite	5206120	5206120	<0.40	<0.40	NA	< 0.05	97%	70%	130%	93%	80%	120%	97%	70%	130%
Sulfate	5206120	5206120	536	522	2.6%	< 1.0	101%	70%	130%	99%	80%	120%	NA	70%	130%
Dissolved Calcium	5205894	5205894	20.7	20.8	0.5%	< 0.3	101%	70%	130%	102%	80%	120%	NA	70%	130%
Dissolved Magnesium	5205894	5205894	3.4	3.4	0.0%	< 0.2	102%	70%	130%	99%	80%	120%	NA	70%	130%
Dissolved Sodium	5205894	5205894	1150	1150	0.0%	< 0.6	104%	70%	130%	109%	80%	120%	NA	70%	130%
Dissolved Potassium	5205894	5205894	11.2	11.9	5.4%	< 0.6	105%	70%	130%	110%	80%	120%	NA	70%	130%
Dissolved Iron	5205894	5205894	<0.1	<0.1	NA	< 0.1	103%	70%	130%	100%	80%	120%	100%	70%	130%
Dissolved Manganese	5205894	5205894	0.127	0.128	0.9%	< 0.005	103%	70%	130%	100%	80%	120%	NA	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

PARAMETER	Batch	Sample Id	DUPLICATE Dup #1	DUPLICATE Dup #2	DUPLICATE RPD	Method Blank	REFERENCE MATERIAL Measured Value	REFERENCE MATERIAL Acceptable Limits Lower	REFERENCE MATERIAL Acceptable Limits Upper	METHOD BLANK SPIKE Recovery	METHOD BLANK SPIKE Acceptable Limits Lower	METHOD BLANK SPIKE Acceptable Limits Upper	MATRIX SPIKE Recovery	MATRIX SPIKE Acceptable Limits Lower	MATRIX SPIKE Acceptable Limits Upper
Water Package - Routine Chemistry Water Analysis - Field Filtered Cations															
pH	5205907	5205907	7.62	7.66	0.5%	N/A	102%	90%	110%						
p - Alkalinity (as CaCO3)	5205907	5205907	<5	<5	NA	< 5	NA	80%	120%						
T - Alkalinity (as CaCO3)	5205907	5205907	129	128	0.5%	< 5	96%	80%	120%						
Bicarbonate	5205907	5205907	157	156	0.5%	< 5									
Carbonate	5205907	5205907	<5	<5	NA	< 5									
Hydroxide	5205907	5205907	<5	<5	NA	< 5									
Electrical Conductivity	5205907	5205907	19100	19000	0.3%	< 5	102%	90%	110%						
Chloride	5205912	5205912	27.2	27.1	0.4%	< 1.0	101%	70%	130%	91%	80%	120%	103%	70%	130%
Fluoride	5205912	5205912	<0.06	<0.06	NA	< 0.01	99%	70%	130%	90%	80%	120%	99%	70%	130%
Nitrate	5205912	5205912	<0.5	<0.5	NA	< 0.5	103%	70%	130%	97%	80%	120%	102%	70%	130%
Nitrite	5205912	5205912	<0.20	<0.20	NA	< 0.05	99%	70%	130%	93%	80%	120%	101%	70%	130%
Sulfate	5205912	5205912	175	175	0.2%	< 1.0	103%	70%	130%	98%	80%	120%	NA	70%	130%
Dissolved Calcium	5205920	5205920	<0.3	<0.3	NA	< 0.3	103%	70%	130%	102%	80%	120%	98%	70%	130%
Dissolved Magnesium	5205920	5205920	<0.2	<0.2	NA	< 0.2	103%	70%	130%	101%	80%	120%	99%	70%	130%
Dissolved Sodium	5205920	5205920	0.6	<0.6	NA	0.8	110%	70%	130%	119%	80%	120%	105%	70%	130%

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Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis (Continued)

RPT Date: Aug 18, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Dissolved Potassium	5205920	5205920	<0.6	<0.6	NA	< 0.6	107%	70%	130%	112%	80%	120%	103%	70%	130%
Dissolved Iron	5205920	5205920	<0.1	<0.1	NA	< 0.1	104%	70%	130%	100%	80%	120%	98%	70%	130%
Dissolved Manganese	5205920	5205920	<0.005	<0.005	NA	< 0.005	104%	70%	130%	101%	80%	120%	100%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

pH has been analyzed past the recommended holding time of 15 minutes from sampling (field measurement ideal if more accurate data required)

Nitrate and Nitrite: The regulatory hold time for the analysis of nitrate and/or nitrite in water is 72 hours.

Metals - Dissolved Arsenic															
Dissolved Arsenic	5200583	5200583	<0.01	<0.01	NA	< 0.001	98%	70%	130%	NA	80%	120%	100%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

Water Analysis - DIC															
Dissolved Inorganic Carbon	5158646	5158646	8.2	8.3	1.1%	< 0.5	116%	80%	120%	111%	80%	120%	112%	80%	120%

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Metals - Dissolved Arsenic															
Dissolved Arsenic	5200583	5200583	<0.01	<0.01	NA	< 0.001	99%	70%	130%	NA	80%	120%	103%	70%	130%

Comments: Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.
Duplicate NA: results are less than 5X the RDL and RDP will not be calculated.

Water Analysis - DIC															
Dissolved Inorganic Carbon	5158647	5158647	7.2	7.3	0.7%	< 0.5	119%	80%	120%	104%	80%	120%	117%	80%	120%

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Certified By:

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Results relate only to the items tested. Results apply to samples as received.

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E056715

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Arsenic	INST 0141	SM 3125 B	ICP-MS
Lab Filtration Performed			N/A
13C in DIC*		Subcontracted	
Subcontracted Analysis		Subcontracted	ION CHROMATOGRAPH
Dissolved Inorganic Carbon	INST 0170	SM 5310 B	COMBUSTION
pH	INST 0101, INST 0104	SM 4500 H+	PH METER
p - Alkalinity (as CaCO3)	INST-0100, INST-0101	SM 2320 B	TITRATION
T - Alkalinity (as CaCO3)	INST-0100, INST-0101	SM 2320 B	TITRATION
Bicarbonate	INST 0101	SM 2320 B	PC TITRATE
Carbonate	INST 0101	SM 2320 B	PC TITRATE
Hydroxide	INST 0101	SM 2320 B	PC TITRATE
Electrical Conductivity	INST 0101, INST 0120	SM 2510 B	CONDUCTIVITY METER
Chloride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate-N	INST 0150	SM 4110 B	CALCULATION
Nitrite	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrite-N	INST 0150	SM 4110 B	CALCULATION
Nitrate+Nitrite - Nitrogen	INST 0150	SM 4110 B	CALCULATION
Sulfate	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Dissolved Calcium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Magnesium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Sodium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Potassium	INST 0140	SM 3120B – R	ICP/OES
Dissolved Iron	INST 0140	SM 3120B – R	ICP/OES
Dissolved Manganese	INST 0140	SM 3120B – R	ICP/OES
Sodium Adsorption Ratio		CARTER & GREGORICH 2007	CALCULATION
Calculated TDS		SM 1030E	CALCULATION
Hardness		SM 2340 B	CALCULATION
Ion Balance		SM 1030E	CALCULATION
Lab Filtration on Routine for IC			N/A

Results relate only to the items tested. Results apply to samples as received.

11-AUG '23 AM 8:14 5C

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com

P: 780.395.2525 · F: 780.462.2490

Chain of Custody Record

Laboratory Use Only
Arrival Temperature: 4 · 4
AGAT Job Number: 23E056715

Notes: '23 AUG 10 5:55 PM

Report Information

Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Invoice To

Same Yes ☑ / No ☐

Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Report Information

1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: QuestGW
Email: questgw@stantec.com

Requirements (Check one)

☐ CCME ☐ AB Tier 1 ☐ BC CSR

☐ Agricultural	☐ Agricultural	☐ AW
☐ Industrial	☐ Industrial	☐ IW
☐ Residential/Park	☐ Residential/Park	☐ LW
☐ Commercial	☐ Commercial	☐ DW
☐ Drinking Water	☐ Natural Area	
☐ FWAL		

☐ Other
☐ D50 (Drilling) ☐ SPIGEC

Report Format

☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)

Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours

RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.

Date Required:

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	8195920403-W-2303	Water	2023/08/07 1125		4						X	X	X	X			
	8195920403-W-2303-HS		2023/08/07 1123		4						X	X	X	X			
	8195920400-W-2303		2023/08/07 1535		4						X	X	X	X			
	8195920400-W-2303-HS		2023/08/07 1467		4						X	X	X	X			
	8195920404-W-2303		2023/08/08 1105		4						X	X	X	X			
	8195920404-W-2303-HS		2023/08/08 1025		4						X	X	X	X			
	8195920401-W-2303		2023/08/08 1221		4						X	X	X	X			
	8195920401-W-2303-HS		2023/08/08 1330		4						X	X	X	X			
	8195920402-W-2303		2023/08/08 1535		4						X	X	X	X			
	8195920402-W-2303-HS		2023/08/08 1458		4						X	X	X	X			
	QC-2023607		2023/08/08 1545		4						X	X	X	X			

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
Taylor Harris	2023/08/10 17:55		
		Sam Cruz	8/10/23

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Page 1 of 3

E 27502

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Chain of Custody Record

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Laboratory Use Only

Arrival Temperature:

AGAT Job Number: 23E056715

Notes: '23 AUG 10 5:55 PM

Report Information

Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information

1. Name: Darren Heck
   Email: darren.heck@stantec.com
2. Name: QuestGW
   Email: questgw@stantec.com

Report Format

☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)

Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours

RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.

Date Required:

Invoice To Same Yes ☑ / No ☐

Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements *(Check one)*

☐ CCME ☐ AB Tier 1 ☐ BC CSR

☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL

☐ Other
☐ D50 (Drilling) ☐ SPIGEC

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTA NERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	5355921401-W-23Q3	Water	2023/08/09 1154		4						X	X	X	X			
	5355921401-W-23Q3-HS		2023/08/09 1035		4						X	X	X	X			
	5355921400-W-23Q3		2023/08/09 1620		4						X	X	X	X			
	5355921400-W-23Q3-HS		2023/08/09 1233		4						X	X	X	X			
	7115920401-W-23Q3		2023/08/10 1145		4						X	X	X	X			
	7115920401-W-23Q3-HS		2023/08/10 1039		4						X	X	X	X			
	7115920400-W-23Q3		2023/08/10 1439		4						X	X	X	X			
	7115920400-W-23Q3-HS		2023/08/10 1313		4						X	X	X	X			
	QC-2023-08		2023/08/10 1501		4						X	X	X	X			
	QC-2023-09		2023/08/10 1532		4						X	X	X	X			
	QC-G-01-23Q3	Gas	2023/08/10 1550		1									X	X		

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Taylor Harris	2023/08/10 17:55		

APPROVED AUG 11 2023

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Page 2 of 3

Nº:

Document # DIV-175-1504.001 Date Revised: May 29, 2018

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Chain of Custody Record

P: 780.395.2525 · F: 780.462.2490

Laboratory Use Only

Arrival Temperature:

AGAT Job Number: 23E056715

Notes:

'23 AUG 10 5:55 PM

Report Information

Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information

1. Name: Darren Heck
   Email: darren.heck@stantec.com
2. Name: QuestGW
   Email: questgw@stantec.com

Report Format

☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)

Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours

RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.

Date Required:

Invoice To Same Yes ☑ / No ☐

Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements *(Check one)*

☐ CCME ☐ AB Tier 1 ☐ BC CSR

☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL

☐ Other
☐ D50 (Drilling) ☐ SPIGEC

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTA NERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition								PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	8195920400-G-2303	Gas	2023/08/07 1540		2									X	X									
	7115920400-G-2303	Gas	2023/08/10 1444		2									X	X									

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
Taylor Harris	2023/08/10 17:55		

RECEIVED AUG 11 2023

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Page 3 of 3

Nº:

Document #: DIV-115-1504.002 Date Revised: May 28, 2014

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: D/O Prepaid Collect

Waybill#

Branch: EDM GP FN FM RD VAN LYD FSJ EST SASK Other:

If multiple sites were submitted at once: Yes No

Custody Seal Intact: Yes No NA

TAT: <24hr 24-48hr 48-72hr Reg Other

Cooler Quantity: 3

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes No

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry: —

Hydrocarbons: Earliest Expiry —

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES NO Precaution Taken:

Legal Samples: Yes No

International Samples: Yes No

Tape Sealed: Yes No

Coolant Used: Icepack Bagged Ice Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) 8.7 + 8.8 + 8.9 = 8.8 °C 2 (Bottle/Jar) 8.6 + 8.7 + 8.8 = 8.7 °C

3 (Bottle/Jar) 8.8 + 8.9 + 9 = 8.9 °C 4 (Bottle/Jar) ___ + ___ + ___ = ___ °C

5 (Bottle/Jar) ___ + ___ + ___ = ___ °C 6 (Bottle/Jar) ___ + ___ + ___ = ___ °C

7 (Bottle/Jar) ___ + ___ + ___ = ___ °C 8 (Bottle/Jar) ___ + ___ + ___ = ___ °C

9 (Bottle/Jar) ___ + ___ + ___ = ___ °C 10 (Bottle/Jar) ___ + ___ + ___ = ___ °C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 23E056715

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other:

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial _____

General Comments:

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: Jazoo Prepaid Collect

Waybill#_____

Branch: EDM GP FN FM RD VAN LYD FSJ EST SASK Other:___

If multiple sites were submitted at once: Yes No

Custody Seal Intact: Yes No NA

TAT: <24hr 24-48hr 48-72hr Reg Other_____

Cooler Quantity: 3L

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes No

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry:_____

Hydrocarbons: Earliest Expiry _____

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES NO Precaution Taken:_____

Legal Samples: Yes No

International Samples: Yes No

Tape Sealed: Yes No

Coolant Used: Icepack Bagged Ice Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) 5 + 5 + 5 = 5 °C 2 (Bottle/Jar) 5 + 6 + 5 = 5 °C

3 (Bottle/Jar)___+___+___=___°C 4 (Bottle/Jar)___+___+___=___°C

5 (Bottle/Jar)___+___+___=___°C 6 (Bottle/Jar)___+___+___=___°C

7 (Bottle/Jar)___+___+___=___°C 8 (Bottle/Jar)___+___+___=___°C

9 (Bottle/Jar)___+___+___=___°C 10 (Bottle/Jar)___+___+___=___°C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 23E056715

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other: _____

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial_____

General Comments: _____

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113
ATTENTION TO: REED LANNAN
PROJECT:
AGAT WORK ORDER: 23C057048
OCCUPATIONAL HYGIENE REVIEWED BY: Bernie Diep, Analyst
DATE REPORTED: Aug 24, 2023
PAGES (INCLUDING COVER): 5
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 299-2000

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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AGAT Laboratories

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CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C057048

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB1A | DATE RECEIVED: Aug 11, 2023

DATE SAMPLED: Aug 10, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: NOT AVAILABLE; TAG#5205936B; CLIENT ID:7115920400-G-23Q3

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen (H2)	%	<0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Oxygen (O2)	%	0.90		0.01	Aug 17, 2023	BD	Aug 10, 2023
Nitrogen (N2)	%	3.5		0.1	Aug 17, 2023	BD	Aug 10, 2023
Carbon Dioxide (CO2)	%	0.10		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Aug 17, 2023	BD	Aug 10, 2023
Methane (C1)	%	95.27		0.01	Aug 17, 2023	BD	Aug 10, 2023
Ethane (C2)	%	0.14		0.01	Aug 17, 2023	BD	Aug 10, 2023
Propane (C3)	%	0.008		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Butane (IC4)	%	0.002		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Butane (NC4)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Pentane (IC5)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Pentane (NC5)	%	0.002		0.001	Aug 17, 2023	BD	Aug 10, 2023
Hexanes (C6)	%	0.010		0.001	Aug 17, 2023	BD	Aug 10, 2023
Heptanes (C7)	%	0.034		0.001	Aug 17, 2023	BD	Aug 10, 2023
Octanes (C8)	%	0.018		0.001	Aug 17, 2023	BD	Aug 10, 2023
Nonanes (C9)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
Decanes+ (C10+)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

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Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C057048

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB3B | DATE RECEIVED: Aug 11, 2023

DATE SAMPLED: Aug **07**, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: NOT AVAILABLE; TAG#5205927A; CLIENT ID:819520400-G-23Q3

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen (H2)	%	0.24		0.01	Aug 17, 2023	BD	Aug 10, 2023
Oxygen (O2)	%	1.97		0.01	Aug 17, 2023	BD	Aug 10, 2023
Nitrogen (N2)	%	8.1		0.1	Aug 17, 2023	BD	Aug 10, 2023
Carbon Dioxide (CO2)	%	0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Aug 17, 2023	BD	Aug 10, 2023
Methane (C1)	%	89.59		0.01	Aug 17, 2023	BD	Aug 10, 2023
Ethane (C2)	%	0.03		0.01	Aug 17, 2023	BD	Aug 10, 2023
Propane (C3)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Butane (IC4)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Butane (NC4)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Pentane (IC5)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Pentane (NC5)	%	0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
Hexanes (C6)	%	0.007		0.001	Aug 17, 2023	BD	Aug 10, 2023
Heptanes (C7)	%	0.030		0.001	Aug 17, 2023	BD	Aug 10, 2023
Octanes (C8)	%	0.018		0.001	Aug 17, 2023	BD	Aug 10, 2023
Nonanes (C9)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
Decanes+ (C10+)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

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2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C057048

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB5C | DATE RECEIVED: Aug 11, 2023

DATE SAMPLED: Aug 10, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: NOT AVAILABLE; TAG#5205923A; CLIENT ID:QC-G-01-23Q3

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen (H2)	%	<0.01		0.01	Aug 17, 2023	BD	Aug 10, 2023
Oxygen (O2)	%	0.84		0.01	Aug 17, 2023	BD	Aug 10, 2023
Nitrogen (N2)	%	3.2		0.1	Aug 17, 2023	BD	Aug 10, 2023
Carbon Dioxide (CO2)	%	0.11		0.01	Aug 17, 2023	BD	Aug 10, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Aug 17, 2023	BD	Aug 10, 2023
Methane (C1)	%	95.60		0.01	Aug 17, 2023	BD	Aug 10, 2023
Ethane (C2)	%	0.14		0.01	Aug 17, 2023	BD	Aug 10, 2023
Propane (C3)	%	0.008		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Butane (IC4)	%	0.002		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Butane (NC4)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
I-Pentane (IC5)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
N-Pentane (NC5)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
Hexanes (C6)	%	0.005		0.001	Aug 17, 2023	BD	Aug 10, 2023
Heptanes (C7)	%	0.021		0.001	Aug 17, 2023	BD	Aug 10, 2023
Octanes (C8)	%	0.013		0.001	Aug 17, 2023	BD	Aug 10, 2023
Nonanes (C9)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023
Decanes+ (C10+)	%	<0.001		0.001	Aug 17, 2023	BD	Aug 10, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By:

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2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C057048

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Occupational Hygiene Analysis			
Helium (He)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen (H2)	HC-0160	GPA 2286-14	GC/TCD/FID
Oxygen (O2)	HC-0160	GPA 2286-14	GC/TCD/FID
Nitrogen (N2)	HC-0160	GPA 2286-14	GC/TCD/FID
Carbon Dioxide (CO2)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen Sulphide (H2S)	HC-0160	GPA 2286-14	GC/TCD/FID
Methane (C1)	HC-0160	GPA 2286-14	GC/TCD/FID
Ethane (C2)	HC-0160	GPA 2286-14	GC/TCD/FID
Propane (C3)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Butane (IC4)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Butane (NC4)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Pentane (IC5)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Pentane (NC5)	HC-0160	GPA 2286-14	GC/TCD/FID
Hexanes (C6)	HC-0160	GPA 2286-14	GC/FID
Heptanes (C7)	HC-0160	GPA 2286-14	GC/FID
Octanes (C8)	HC-0160	GPA 2286-14	GC/FID
Nonanes (C9)	HC-0160	GPA 2286-14	GC/FID
Decanes+ (C10+)	HC-0160	GPA 2286-14	GC/FID

Results relate only to the items tested. Results apply to samples as received.

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C057048	Tag 5205923A QC-G-01-23Q3	N/A	Aug-10-2023

$\delta^{13}C_{CH4}$	$\delta^{13}C_{CO2}$	$\delta^{13}C_{ethane}$	$\delta^{13}C_{propane}$	$\delta^{13}C_{i-C4}$	$\delta^{13}C_{n-C4}$
-64.4	-11	-51	BDL	BDL	BDL

Comments:

BDL - Below Detection Limit

All measurements are reported in permil notation, on the VPDB scale for $\delta^{13}C$ and VSMOW scale for δD

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C057048	Tag 5205927B 819520400-G-23Q3	N/A	Aug-07-2023

$\delta^{13}C_{CH4}$	$\delta^{13}C_{CO2}$	$\delta^{13}C_{ethane}$	$\delta^{13}C_{propane}$	$\delta^{13}C_{i-C4}$	$\delta^{13}C_{n-C4}$
-63.4	-16	-51.5	BDL	BDL	BDL

Comments:

BDL - Below Detection Limit
All measurements are reported in permil notation, on the VPDB scale for $\delta^{13}C$ and VSMOW scale for δD

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C057048	Tag 5205936B 7115920400-G-23Q3	N/A	Aug-10-2023

$\delta^{13}C_{CH4}$	$\delta^{13}C_{CO2}$	$\delta^{13}C_{ethane}$	$\delta^{13}C_{propane}$	$\delta^{13}C_{i-C4}$	$\delta^{13}C_{n-C4}$
-64.1	-10.2	-50.4	-37.6	BDL	BDL

Comments:

BDL - Below Detection Limit
All measurements are reported in permil notation, on the VPDB scale for $\delta^{13}C$ and VSMOW scale for δD

AGAT Laboratories

6310 ROPER ROAD
EDMONTON, ALBERTA
CANADA T6B 3P9
TEL (780)395-2525
FAX (780)462-2490
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113
ATTENTION TO: Darren Heck
PROJECT: 123513522
AGAT WORK ORDER: 23E089182
WATER ANALYSIS REVIEWED BY: Jennifer Liu, Analyst
DATE REPORTED: Nov 13, 2023
PAGES (INCLUDING COVER): 13
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (780) 395-2525

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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AGAT Laboratories

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EDMONTON, ALBERTA
CANADA T6B 3P9
TEL (780)395-2525
FAX (780)462-2490
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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Metals - Dissolved - Alberta Tier 1 - Arsenic

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

				5355921400-W-	5355921401-W-	7115920400-W-	7115920401-W-	8195920400-W-	8195920401-W-	8195920402-W-	8195920403-W-
		SAMPLE DESCRIPTION:		23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2023-11-01	2023-11-01	2023-11-02	2023-11-02 22:51	2023-10-31 23:57	2023-10-31	2023-10-30	2023-10-30
Parameter	Unit	G / S	RDL	5426808	5426866	5426867	5426868	5426869	5426870	5426871	5426872
Dissolved Arsenic	mg/L		0.001	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	0.001

				8195920404-W-		
		SAMPLE DESCRIPTION:		23Q4	QC-2023-10	QC-2023-11
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2023-10-30	2023-10-31	2023-11-02
Parameter	Unit	G / S	RDL	5426873	5426874	5426875
Dissolved Arsenic	mg/L		0.001	<0.001	<0.001	<0.001

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5426808-5426875 < - Values refer to Report Detection Limit.

Analysis performed at AGAT Edmonton (unless marked by *)

Certified By:

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EDMONTON, ALBERTA
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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Routine Chemistry Water Analysis

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

				5355921400-W-23Q4		5355921401-W-23Q4		7115920400-W-23Q4		7115920401-W-23Q4
		SAMPLE DESCRIPTION:								
		SAMPLE TYPE:		Water		Water		Water		Water
		DATE SAMPLED:		2023-11-01		2023-11-01		2023-11-02		2023-11-02 22:51
Parameter	Unit	G / S	RDL	5426808	RDL	5426866	RDL	5426867	RDL	5426868
pH	pH Units		NA	7.51	NA	8.60	NA	7.87	NA	9.58
p - Alkalinity (as CaCO3)	mg/L		5	<5	5	29	5	<5	5	139
T - Alkalinity (as CaCO3)	mg/L		5	51	5	708	5	168	5	589
Bicarbonate	mg/L		5	62	5	863	5	204	5	719
Carbonate	mg/L		5	<5	5	57	5	<5	5	278
Hydroxide	mg/L		5	<5	5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		1	22300	1	1820	1	10500	1	1500
Fluoride	mg/L		0.08	<0.08	0.05	<0.05	0.05	<0.05	0.05	<0.05
Chloride	mg/L		6	8470	1	18	3	3770	1	89
Nitrite	mg/L		0.8	<0.8	0.05	<0.05	0.40	<0.40	0.05	<0.05
Nitrate	mg/L		0.6	<0.6	0.5	<0.5	0.5	<0.5	0.5	<0.5
Nitrite-N	mg/L		0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate-N	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L		1	528	1	185	1	<1	1	2
Dissolved Calcium	mg/L		0.3	263	0.3	15.7	0.3	69.4	0.3	1.9
Dissolved Magnesium	mg/L		0.2	63.2	0.2	10.0	0.2	18.5	0.2	0.4
Dissolved Sodium	mg/L		0.6	4130	0.6	417	0.6	2030	0.6	350
Dissolved Potassium	mg/L		0.6	19.4	0.6	6.1	0.6	14.3	0.6	2.6
Dissolved Iron	mg/L		0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	0.8
Dissolved Manganese	mg/L		0.030	0.520	0.005	0.027	0.030	0.236	0.005	0.014
Calculated TDS	mg/L		0.6	13500	0.6	1130	0.6	6000	0.6	1080
Sodium Adsorption Ratio	N/A		0.02	59.3	0.02	20.2	0.02	55.9	0.02	60.2
Hardness	mg CaCO3/L		1	917	1	80	1	249	1	6
Ion Balance	%		1	79	1	98	1	85	1	65

Certified By:

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TEL (780)395-2525
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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Routine Chemistry Water Analysis

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

				8195920400-W-		8195920401-W-		8195920402-W-		8195920403-W-
		SAMPLE DESCRIPTION:		23Q4		23Q4		23Q4		23Q4
		SAMPLE TYPE:		Water		Water		Water		Water
		DATE SAMPLED:		2023-10-31 23:57		2023-10-31		2023-10-30		2023-10-30
Parameter	Unit	G / S	RDL	5426869	RDL	5426870	RDL	5426871	RDL	5426872
pH	pH Units		NA	9.99	NA	7.68	NA	7.67	NA	8.06
p - Alkalinity (as CaCO3)	mg/L		5	55	5	<5	5	<5	5	<5
T - Alkalinity (as CaCO3)	mg/L		5	85	5	123	5	133	5	236
Bicarbonate	mg/L		5	104	5	150	5	162	5	288
Carbonate	mg/L		5	60	5	<5	5	<5	5	<5
Hydroxide	mg/L		5	26	5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		1	28600	1	18100	1	13300	1	5500
Fluoride	mg/L		0.20	<0.20	0.08	<0.08	0.05	<0.05	0.05	<0.05
Chloride	mg/L		15	10700	6	6950	3	4910	2	1860
Nitrite	mg/L		2.0	<2.0	0.8	<0.8	0.40	<0.40	0.05	<0.05
Nitrate	mg/L		1.5	<1.5	0.6	<0.6	0.5	<0.5	0.5	<0.5
Nitrite-N	mg/L		0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate-N	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L		2	15	1	43	1	4	1	3
Dissolved Calcium	mg/L		0.3	536	0.3	214	0.3	117	0.3	21.3
Dissolved Magnesium	mg/L		0.2	6.9	0.2	39.6	0.2	18.1	0.2	3.4
Dissolved Sodium	mg/L		0.6	5330	0.6	3390	0.6	2480	0.6	1060
Dissolved Potassium	mg/L		0.6	92.4	0.6	31.4	0.6	16.3	0.6	9.9
Dissolved Iron	mg/L		0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L		0.030	<0.030	0.030	0.207	0.030	0.277	0.009	0.093
Calculated TDS	mg/L		0.6	16800	0.6	10700	0.6	7630	0.6	3100
Sodium Adsorption Ratio	N/A		0.02	62.6	0.02	55.8	0.02	56.3	0.02	56.2
Hardness	mg CaCO3/L		1	1370	1	697	1	367	1	67
Ion Balance	%		1	85	1	81	1	82	1	83

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

6310 ROPER ROAD
EDMONTON, ALBERTA
CANADA T6B 3P9
TEL (780)395-2525
FAX (780)462-2490
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Routine Chemistry Water Analysis

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

Parameter	Unit	G / S	RDL	SAMPLE DESCRIPTION: 8195920404-W-23Q4 SAMPLE TYPE: Water DATE SAMPLED: 2023-10-30 5426873	RDL	QC-2023-10 Water 2023-10-31 5426874	RDL	QC-2023-11 Water 2023-11-02 5426875
pH	pH Units		NA	8.42	NA	7.56	NA	6.25
p - Alkalinity (as CaCO3)	mg/L		5	15	5	<5	5	<5
T - Alkalinity (as CaCO3)	mg/L		5	785	5	53	5	<5
Bicarbonate	mg/L		5	957	5	65	5	<5
Carbonate	mg/L		5	30	5	<5	5	<5
Hydroxide	mg/L		5	<5	5	<5	5	<5
Electrical Conductivity	uS/cm		1	1730	1	22300	1	3
Fluoride	mg/L		0.05	<0.05	0.08	<0.08	0.05	<0.05
Chloride	mg/L		1	70	6	8900	1	7
Nitrite	mg/L		0.05	<0.05	0.8	<0.8	0.05	<0.05
Nitrate	mg/L		0.5	<0.5	0.6	<0.6	0.5	<0.5
Nitrite-N	mg/L		0.01	<0.01	0.01	<0.01	0.01	<0.01
Nitrate-N	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02
Nitrate+Nitrite - Nitrogen	mg/L		0.02	<0.02	0.02	<0.02	0.02	<0.02
Sulfate	mg/L		1	<1	1	43	1	<1
Dissolved Calcium	mg/L		0.3	4.4	0.3	259	0.3	<0.3
Dissolved Magnesium	mg/L		0.2	0.6	0.2	62.1	0.2	<0.2
Dissolved Sodium	mg/L		0.6	436	0.6	4200	0.6	<0.6
Dissolved Potassium	mg/L		0.6	4.8	0.6	21.2	0.6	<0.6
Dissolved Iron	mg/L		0.1	0.7	0.1	<0.1	0.1	<0.1
Dissolved Manganese	mg/L		0.005	0.036	0.030	0.520	0.005	<0.005
Calculated TDS	mg/L		0.6	1020	0.6	13500	0.6	7.0
Sodium Adsorption Ratio	N/A		0.02	51.7	0.02	60.8	0.02	<0.02
Hardness	mg CaCO3/L		1	13	1	902	1	<1
Ion Balance	%		1	104	1	80	1	<1

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Routine Chemistry Water Analysis

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5426808 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

Balance Reviewed: Interference or Non- Measured Component

5426866-5426867 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

5426868 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

Balance Reviewed: Interference or Non- Measured Component

5426869 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

5426870 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

Balance Reviewed: Interference or Non- Measured Component

5426871-5426873 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

5426874 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

Balance Reviewed: Interference or Non- Measured Component

5426875 < - Values refer to Report Detection Limits.
If sodium results in mg/L are less than detection, SAR is non-calculable and is reported as 0.

Analysis performed at AGAT Edmonton (unless marked by *)

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Subcontracted - 13C in DIC

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

				5355921400-W-	5355921401-W-	7115920400-W-	7115920401-W-	8195920400-W-	8195920401-W-	8195920402-W-	8195920403-W-
			SAMPLE DESCRIPTION:	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4
			SAMPLE TYPE:	Water	Water	Water	Water	Water	Water	Water	Water
			DATE SAMPLED:	2023-11-01	2023-11-01	2023-11-02	2023-11-02 22:51	2023-10-31 23:57	2023-10-31	2023-10-30	2023-10-30
Parameter	Unit	G / S	RDL	5426808	5426866	5426867	5426868	5426869	5426870	5426871	5426872
d13C in DIC				12.2	-17.0	3.0	-0.4	NA	-2.0	-3.9	-5.8

				8195920404-W-	
			SAMPLE DESCRIPTION:	23Q4	QC-2023-10
			SAMPLE TYPE:	Water	Water
			DATE SAMPLED:	2023-10-30	2023-10-31
Parameter	Unit	G / S	RDL	5426873	5426874
d13C in DIC				-14.1	12.2

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5426808-5426868 Note: Performed by subcontracted laboratory.

5426869 Note: Performed by subcontracted laboratory.
NA-Tiny signal.

5426870-5426874 Note: Performed by subcontracted laboratory.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis - DIC

DATE RECEIVED: 2023-11-03

DATE REPORTED: 2023-11-13

				5355921400-W-	5355921401-W-	7115920400-W-	7115920401-W-	8195920400-W-	8195920401-W-	8195920402-W-	8195920403-W-
		SAMPLE DESCRIPTION:		23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4	23Q4
		SAMPLE TYPE:		Water	Water	Water	Water	Water	Water	Water	Water
		DATE SAMPLED:		2023-11-01	2023-11-01	2023-11-02	2023-11-02 22:51	2023-10-31 23:57	2023-10-31	2023-10-30	2023-10-30
Parameter	Unit	G / S	RDL	5426808	5426866	5426867	5426868	5426869	5426870	5426871	5426872
Dissolved Inorganic Carbon	mg/L		1.5	13.3	204	46.2	139	3.0	34.8	38.4	69.4

				8195920404-W-			
		SAMPLE DESCRIPTION:		23Q4	QC-2023-10		QC-2023-11
		SAMPLE TYPE:		Water	Water		Water
		DATE SAMPLED:		2023-10-30	2023-10-31		2023-11-02
Parameter	Unit	G / S	RDL	5426873	5426874	RDL	5426875
Dissolved Inorganic Carbon	mg/L		1.5	241	12.3	0.5	<0.5

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Nov 13, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Routine Chemistry Water Analysis															
pH	311	5426808	7.51	7.54	0.4%		99%	90%	110%						
p - Alkalinity (as CaCO3)	311	5426808	<5	<5	NA	< 5									
T - Alkalinity (as CaCO3)	311	5426808	51	52	1.5%	< 5	95%	80%	120%						
Bicarbonate	311	5426808	63	64	1.5%	< 5									
Carbonate	311	5426808	<5	<5	NA	< 5									
Hydroxide	311	5426808	<5	<5	NA	< 5									
Electrical Conductivity	311	5426808	22300	22200	0.5%	< 1	102%	90%	110%						
Fluoride	313	5426875	<0.05	<0.05	NA	< 0.05	105%	70%	130%	102%	80%	120%	97%	70%	130%
Chloride	313	5426875	7	7	0.5%	< 1	102%	70%	130%	99%	80%	120%	102%	70%	130%
Nitrite	313	5426875	<0.05	<0.05	NA	< 0.05	103%	70%	130%	97%	80%	120%	97%	70%	130%
Nitrate	313	5426875	<0.5	<0.5	NA	< 0.5	96%	70%	130%	96%	80%	120%	103%	70%	130%
Sulfate	313	5426875	<1	<1	NA	< 1	104%	70%	130%	100%	80%	120%	102%	70%	130%
Dissolved Calcium	313	5429680	269	269	0.2%	< 0.3	112%	70%	130%	95%	80%	120%	97%	70%	130%
Dissolved Magnesium	313	5429680	60.3	60.7	0.7%	< 0.2	107%	70%	130%	91%	80%	120%	100%	70%	130%
Dissolved Sodium	313	5429680	67.3	67.5	0.4%	< 0.6	106%	70%	130%	92%	80%	120%	99%	70%	130%
Dissolved Potassium	313	5429680	3.6	3.6	0.4%	< 0.6	102%	70%	130%	90%	80%	120%	100%	70%	130%
Dissolved Iron	313	5429680	<0.1	<0.1	NA	< 0.1	108%	70%	130%	93%	80%	120%	100%	70%	130%
Dissolved Manganese	313	5429680	0.028	0.028	0.5%	< 0.005	106%	70%	130%	95%	80%	120%	102%	70%	130%

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.
If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution.

Metals - Dissolved - Alberta Tier 1 - Arsenic															
Dissolved Arsenic	311	5426808	0.001	<0.001	NA	< 0.001	107%	70%	130%	101%	80%	120%	101%	70%	130%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Water Analysis - DIC															
Dissolved Inorganic Carbon	5334445	5334445	2.4	2.0	NA	< 0.5	114%	80%	120%	116%	80%	120%	97%	80%	120%

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Certified By:

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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AGAT Laboratories

6310 ROPER ROAD
EDMONTON, ALBERTA
CANADA T6B 3P9
TEL (780)395-2525
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http://www.agatlabs.com

Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23E089182

PROJECT: 123513522

ATTENTION TO: Darren Heck

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Arsenic	INOR-171-6202	SM 3125 B	ICP-MS
pH	INOR-171-6205	SM 4500 H+	PH METER
p - Alkalinity (as CaCO3)	INOR-171-6205	SM 2320 B	TITRATION
T - Alkalinity (as CaCO3)	INOR-171-6205	SM 2320 B	TITRATION
Bicarbonate	INOR-171-6205	SM 2320 B	PC TITRATE
Carbonate	INOR-171-6205	SM 2320 B	PC TITRATE
Hydroxide	INOR-171-6205	SM 2320 B	TITRATION
Electrical Conductivity	INOR-171-6205	SM 2510 B	CONDUCTIVITY METER
Fluoride	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Chloride	INOR-171-6200	SM 4110 B	ION CHROMATOGRAPH
Nitrite	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate	INOR-171-6200	SM 4110 B	ION CHROMATOGRAPH
Nitrite-N	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate-N	INST 0150	SM 4110 B	ION CHROMATOGRAPH
Nitrate+Nitrite - Nitrogen	INOR-171-6200	SM 4110 B	ION CHROMATOGRAPH
Sulfate	INOR-171-6200	SM 4110 B	ION CHROMATOGRAPH
Dissolved Calcium	INOR-171-6201	SM 3120 B	ICP/OES
Dissolved Magnesium	INST 0140	SM 3120 B	ICP/OES
Dissolved Sodium	INOR-171-6201	SM 3120 B	ICP/OES
Dissolved Potassium	INST 0140	SM 3120 B	ICP/OES
Dissolved Iron	INOR-171-6201	SM 3120 B	ICP/OES
Dissolved Manganese	INOR-171-6201	SM 3120 B	ICP/OES
Calculated TDS		SM 1030E	CALCULATION
Sodium Adsorption Ratio		CARTER & GREGORICH 2007	ICP/OES
Hardness		SM 3120 B	ICP/OES
Ion Balance		SM 1030E	CALCULATION
d13C in DIC		Subcontracted	ION CHROMATOGRAPH
Dissolved Inorganic Carbon	INST 0170	SM 5310 B	COMBUSTION

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com
P: 780.395.2525 · F: 780.462.2490

Chain of Custody Record

Laboratory Use Only
Arrival Temperature: 1.8°C
AGAT Job Number: 23 E089182

Notes:

Report Information
Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information
1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: QuestGW
Email: questgw@stantec.com

Report Format
☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours
Date Required:

RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION, CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED REGULAR TAT WILL BE DEFAULT.

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements (Check one)
☐ CCME ☐ AB Tier 1 ☐ BC CSR
☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL
☐ Other
☐ D50 (Drilling) ☐ SPIGEC

'23 NOV 2 5:10 PM

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	5355921400-W-23Q4	Water	Nov 1/23 1108		4						X	X	X	X			
	5355921401-W-23Q4		Nov 1/23 1344		4						X	X	X	X			
	7115920400-W-23Q4		Nov 2/23 1334		4						X	X	X	X			
	7115920401-W-23Q4		Nov 3/23 1057		4						X	X	X	X			
	8195920400-W-23Q4		Oct 31/23 1157		4						X	X	X	X			
	8195920401-W-23Q4		Oct 31/23 1447		4						X	X	X	X			
	8195920402-W-23Q4		Oct 30/23 1524		4						X	X	X	X			
	8195920403-W-23Q4		Oct 30/23 1353		4						X	X	X	X			
	8195920404-W-23Q4		Oct 30/23 1240		4						X	X	X	X			
	QC-2023-10		Oct 31/23 1557		4						X	X	X	X			
	QC-2023-11		Nov 3/23 1530		4						X	X	X	X			

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
Taylor Harris	2023/11/02 17:10		
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

Pink Copy - Client
Yellow Copy - AGA
White Copy- AGA

E 28269

AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com
P: 780.395.2525 · F: 780.462.2490

Chain of Custody Record

Laboratory Use Only
Arrival Temperature:
AGAT Job Number: 23E089182

Notes:

Report Information
Company: Stantec Consulting Ltd.
Contact: Darren Heck
Address: 200, 325 - 25 Street SE
Calgary, AB T2A 2H8
Phone: 403-716-8137 Fax:
LSD:
Client Project #: 123513522

Report Information
1. Name: Darren Heck
Email: darren.heck@stantec.com
2. Name: QuestGW
Email: questgw@stantec.com

Report Format
☐ Single Sample per page
☑ Multiple Samples per page
☑ Excel Format Included

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Less than 24 hours ☐ 24 to 48 hours ☐ 48 to 72 hours
RUSH TAT REQUESTS UPON FILLING OUT THIS SECTION CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS IF NOT COMPLETED REGULAR TAT WILL BE DEFAULT.
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/AFE#: SHELL STANDING OFFER

Requirements (Check one)
☐ CCME ☐ AB Tier 1 ☐ BC CSR
☐ Agricultural ☐ Agricultural ☐ AW
☐ Industrial ☐ Industrial ☐ IW
☐ Residential/Park ☐ Residential/Park ☐ LW
☐ Commercial ☐ Commercial ☐ DW
☐ Drinking Water ☐ Natural Area
☐ FWAL
☐ Other
☐ D50 (Drilling) ☐ SPIGEC

'23 NOV 2 5:09 PM

LABORATORY USE (LAB ID #)	SAMPLE IDENTIFICATION	SAMPLE MATRIX	DATE/TIME SAMPLED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	# OF CONTAINERS	Microtox	CCME PHC BTEX/F1-F4	Metals	AB Class II Landfill	Detailed Salinity	Routine Potability	Arsenic (Dissolved)	Dissolved Inorganic Caron (DIC)	δ13C DIC Isotope by UofC	Gas Composition	PRESERVED (Y/N)	CONTAMINATED/HAZARDOUS (Y/N)
	711592040D-G-2324	Gas	Nov 2/23 13:26		2										X		
	535592140D-G-2324	Gas	Nov 1/23 1118		2										X		
	819592040D-G-2324	Gas	Oct 31/23 1204		2										X		
	QC-2023-10-G	Gas	Nov 1/23 1141		1										X		

Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign)	Date/Time
Taylor Harris	2023/11/02 17:10		
Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Samples Relinquished By (Print Name and Sign)	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 2 of 2
N°:

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM

RECEIVING BASICS - Shipping

Company/Consultant: Stantec

Courier: – Prepaid Collect

Waybill#: –

Branch: EDM GP FN FM RD VAN LYD FSJ EST SASK Other:

If multiple sites were submitted at once: Yes No

Custody Seal Intact: Yes No NA

TAT: <24hr 24-48hr 48-72hr Reg Other

Cooler Quantity: 1

TIME SENSITIVE ISSUES - Shipping

ALREADY EXCEEDED HOLD TIME? Yes No

Inorganic Tests (Please Circle): Mibi , BOD , Nitrate/Nitrite , Turbidity , Color , Microtox , Ortho PO4 , Tedlar Bag , Residual Chlorine , Chlorophyll* , Chloroamines*

Earliest Expiry: –

Hydrocarbons: Earliest Expiry –

SAMPLE INTEGRITY - Shipping

Hazardous Samples: YES NO Precaution Taken:

Legal Samples: Yes No

International Samples: Yes No

Tape Sealed: Yes No

Coolant Used: Icepack Bagged Ice Free Ice Free Water None

Temperature (Bottles/Jars only) N/A if only Soil Bags Received

FROZEN (Please Circle if samples received Frozen)

1 (Bottle/Jar) – + – + – = 1.8 °C 2(Bottle/Jar)___+___+___=___°C

3 (Bottle/Jar)___+___+___=___°C 4 (Bottle/Jar)___+___+___=___°C

5 (Bottle/Jar)___+___+___=___°C 6 (Bottle/Jar)___+___+___=___°C

7 (Bottle/Jar)___+___+___=___°C 8 (Bottle/Jar)___+___+___=___°C

9 (Bottle/Jar)___+___+___=___°C 10 (Bottle/Jar)___+___+___=___°C

(If more than 10 coolers are received use another sheet of paper and attach)

LOGISTICS USE ONLY

Workorder No: 23E089182

Samples Damaged: Yes No If YES why?

No Bubble Wrap Frozen Courier

Other:

Account Project Manager: _____ have they been notified of the above issues: Yes No

Whom spoken to: _____ Date/Time: _____

CPM Initial_____

General Comments:

* Subcontracted Analysis (See CPM)

Date issued: March 11, 2020

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
SUITE 200, 325 25th St SE
CALGARY, AB T2A7H8
(403) 263-7113
ATTENTION TO: REED LANNAN
PROJECT:
AGAT WORK ORDER: 23C089755
OCCUPATIONAL HYGIENE REVIEWED BY: Amy Wu, Lab Technician A
DATE REPORTED: Nov 13, 2023
PAGES (INCLUDING COVER): 6
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 299-2000

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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CALGARY, ALBERTA
CANADA T2E 7P7
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Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C089755

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB1A | DATE RECEIVED: Nov 06, 2023

DATE SAMPLED: Nov 02, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: SAMPLE ID:5426928A; CLIENT ID:**7115920400-G-23Q4** , TAKEN @ 07:26

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	0.0176		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen (H2)	%	<0.01		0.01	Nov 09, 2023	SN	Nov 09, 2023
Oxygen (O2)	%	0.5907		0.01	Nov 09, 2023	SN	Nov 09, 2023
Nitrogen (N2)	%	2.6021		0.1	Nov 09, 2023	SN	Nov 09, 2023
Carbon Dioxide (CO2)	%	0.0966		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Nov 09, 2023	SN	Nov 09, 2023
Methane (C1)	%	96.5602		0.01	Nov 09, 2023	SN	Nov 09, 2023
Ethane (C2)	%	0.1205		0.01	Nov 09, 2023	SN	Nov 09, 2023
Propane (C3)	%	0.0066		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Butane (IC4)	%	0.0013		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Butane (NC4)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Pentane (IC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Pentane (NC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Hexanes (C6)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Heptanes (C7)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Octanes (C8)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Nonanes (C9)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Decanes+ (C10+)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By: Amy Wu

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Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C089755

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB4B | DATE RECEIVED: Nov 06, 2023

DATE SAMPLED: Nov 01, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: SAMPLE ID:5426946B; CLIENT ID:**5355921400-G-23Q4** , TAKEN @ 17:18

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen (H2)	%	0.3107		0.01	Nov 09, 2023	SN	Nov 09, 2023
Oxygen (O2)	%	1.0304		0.01	Nov 09, 2023	SN	Nov 09, 2023
Nitrogen (N2)	%	3.3059		0.1	Nov 09, 2023	SN	Nov 09, 2023
Carbon Dioxide (CO2)	%	0.0216		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Nov 09, 2023	SN	Nov 09, 2023
Methane (C1)	%	95.2888		0.01	Nov 09, 2023	SN	Nov 09, 2023
Ethane (C2)	%	0.0355		0.01	Nov 09, 2023	SN	Nov 09, 2023
Propane (C3)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Butane (IC4)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Butane (NC4)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Pentane (IC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Pentane (NC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Hexanes (C6)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Heptanes (C7)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Octanes (C8)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Nonanes (C9)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Decanes+ (C10+)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By: Amy Wu

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CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
http://www.agatlabs.com

Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C089755

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB5C | DATE RECEIVED: Nov 06, 2023

DATE SAMPLED: Oct 31, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: SAMPLE ID:5426947A; CLIENT ID:**8195920400-G-23Q4** , TAKEN @ 18:04

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen (H2)	%	0.2412		0.01	Nov 09, 2023	SN	Nov 09, 2023
Oxygen (O2)	%	2.1780		0.01	Nov 09, 2023	SN	Nov 09, 2023
Nitrogen (N2)	%	8.8333		0.1	Nov 09, 2023	SN	Nov 09, 2023
Carbon Dioxide (CO2)	%	0.0278		0.01	Nov 09, 2023	SN	Nov 09, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Nov 09, 2023	SN	Nov 09, 2023
Methane (C1)	%	88.6779		0.01	Nov 09, 2023	SN	Nov 09, 2023
Ethane (C2)	%	0.0378		0.01	Nov 09, 2023	SN	Nov 09, 2023
Propane (C3)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Butane (IC4)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Butane (NC4)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
I-Pentane (IC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
N-Pentane (NC5)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Hexanes (C6)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Heptanes (C7)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Octanes (C8)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Nonanes (C9)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023
Decanes+ (C10+)	%	<0.001		0.001	Nov 09, 2023	SN	Nov 09, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By: Amy Wu

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CANADA T2E 7P7
TEL (403)299-2000
FAX (403)299-2010
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Certificate of Analysis

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C089755

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

Gas C10+ (Including O2) (%)

SAMPLE TYPE: Gas | SAMPLE ID: TB7D | DATE RECEIVED: Nov 06, 2023

DATE SAMPLED: **Oct 3**1, 2023 | DATE REPORTED:

SAMPLE DESCRIPTION: SAMPLE ID:5426948A;CLIENT ID:QC-2023-10-G, TAKEN @ 17:41

PARAMETER	UNIT	RESULT	G / S	RDL	DATE ANALYZED	INITIAL	DATE PREPARED
Helium (He)	%	<0.01		0.01	Nov 09, 2023	AW	Nov 09, 2023
Hydrogen (H2)	%	0.5824		0.01	Nov 09, 2023	AW	Nov 09, 2023
Oxygen (O2)	%	1.0577		0.01	Nov 09, 2023	AW	Nov 09, 2023
Nitrogen (N2)	%	4.1735		0.1	Nov 09, 2023	AW	Nov 09, 2023
Carbon Dioxide (CO2)	%	0.0179		0.01	Nov 09, 2023	AW	Nov 09, 2023
Hydrogen Sulphide (H2S)	%	<0.0001		0.0001	Nov 09, 2023	AW	Nov 09, 2023
Methane (C1)	%	94.1250		0.01	Nov 09, 2023	AW	Nov 09, 2023
Ethane (C2)	%	0.0348		0.01	Nov 09, 2023	AW	Nov 09, 2023
Propane (C3)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
I-Butane (IC4)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
N-Butane (NC4)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
I-Pentane (IC5)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
N-Pentane (NC5)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
Hexanes (C6)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
Heptanes (C7)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
Octanes (C8)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
Nonanes (C9)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023
Decanes+ (C10+)	%	<0.001		0.001	Nov 09, 2023	AW	Nov 09, 2023

COMMENTS:

RDL - Reported Detection Limit; G / S - Guideline / Standard
Analysis Conducted Using GPA 2286-14 (Modified)

Certified By: Amy Wu

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CANADA T2E 7P7
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FAX (403)299-2010
http://www.agatlabs.com

Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 23C089755

PROJECT:

ATTENTION TO: REED LANNAN

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Occupational Hygiene Analysis			
Helium (He)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen (H2)	HC-0160	GPA 2286-14	GC/TCD/FID
Oxygen (O2)	HC-0160	GPA 2286-14	GC/TCD/FID
Nitrogen (N2)	HC-0160	GPA 2286-14	GC/TCD/FID
Carbon Dioxide (CO2)	HC-0160	GPA 2286-14	GC/TCD/FID
Hydrogen Sulphide (H2S)	HC-0160	GPA 2286-14	GC/TCD/FID
Methane (C1)	HC-0160	GPA 2286-14	GC/TCD/FID
Ethane (C2)	HC-0160	GPA 2286-14	GC/TCD/FID
Propane (C3)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Butane (IC4)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Butane (NC4)	HC-0160	GPA 2286-14	GC/TCD/FID
I-Pentane (IC5)	HC-0160	GPA 2286-14	GC/TCD/FID
N-Pentane (NC5)	HC-0160	GPA 2286-14	GC/TCD/FID
Hexanes (C6)	HC-0160	GPA 2286-14	GC/FID
Heptanes (C7)	HC-0160	GPA 2286-14	GC/FID
Octanes (C8)	HC-0160	GPA 2286-14	GC/FID
Nonanes (C9)	HC-0160	GPA 2286-14	GC/FID
Decanes+ (C10+)	HC-0160	GPA 2286-14	GC/FID

Results relate only to the items tested. Results apply to samples as received.

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C089755	N/A	5426928A; 71159400-G-23Q4	Nov-02-2023 07:26

$\delta^{13}C_{CH4}$	$\delta^{13}C_{C2}$	$\delta^{13}C_{C3}$	$\delta^{13}C_{iC4}$	$\delta^{13}C_{nC4}$	$\delta^{13}C_{CO2}$
-61.25	-48.38	-37.48	-30.11	-36.46	-

Comments: THIS IS A VERY SHALLOW INCIPINET THMOGENIC GAS.

Analyst Karlis Muehlenbachs, U of A.
780-492-2827

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C089755	N/A	5426946B; 5355921-G-23Q4	Nov-01-2023 17:18

$\delta^{13}C_{CH4}$	$\delta^{13}C_{C2}$	$\delta^{13}C_{C3}$	$\delta^{13}C_{iC4}$	$\delta^{13}C_{nC4}$	$\delta^{13}C_{CO2}$
-59.45	-49.86	-31.21	-	-	-

Comments: THIS IS A VERY SHALLOW INCIPINET THMOGENIC GAS.

Analyst Karlis Muehlenbachs, U of A.
780-492-2827

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C089755	N/A	5426947A; 8195920400-G-23W4	Oct-31-2023 18:04

$\delta^{13}C_{CH4}$	$\delta^{13}C_{C2}$	$\delta^{13}C_{C3}$	$\delta^{13}C_{iC4}$	$\delta^{13}C_{nC4}$	$\delta^{13}C_{CO2}$
-61.7	-49.15	-34.46	-28.79	-32.5	-

Comments: THIS IS A VERY SHALLOW INCIPINET THMOGENIC GAS.

Analyst Karlis Muehlenbachs, U of A.
780-492-2827

AGAT® Laboratories

Isotope Analysis Report

Operator	Results to	Work Order #	Well Location	Sample Point	Date Sampled
STANTEC CONSULTING	REED LANNAN	23C089755	N/A	5426948A; QC-2023-10-G	Oct-31-2023 17:41

$\delta^{13}C_{CH4}$	$\delta^{13}C_{C2}$	$\delta^{13}C_{C3}$	$\delta^{13}C_{iC4}$	$\delta^{13}C_{nC4}$	$\delta^{13}C_{CO2}$
-64.96	-51.61	-35.75	-	-	-

Comments: THIS IS A VERY SHALLOW INCIPINET THMOGENIC GAS.

Analyst Karlis Muehlenbachs, U of A.
780-492-2827

APPENDIX B: 2023 SEISMICITY LOCATABLE EVENTS

As this is a cumulative dataset, our third party microseismic contractor updates and reviews the full dataset on a regular basis. This quality control can result in small updates to the classification of triggers updating the historical numbers in the updated reports.

The following catalogue contains events located within 10km radii from the surface location of the IWs (AOR).

Event Number	Date (DD/MM/YYYY)	Time (HR:MIN:SEC)	TVDss (m)	Northing (m)	Easting (m)	Moment Magnitude	Distance to Deep Geophone (m)	Formation
1	05/07/2016	23:21:56.313	3200	6000406	371492	-1.251	3533.867312	Precambrian
2	29/10/2016	02:36:17.750	1671	5996420	367929	-0.991	3211.037075	Precambrian
3	29/12/2016	09:26:57.938	1938	5997314	372578	-1.33	2076.209512	Precambrian
4	08/01/2017	00:01:06.937	2753	5995322	370696	-0.665	2989.492602	Precambrian
5	09/01/2017	14:57:57.415	3121	5995558	370794	-0.664	3045.512518	Precambrian
6	09/01/2017	18:21:41.280	3038	5995488	370960	-0.641	3045.034295	Precambrian
7	14/01/2017	06:17:30.748	3108	5995470	370777	-1.024	3100.207151	Precambrian
8	14/01/2017	20:01:45.820	2853	5995307	370676	-0.703	3061.874396	Precambrian
9	16/01/2017	14:13:57.247	3071	5995482	370970	-0.564	3072.288245	Precambrian
10	17/01/2017	15:46:12.288	3003	5995456	370832	-0.978	3040.595037	Precambrian
11	17/01/2017	17:01:08.644	2601	5998196	369001	-0.781	2438.359575	Precambrian
12	17/01/2017	21:00:46.998	2953	5995410	370716	-0.361	3043.004637	Precambrian
13	22/01/2017	04:22:30.347	3047	5995506	370834	-0.428	3032.876209	Precambrian
14	24/01/2017	16:26:59.046	3113	5995520	370937	-1.031	3071.393817	Precambrian
15	25/01/2017	22:36:47.015	3100	5995606	370925	-1.084	3000.115608	Precambrian
16	27/01/2017	19:07:11.182	3268	5995545	370798	-1.047	3158.929746	Precambrian
17	28/01/2017	01:28:50.321	2897	5995384	370968	-0.522	3032.797576	Precambrian
18	28/01/2017	23:02:49.274	1578	5997702	370766	-1.287	584.3588096	Precambrian
19	29/01/2017	00:18:30.222	1607	5997738	370792	-1.684	612.2667543	Precambrian
20	29/01/2017	13:34:18.152	3088	5995548	370885	-1.108	3031.64425	Precambrian
21	30/01/2017	13:18:09.642	2980	5995444	370926	-0.56	3037.653571	Precambrian
22	05/02/2017	00:24:26.082	2992	5995489	370810	0.086	3008.272039	Precambrian
23	05/02/2017	01:01:46.360	2999	5995480	370786	-0.202	3019.487973	Precambrian
24	05/02/2017	01:02:08.504	2863	5995376	370842	-0.46	3012.529797	Precambrian
25	05/02/2017	01:04:21.723	2889	5995359	370762	-0.395	3041.361895	Precambrian
26	05/02/2017	23:32:27.233	3079	5995523	370880	-0.186	3043.414901	Precambrian
27	07/02/2017	01:29:53.299	3020	5995498	370890	0.103	3022.1643	Precambrian
28	07/02/2017	13:49:45.714	2850	5997346	368787	-1.118	2749.257787	Precambrian
29	12/02/2017	00:33:14.668	3005	5995500	370968	-0.542	3014.563109	Precambrian
30	12/02/2017	17:13:42.214	2869	5995398	370985	0.066	3005.52093	Precambrian
31	12/02/2017	17:15:35.231	2987	5995483	370983	-0.799	3016.26964	Precambrian
32	13/02/2017	08:04:57.099	2989	5995488	370963	-0.936	3012.559334	Precambrian
33	13/02/2017	08:23:39.542	2950	5995444	370842	-0.91	3015.174651	Precambrian
34	13/02/2017	18:52:53.296	2980	5995442	371004	-0.625	3043.967296	Precambrian
35	14/02/2017	01:14:58.637	2946	5995456	370981	-0.476	3009.637888	Precambrian
36	14/02/2017	07:01:27.424	2956	5995412	370974	-0.718	3049.105	Precambrian
37	14/02/2017	07:43:12.280	3169	5995614	370906	-1.029	3042.477086	Precambrian
38	14/02/2017	21:34:33.729	3031	5995492	370978	-0.305	3038.51568	Precambrian
39	15/02/2017	06:29:05.972	2968	5995419	370764	-1.16	3045.224474	Precambrian
40	15/02/2017	17:44:52.166	2987	5995458	371003	-0.853	3036.427792	Precambrian
41	16/02/2017	11:30:38.618	2878	5995368	371000	-0.683	3035.579724	Precambrian

42	17/02/2017	11:33:07.190	2961	5995440	370965	-0.831	3030.466178	Precambrian
43	18/02/2017	19:36:08.351	2968	5995390	370964	-0.064	3072.991393	Precambrian
44	18/02/2017	19:42:37.542	3009	5995440	370982	-0.388	3062.912238	Precambrian
45	20/02/2017	13:15:39.363	3014	5995365	370958	-0.688	3121.340728	Precambrian
46	20/02/2017	13:15:43.422	3013	5995450	370978	-0.792	3057.788733	Precambrian
47	21/02/2017	10:17:11.832	2919	5995388	371011	-0.689	3046.544045	Precambrian
48	21/02/2017	21:18:10.621	3014	5995458	370963	-0.854	3051.519906	Precambrian
49	22/02/2017	19:30:15.580	2940	5995445	370960	0.082	3012.769865	Precambrian
50	05/03/2017	14:22:54.430	2992	5995499	370989	-0.703	3008.057163	Precambrian
51	07/03/2017	01:44:41.470	2941	5995454	370974	-1.129	3007.452626	Precambrian
52	07/03/2017	08:19:57.502	3200	5994843	372584	-0.928	4063.131022	Precambrian
53	11/03/2017	08:54:00.461	3177	5995527	371085	-1.169	3121.972719	Precambrian
54	18/03/2017	17:54:29.926	3148	5995660	371069	-0.399	3006.799943	Precambrian
55	22/03/2017	08:31:44.408	2648	5999780	361029	-0.48	10096.43519	Precambrian
56	23/03/2017	03:38:19.420	1504	5994748	370848	-1.115	3034.338863	Precambrian
57	24/03/2017	16:27:12.379	2605	5997779	371601	-1.547	1808.826199	Precambrian
58	28/03/2017	10:22:50.181	3017	5995470	370918	-0.457	3042.147126	Precambrian
59	30/03/2017	21:16:16.576	3042	5995486	370912	-0.945	3046.704084	Precambrian
60	06/04/2017	15:58:04.147	1552	5998070	365907	-0.468	4913.671334	Precambrian
61	11/04/2017	01:35:50.911	2915	5995475	371042	-0.975	2979.942982	Precambrian
62	15/04/2017	12:45:33.366	2869	5995436	371327	-0.235	3019.182932	Precambrian
63	15/04/2017	18:05:51.376	2594	5997955	369672	-1.398	1956.172226	Precambrian
64	17/04/2017	07:35:19.262	3045	5995475	371002	-0.476	3062.130595	Precambrian
65	17/04/2017	18:24:44.099	2953	5995398	370883	0.102	3053.388239	Precambrian
66	18/04/2017	00:14:46.390	3181	5995612	370911	-0.199	3052.670801	Precambrian
67	18/04/2017	03:32:06.482	3009	5995476	370929	-0.521	3032.884881	Precambrian
68	18/04/2017	12:39:32.960	3130	5995576	370900	-0.59	3041.383017	Precambrian
69	02/05/2017	23:05:52.007	2995	6004058	360815	-0.376	11966.29726	Precambrian
70	07/05/2017	00:32:49.780	2888	5995364	371391	-0.926	3098.094611	Precambrian
71	07/05/2017	18:00:15.382	2164	5999939	370197	-1.03	2558.560294	Precambrian
72	19/05/2017	08:08:40.242	2914	5996896	376547	-0.381	6138.187255	Precambrian
73	10/06/2017	13:12:04.805	2896	5998512	365385	-0.104	5770.087734	Precambrian
74	12/06/2017	00:06:02.081	3155	5995408	371049	-1.057	3189.177809	Precambrian
75	20/06/2017	11:55:33.093	2992	5988900	384624	0.197	16547.71768	Precambrian
76	21/06/2017	02:01:16.768	2441	5997833	368821	-0.894	2434.930927	Precambrian
77	29/06/2017	01:42:45.324	2616	5999699	370610	-1.193	2549.442186	Precambrian
78	02/07/2017	22:19:02.253	1941	5997919	370872	-1.119	967.7676262	Precambrian
79	04/07/2017	22:42:12.375	3096	5995310	370889	-1.007	3213.194158	Precambrian
80	05/07/2017	04:19:55.280	2631	5997476	369784	-1.217	1932.151365	Precambrian
81	06/07/2017	15:35:45.649	2501	5996886	367136	-0.83	4032.02406	Precambrian
82	13/07/2017	21:44:08.716	1937	5997190	372822	-1.15	2316.783412	Precambrian
83	03/08/2017	00:49:20.366	2501	5997267	368263	-0.234	2968.916661	Precambrian
84	03/08/2017	07:01:02.941	2500	5998960	372477	-0.88	2577.778264	Precambrian
85	06/08/2017	08:12:58.820	2500	5998944	372768	-0.818	2771.239928	Precambrian

86	09/08/2017	16:59:55.099	2812	5996764	370858	-1.144	2063.479474	Precambrian
87	10/08/2017	20:35:57.594	2893	5995430	370873	0.106	2990.156206	Precambrian
88	19/08/2017	00:45:19.254	1702	5997405	371276	-1.54	927.0898653	Precambrian
89	28/08/2017	16:21:14.999	2527	5997804	367059	-0.455	4022.499111	Precambrian
90	31/08/2017	21:05:18.123	2750	5990030	384518	0.98	15852.33872	Precambrian
91	25/09/2017	02:54:21.499	2996	5996942	368611	-1.111	3055.075943	Precambrian
92	25/09/2017	13:39:56.849	2500	5998006	376660	-0.378	6077.672273	Precambrian
93	26/09/2017	20:29:04.009	2686	6001652	360891	-0.197	10766.73274	Precambrian
94	27/09/2017	09:03:53.406	2704	5988266	380218	0.01	13482.14247	Precambrian
95	30/09/2017	19:41:14.994	1897	5997466	366935	-0.32	3956.581562	Precambrian
96	01/10/2017	11:58:18.679	2292	5997783	370114	-1.31	1457.728678	Precambrian
97	14/10/2017	13:16:04.053	1970	5989368	381237	-0.076	13431.77681	Precambrian
98	23/10/2017	02:20:33.885	2581	5995986	368814	-1.14	3072.973429	Precambrian
99	25/10/2017	20:59:14.788	1800	5996710	376552	-0.418	5920.161128	Precambrian
100	25/10/2017	21:54:48.789	1976	5996438	376637	-0.296	6081.531023	Precambrian
101	25/10/2017	21:57:08.872	2394	5997216	376758	-0.369	6163.946458	Precambrian
102	25/10/2017	22:00:10.500	1997	5997138	376706	-0.255	6042.293308	Precambrian
103	25/10/2017	22:23:45.104	1856	5996465	376645	-0.6	6065.333466	Precambrian
104	25/10/2017	22:27:57.972	1824	5995488	376270	-0.644	5993.104092	Precambrian
105	25/10/2017	22:30:37.292	2372	5996238	376658	-0.769	6222.989437	Precambrian
106	25/10/2017	22:55:59.680	2159	5996882	376913	-0.252	6303.204085	Precambrian
107	26/10/2017	22:24:59.625	2185	5996532	376659	-0.533	6120.574703	Precambrian
108	28/10/2017	18:48:16.318	2233	5995548	368173	-1.055	3621.567083	Precambrian
109	29/10/2017	01:45:53.803	2440	5990466	381678	-0.274	13183.08288	Precambrian
110	29/10/2017	02:43:16.695	2086	5989580	380862	-0.21	13017.07819	Precambrian
111	11/11/2017	19:53:14.178	2555	5994078	377987	-0.596	8234.493936	Precambrian
112	18/11/2017	19:27:40.664	2121	5996426	368847	-0.653	2591.994826	Precambrian
113	21/11/2017	07:30:19.464	2346	5996522	368949	-1.221	2578.674136	Precambrian
114	01/12/2017	06:51:35.505	3000	5995196	371405	-1.058	3298.213525	Precambrian
115	03/12/2017	19:09:18.769	2673	5991606	381707	-0.289	12644.07914	Precambrian
116	07/12/2017	00:56:41.700	2402	5997697	371943	-1.248	1827.438135	Precambrian
117	07/12/2017	17:04:18.643	2094	5999946	370091	-0.893	2559.816677	Precambrian
118	13/12/2017	04:47:44.712	1538	5998169	371309	-1.673	873.2389698	Precambrian
119	25/12/2017	07:25:37.869	2288	5999896	372950	-1.171	3323.509329	Precambrian
120	27/12/2017	14:36:47.009	2446	5997735	370396	-1.315	1500.471132	Precambrian
121	10/01/2018	11:19:25.620	2024	6004886	366962	0.207	8167.344867	Precambrian
122	13/01/2018	10:46:54.746	3038	5996843	368794	-1.024	2985.183897	Precambrian
123	14/01/2018	22:29:28.959	1835	5996946	377446	-0.622	6767.553651	Precambrian
124	15/01/2018	05:17:33.093	1703	5995538	369367	-0.741	2708.087292	Precambrian
125	16/01/2018	07:13:36.154	2635	5999428	372079	-1.375	2690.291415	Precambrian
126	18/01/2018	16:43:04.330	2923	5996767	368762	-1.039	2953.72798	Precambrian
127	29/01/2018	20:23:46.212	2685	5997040	367108	-0.789	4100.144527	Precambrian
128	04/02/2018	12:58:24.097	2147	5998166	370431	-1.619	1276.834139	Precambrian
129	05/02/2018	11:51:26.463	2148	5995940	369143	-1.286	2690.083891	Precambrian

130	10/02/2018	13:23:38.197	3210	5997032	368997	-0.702	2928.612979	Precambrian
131	12/02/2018	13:03:32.162	3728	5985290	374564	-0.086	13295.52196	Precambrian
132	12/02/2018	17:25:56.154	2345	5996743	368923	-1.158	2500.755194	Precambrian
133	13/02/2018	04:07:46.907	2130	5997467	368578	-1.369	2490.167131	Precambrian
134	17/02/2018	00:51:19.769	2924	5989330	384937	0.473	16580.39533	Precambrian
135	17/02/2018	19:45:13.080	4202	5990168	385023	-0.071	16447.67348	Precambrian
136	20/02/2018	19:37:51.258	2215	5998114	370992	-1.646	1294.434308	Precambrian
137	03/03/2018	12:39:06.578	2180	5998828	369859	-1.492	1853.515227	Precambrian
138	08/03/2018	16:07:28.256	2717	5989688	380702	-0.292	12894.47603	Precambrian
139	10/03/2018	13:27:23.042	2037	5997158	366615	-0.79	4330.264479	Precambrian
140	10/03/2018	22:55:14.966	2301	5991908	370735	-0.906	5975.152923	Precambrian
141	10/03/2018	22:55:19.311	3061	5992110	370360	-0.963	6010.263843	Precambrian
142	10/03/2018	22:56:26.440	2293	5991908	370452	-0.83	5982.130672	Precambrian
143	10/03/2018	23:34:38.504	2426	5991956	371183	-0.89	5970.729046	Precambrian
144	10/03/2018	23:35:44.766	3143	5992164	371397	-1.043	6006.071227	Precambrian
145	11/03/2018	12:30:14.806	1503	5991956	371952	-0.583	5922.364847	Precambrian
146	11/03/2018	13:51:50.275	1508	5991964	371908	-0.926	5906.407939	Precambrian
147	11/03/2018	15:03:36.385	1520	5991970	371906	-0.783	5901.214961	Precambrian
148	11/03/2018	15:04:52.968	1846	5991830	370908	-0.775	5970.905822	Precambrian
149	11/03/2018	21:04:33.469	2318	5997734	370808	-1.283	1323.454094	Precambrian
150	12/03/2018	00:10:13.923	1625	5991860	370786	-0.659	5912.178686	Precambrian
151	12/03/2018	05:13:39.660	1936	5991885	370756	-0.613	5928.71008	Precambrian
152	12/03/2018	22:15:41.902	1903	5991832	370444	-0.793	5985.211517	Precambrian
153	14/03/2018	20:45:22.402	2400	5988684	384570	0.136	16558.54051	Precambrian
154	19/03/2018	01:10:58.173	3403	5991882	370630	-0.849	6333.984454	Precambrian
155	30/03/2018	10:25:21.327	2345	5997494	370109	-1.454	1526.347503	Precambrian
156	07/04/2018	01:07:57.856	2978	5996588	368857	-0.481	2990.903071	Precambrian
157	07/04/2018	15:30:20.286	2972	5996743	368786	-1.147	2977.732899	Precambrian
158	10/04/2018	16:31:48.211	1726	5997793	370183	-1.566	944.0176579	Precambrian
159	10/04/2018	22:25:22.500	1581	6000082	369660	-0.889	2661.729411	Precambrian
160	12/04/2018	11:13:08.950	2386	5997819	369534	-1.244	1867.747011	Precambrian
161	12/04/2018	14:01:35.963	1931	5998295	371970	-1.219	1614.777712	Precambrian
162	13/04/2018	09:22:15.371	1863	5998306	372060	-1.632	1649.210677	Precambrian
163	19/04/2018	11:27:05.042	1621	5991176	384948	0.045	15628.66734	Precambrian
164	27/04/2018	11:39:56.889	2705	5990574	372606	-0.799	7589.275988	Precambrian
165	01/05/2018	13:13:02.581	2989	5996366	367585	-1.062	4006.700895	Precambrian
166	01/05/2018	19:21:58.241	2459	5997403	367008	-0.74	4057.947503	Precambrian
167	02/05/2018	04:32:32.814	3156	5995374	368517	-1.105	3920.722941	Precambrian
168	19/05/2018	07:39:00.553	2186	5997150	367403	-1.068	3626.81493	Precambrian
169	26/05/2018	15:34:54.414	2588	5999870	370738	-0.664	2661.360092	Precambrian
170	26/05/2018	16:07:34.447	2479	5999960	370659	-1.104	2674.26803	Precambrian
171	26/05/2018	23:51:46.189	2469	5999954	370650	-0.773	2664.155299	Precambrian
172	01/06/2018	16:54:48.482	2408	5999972	370612	-0.148	2648.176161	Precambrian
173	01/06/2018	17:09:36.250	2729	5999767	370747	-1.074	2668.868445	Precambrian

174	01/06/2018	17:21:00.051	2643	5999853	370600	-0.968	2686.806331	Precambrian
175	01/06/2018	17:45:57.754	2541	5999906	370567	-1.141	2670.746034	Precambrian
176	01/06/2018	21:36:50.954	2160	5997857	366425	-0.922	4507.512802	Precambrian
177	02/06/2018	00:47:52.738	2584	5999867	370795	-0.995	2656.322582	Precambrian
178	02/06/2018	02:21:47.414	2409	5999928	370673	-1.182	2608.554262	Precambrian
179	03/06/2018	23:47:48.079	1508	6000110	370835	-1.14	2427.04859	Precambrian
180	09/06/2018	10:15:11.205	2095	5997678	366871	-0.289	4059.105988	Precambrian
181	10/06/2018	09:36:54.536	1785	5997138	365963	-0.877	4915.93195	Precambrian
182	10/06/2018	15:18:44.831	1521	5997056	366431	-0.271	4431.316082	Precambrian
183	10/06/2018	17:09:19.916	2445	5998040	366517	-1.118	4510.812253	Precambrian
184	12/06/2018	10:27:08.795	2343	5997516	371885	-1.104	1758.678157	Precambrian
185	14/06/2018	03:07:38.180	1507	5999081	373405	-1.055	2994.520472	Precambrian
186	28/06/2018	17:20:07.733	2260	6000004	370651	-1.12	2597.8888	Precambrian
187	28/06/2018	21:42:01.196	1528	6000168	370575	-1.259	2495.548288	Precambrian
188	28/06/2018	23:49:39.077	2789	5999625	370582	-1.204	2610.743836	Precambrian
189	30/06/2018	05:47:47.992	2989	5999542	370700	-0.862	2689.811789	Precambrian
190	30/06/2018	06:39:36.583	3085	5999538	370563	-1.045	2766.373608	Precambrian
191	03/07/2018	14:39:18.750	2537	5999883	370712	-0.426	2642.209639	Precambrian
192	03/07/2018	14:43:46.962	2403	5999924	370514	-0.775	2613.178926	Precambrian
193	03/07/2018	15:19:02.588	2753	5999714	370573	-0.614	2652.437773	Precambrian
194	03/07/2018	17:22:16.705	2286	6000051	370639	-1.117	2652.138514	Precambrian
195	03/07/2018	18:46:41.975	2908	5999654	370578	-0.596	2714.586513	Precambrian
196	03/07/2018	18:47:00.041	1545	6000340	370576	-1.218	2666.665187	Precambrian
197	04/07/2018	05:18:41.968	2721	5999670	370378	-1.11	2621.047412	Precambrian
198	04/07/2018	14:00:16.178	2422	5999894	370741	-0.757	2585.370963	Precambrian
199	05/07/2018	20:02:11.039	2042	5989752	382587	-0.125	14294.74361	Precambrian
200	12/07/2018	20:36:56.509	2193	5997724	369932	-1.43	1466.593392	Precambrian
201	13/07/2018	01:10:39.516	2354	5997743	370151	-1.255	1496.646591	Precambrian
202	15/07/2018	03:56:11.522	1553	5994444	373372	-0.72	4230.306677	Precambrian
203	15/07/2018	04:09:08.777	1527	5994497	373416	-1.024	4213.19048	Precambrian
204	16/07/2018	22:37:54.367	2231	5997630	368309	-0.872	2763.022602	Precambrian
205	22/07/2018	01:20:01.680	2159	5997904	366439	-0.432	4495.220829	Precambrian
206	23/07/2018	22:39:07.460	2329	5997706	366923	-0.559	4079.184396	Precambrian
207	28/07/2018	09:37:21.475	1626	5991468	374494	-0.68	7316.296502	Precambrian
208	31/07/2018	08:42:40.485	2321	5998729	372764	-0.962	2585.525033	Precambrian
209	05/08/2018	01:15:34.391	2061	5997759	370815	-1.505	1066.948573	Precambrian
210	05/08/2018	15:25:42.719	2442	5997710	371680	-1.416	1705.584902	Precambrian
211	05/08/2018	19:22:58.677	2515	5997646	371548	-1.381	1706.631635	Precambrian
212	06/08/2018	14:48:13.581	2515	5997516	371532	-1.147	1711.475556	Precambrian
213	12/08/2018	11:03:59.415	2137	5997287	370285	-0.893	1323.260238	Precambrian
214	17/08/2018	10:20:09.757	2296	5997339	370406	-1.536	1410.899436	Precambrian
215	22/08/2018	23:55:51.494	2177	5999374	370939	-1.294	2024.409024	Precambrian
216	01/09/2018	12:35:38.611	2098	5998273	366912	-0.649	4055.405156	Precambrian
217	05/09/2018	06:12:30.418	1907	5997792	370796	-1.829	913.8505449	Precambrian

218	09/09/2018	16:59:40.521	1787	5997484	369555	-0.808	1478.930985	Precambrian
219	10/09/2018	13:38:17.716	2520	5999871	370674	-1.16	2623.784309	Precambrian
220	19/09/2018	18:54:39.795	2431	5996657	368951	-1.354	2562.992668	Precambrian
221	20/09/2018	09:18:13.255	2414	5999962	370975	-0.72	2645.130707	Precambrian
222	22/09/2018	00:30:20.022	2489	5985110	374615	0.369	13282.92381	Precambrian
223	06/10/2018	07:27:17.209	1825	5998980	369387	-1.255	2040.708303	Precambrian
224	07/10/2018	22:36:40.307	3155	5996899	368878	-0.664	2996.619485	Precambrian
225	16/10/2018	12:02:37.187	2351	5997677	371940	-1.444	1787.088207	Precambrian
226	20/10/2018	16:31:48.060	2644	5995730	367375	-0.589	4281.600922	Precambrian
227	23/10/2018	14:28:50.302	2096	5991981	386267	0.047	16561.37139	Precambrian
228	07/11/2018	13:22:58.169	1755	6000064	368908	-0.624	3079.213396	Precambrian
229	21/11/2018	12:05:46.481	1596	6001575	369569	-0.163	4067.069891	Precambrian
230	21/11/2018	15:42:45.434	2935	6001190	369593	-0.989	4132.844267	Precambrian
231	23/11/2018	20:50:35.304	1518	5991863	372105	-0.955	6046.222462	Precambrian
232	23/11/2018	22:13:24.809	1906	5991732	370675	-0.762	6076.075778	Precambrian
233	24/11/2018	11:59:06.498	2224	5997801	368846	-1.224	2290.444328	Precambrian
234	27/11/2018	05:22:12.544	2985	5999678	369579	-0.903	3026.398503	Precambrian
235	28/11/2018	12:23:39.155	2218	5998138	371112	-1.496	1329.404746	Precambrian
236	09/12/2018	12:11:06.881	2766	5995778	359924	-0.416	11170.65769	Precambrian
237	09/12/2018	13:07:20.003	1976	5999385	371062	-1.002	1937.610533	Precambrian
238	22/12/2018	07:33:06.259	2535	5999546	367094	-0.848	4382.779632	Precambrian
239	28/12/2018	20:32:22.810	2617	5996840	368995	-1.272	2572.275502	Precambrian
240	04/01/2019	18:43:40.580	2991	5995502	371178	-0.97	3024.329932	Precambrian
241	07/01/2019	14:21:46.851	2109	5998224	376779	-0.861	6123.094863	Precambrian
242	07/01/2019	20:43:53.668	2247	5998289	371007	-1.338	1386.857591	Precambrian
243	29/01/2019	23:41:12.621	2463	5990540	372907	-0.132	7649.023021	Precambrian
244	31/01/2019	12:51:22.919	2838	5990958	373896	-0.268	7687.383691	Precambrian
245	01/02/2019	03:39:03.961	2522	5997513	370680	-0.613	1546.749449	Precambrian
246	05/02/2019	15:50:40.631	1786	5990583	373260	-0.706	7615.033385	Precambrian
247	06/02/2019	07:10:21.746	2252	5997758	367419	-0.689	3586.318544	Precambrian
248	06/02/2019	22:26:49.923	2013	5997706	367356	-0.837	3570.119272	Precambrian
249	07/02/2019	04:13:29.898	2467	5990612	373099	-0.353	7638.221095	Precambrian
250	09/02/2019	15:18:55.412	1585	6000288	369143	-0.464	3085.527141	Precambrian
251	11/02/2019	02:54:51.378	1532	5996768	367474	-0.921	3484.955164	Precambrian
252	16/02/2019	14:03:46.205	2071	5997751	370777	-1.389	1076.172839	Precambrian
253	16/02/2019	23:39:55.428	1673	5990510	373190	-0.58	7650.498458	Precambrian
254	22/02/2019	13:33:52.608	2453	5990828	373576	-0.369	7596.804382	Precambrian
255	22/02/2019	13:39:48.624	2214	5990634	373320	-0.413	7643.514418	Precambrian
256	22/02/2019	20:34:05.731	2394	5990783	373641	0.35	7650.806063	Precambrian
257	22/02/2019	21:37:42.041	2406	5990722	373390	-0.513	7618.824204	Precambrian
258	22/02/2019	21:50:42.011	2404	5990879	373876	0.082	7657.521924	Precambrian
259	22/02/2019	21:51:21.120	2404	5990783	373639	-0.086	7651.892988	Precambrian
260	22/02/2019	21:55:46.792	2207	5990744	373298	-0.163	7532.863197	Precambrian
261	22/02/2019	23:06:47.718	2331	5990732	373417	-0.124	7605.393111	Precambrian

262	23/02/2019	04:30:35.257	2611	5990752	373309	-0.621	7604.626217	Precambrian
263	23/02/2019	06:47:30.056	2212	5990710	373431	-0.465	7610.587324	Precambrian
264	23/02/2019	06:51:08.347	2699	5990786	373453	-0.252	7641.880406	Precambrian
265	23/02/2019	08:19:37.969	2525	5990836	373582	-0.52	7605.898933	Precambrian
266	23/02/2019	08:42:54.944	2430	5990774	373484	-0.791	7608.398235	Precambrian
267	23/02/2019	11:06:06.358	2456	5990728	373199	-0.203	7559.399467	Precambrian
268	23/02/2019	15:00:49.353	2457	5990718	373453	-0.443	7653.906175	Precambrian
269	23/02/2019	18:16:54.353	2460	5990797	373598	-0.795	7634.456074	Precambrian
270	23/02/2019	23:52:56.703	2455	5990720	373371	0.483	7623.407074	Precambrian
271	23/02/2019	23:58:41.236	2444	5990862	373626	-0.916	7582.799089	Precambrian
272	24/02/2019	00:20:43.510	3372	5990836	373104	-0.075	7662.029059	Precambrian
273	24/02/2019	00:26:28.481	3558	5991206	373800	-0.927	7640.498299	Precambrian
274	24/02/2019	01:29:38.379	3200	5991280	374150	-0.869	7612.290106	Precambrian
275	24/02/2019	01:29:48.321	3192	5990971	373527	-0.931	7627.899133	Precambrian
276	24/02/2019	01:30:30.888	3355	5991030	373597	-0.041	7649.992417	Precambrian
277	24/02/2019	01:32:36.760	2363	5990688	373309	-0.773	7615.026349	Precambrian
278	24/02/2019	02:42:23.324	3312	5991000	373618	-0.301	7670.95334	Precambrian
279	24/02/2019	02:48:21.956	3581	5990998	373371	0.833	7671.202945	Precambrian
280	24/02/2019	02:54:07.207	2402	5990804	373610	-0.777	7621.616014	Precambrian
281	24/02/2019	02:57:00.368	2850	5990790	373433	-0.755	7666.391598	Precambrian
282	24/02/2019	03:03:55.496	2454	5990891	373774	-0.387	7615.439771	Precambrian
283	24/02/2019	03:23:56.361	2315	5990564	372880	-0.695	7591.817665	Precambrian
284	24/02/2019	03:50:33.513	3569	5990822	372880	-0.447	7673.56138	Precambrian
285	24/02/2019	04:09:47.937	3013	5990734	372980	-0.782	7614.839792	Precambrian
286	24/02/2019	04:54:50.030	3368	5990840	373315	0.249	7723.904172	Precambrian
287	24/02/2019	05:45:27.907	2928	5990708	372900	-0.537	7594.002782	Precambrian
288	24/02/2019	05:57:06.600	3255	5991212	374002	-0.245	7622.285469	Precambrian
289	24/02/2019	12:09:01.288	2411	5990767	373387	-0.862	7577.301207	Precambrian
290	24/02/2019	12:42:11.961	3200	5991182	373911	-0.624	7593.918739	Precambrian
291	24/02/2019	13:12:21.104	3489	5990880	373110	-0.258	7661.532944	Precambrian
292	24/02/2019	13:59:03.602	2842	5991118	374021	-0.843	7600.109461	Precambrian
293	24/02/2019	14:04:58.157	3396	5991182	373728	-0.31	7580.047859	Precambrian
294	24/02/2019	20:03:49.158	3754	5990911	373012	-0.685	7695.413971	Precambrian
295	25/02/2019	04:04:16.029	2992	5991039	373843	-0.257	7633.324973	Precambrian
296	25/02/2019	04:14:50.446	2142	5990818	373678	-0.181	7590.835444	Precambrian
297	25/02/2019	05:03:46.430	1980	5990830	373748	-0.1	7584.217662	Precambrian
298	25/02/2019	05:05:46.537	3199	5990981	373535	0.01	7623.939668	Precambrian
299	25/02/2019	11:10:47.582	2779	5991130	374066	-0.856	7593.949593	Precambrian
300	25/02/2019	12:19:21.689	2206	5991108	374310	-0.629	7609.684321	Precambrian
301	25/02/2019	19:44:22.660	2880	5991040	373902	-0.66	7627.885013	Precambrian
302	25/02/2019	23:08:45.175	2757	5990777	373331	-0.416	7621.464257	Precambrian
303	26/02/2019	04:24:44.265	2458	5990832	373730	-0.154	7652.212821	Precambrian
304	26/02/2019	07:23:53.463	3200	5990906	373497	0.031	7677.239476	Precambrian
305	26/02/2019	09:21:08.140	3186	5990793	373165	-0.31	7664.202193	Precambrian

306	26/02/2019	21:07:29.581	2266	5991288	374715	-0.813	7663.342564	Precambrian
307	26/02/2019	21:31:47.416	3200	5991317	374378	-0.936	7685.059814	Precambrian
308	27/02/2019	15:15:09.948	1878	5991700	375291	-0.036	7590.325699	Precambrian
309	27/02/2019	15:52:54.359	1703	5990530	373251	-0.652	7653.82204	Precambrian
310	28/02/2019	12:31:29.174	3200	6004025	371820	-0.74	6743.062795	Precambrian
311	28/02/2019	21:34:37.072	2508	5991050	374203	-0.859	7665.379765	Precambrian
312	01/03/2019	12:53:41.952	3061	5990878	373587	-0.043	7695.926428	Precambrian
313	02/03/2019	01:06:59.565	3108	5997014	368812	-1.307	2975.59187	Precambrian
314	02/03/2019	22:58:16.931	1973	5990692	373528	-0.333	7627.180471	Precambrian
315	04/03/2019	13:43:42.533	2508	5991498	374968	-0.611	7667.578388	Precambrian
316	05/03/2019	03:21:43.477	1980	5990664	373313	-0.747	7579.354652	Precambrian
317	05/03/2019	03:21:51.278	3198	5990978	373533	-0.786	7625.587042	Precambrian
318	05/03/2019	16:05:35.960	2991	5990784	373380	-0.232	7689.040685	Precambrian
319	08/03/2019	13:34:25.293	2254	5998280	379383	-0.41	8713.747698	Precambrian
320	15/03/2019	16:22:57.359	3174	6000978	368518	-0.915	4511.005602	Precambrian
321	16/03/2019	05:11:41.784	2152	5990560	372957	-0.18	7590.718278	Precambrian
322	16/03/2019	06:00:45.385	2936	5988407	380802	0.169	13832.24317	Precambrian
323	19/03/2019	05:22:51.719	2050	5997812	367408	0.101	3531.805648	Precambrian
324	19/03/2019	05:23:00.922	2460	5997278	367563	-0.463	3562.72409	Precambrian
325	19/03/2019	06:05:29.132	2461	5997984	367515	-0.894	3585.395551	Precambrian
326	19/03/2019	09:20:52.101	2072	5997461	367339	-0.965	3614.131417	Precambrian
327	22/03/2019	11:02:32.912	1904	5994965	382406	-0.396	11988.98081	Precambrian
328	25/03/2019	09:10:32.157	2608	5993842	370109	-0.899	4269.893476	Precambrian
329	28/03/2019	03:22:40.699	2544	5996783	370340	-0.766	1871.974855	Precambrian
330	03/04/2019	00:02:02.696	1984	5996816	376671	-0.378	6046.49272	Precambrian
331	03/04/2019	21:25:23.675	1957	5997274	376712	-0.884	6029.682892	Precambrian
332	13/04/2019	02:12:58.596	1749	5995996	380218	0.086	9629.322901	Precambrian
333	16/04/2019	13:57:19.600	3200	5995474	371936	-0.611	3366.309377	Precambrian
334	21/04/2019	22:04:44.732	2115	5995910	381273	-0.452	10712.0931	Precambrian
335	25/04/2019	14:56:37.352	3987	5990644	369377	-0.487	7826.021287	Precambrian
336	29/04/2019	06:10:37.631	2647	6000467	361210	-0.396	10085.40592	Precambrian
337	29/04/2019	06:14:47.831	3370	6001360	361677	-0.717	10078.66394	Precambrian
338	17/05/2019	02:31:24.710	1715	5998021	364928	-0.686	5900.641858	Precambrian
339	18/05/2019	13:42:09.499	3427	5995638	367832	-0.704	4359.412458	Precambrian
340	29/05/2019	00:24:35.567	2564	5998145	366365	-0.878	4701.001474	Precambrian
341	30/05/2019	14:04:55.152	4200	5993814	376355	-0.716	7535.27826	Precambrian
342	06/06/2019	02:39:43.466	1654	5996714	372577	-0.602	2172.883241	Precambrian
343	10/06/2019	08:13:32.060	2478	5996929	369010	-1.138	2445.344528	Precambrian
344	19/06/2019	06:24:54.660	2492	6000533	366373	-0.455	5426.97862	Precambrian
345	20/06/2019	01:14:20.351	2328	5996187	366533	-0.8	4711.895132	Precambrian
346	18/07/2019	10:36:13.644	2480	6002234	376781	-0.61	7645.548575	Precambrian
347	20/07/2019	20:15:40.129	2757	5989043	383607	-0.215	15598.30574	Precambrian
348	26/07/2019	22:39:20.176	4200	6003686	380273	0.622	11653.57304	Precambrian
349	27/07/2019	14:23:24.250	3790	5993567	365138	-0.415	7551.187849	Precambrian

350	27/07/2019	16:33:30.097	3101	5990804	372483	-0.747	7445.194916	Precambrian
351	02/08/2019	20:39:24.609	4099	5986584	371847	-0.738	11627.62516	Precambrian
352	04/08/2019	12:07:22.360	3278	6000924	375899	-0.649	6448.834367	Precambrian
353	07/08/2019	16:12:46.015	1806	6000076	370000	-1.033	2593.576268	Precambrian
354	29/08/2019	23:31:18.569	2494	5986631	373480	-0.455	11529.3614	Precambrian
355	31/08/2019	23:18:15.973	1890	5986834	374301	-0.364	11494.46938	Precambrian
356	31/08/2019	23:49:29.711	2869	5987456	375534	-0.355	11483.2163	Precambrian
357	02/09/2019	05:13:25.269	2723	5987166	374950	-0.542	11496.60847	Precambrian
358	03/09/2019	13:53:31.781	2529	6000484	379027	-0.473	8828.46836	Precambrian
359	06/09/2019	16:56:12.730	2532	5996939	379458	0.049	8851.504818	Precambrian
360	17/09/2019	01:41:15.484	2322	5997572	376727	-1.021	6097.774117	Precambrian
361	25/09/2019	18:19:29.658	3938	5989310	379720	-0.533	12635.89417	Precambrian
362	07/10/2019	05:03:29.478	2185	5995216	367538	-0.639	4274.942098	Precambrian
363	18/10/2019	21:57:24.306	1861	5997978	376803	-0.732	6091.919939	Precambrian
364	24/10/2019	11:12:49.352	1949	5992924	374432	-0.676	6119.107727	Precambrian
365	24/10/2019	20:29:32.675	2961	5994322	386054	-0.224	15776.65212	Precambrian
366	17/11/2019	17:40:13.586	1658	6000132	372596	-0.973	3078.097792	Precambrian
367	22/11/2019	04:57:03.288	3124	5997028	369896	-1.226	2411.49481	Precambrian
368	23/11/2019	06:50:22.373	3278	5996926	370338	-1.009	2462.936365	Precambrian
369	24/11/2019	02:24:21.264	2494	5989444	372126	-0.511	8536.034795	Precambrian
370	24/11/2019	06:54:11.764	2908	5996628	369852	-1.127	2397.940654	Precambrian
371	11/12/2019	00:55:39.238	2049	5997044	368927	-1.412	2240.228019	Precambrian
372	13/12/2019	18:53:14.453	2791	5990156	381149	0.121	12972.42191	Precambrian
373	14/12/2019	11:34:02.195	3172	5991313	382172	0.148	13261.08711	Precambrian
374	16/12/2019	20:44:13.426	2019	6000128	378752	-0.874	8387.349556	Precambrian
375	17/12/2019	11:14:27.980	2368	5998880	372645	-0.704	2583.63319	Precambrian
376	30/12/2019	19:24:00.926	1520	5993224	373490	-0.929	5292.721706	Precambrian
377	06/01/2020	19:03:20.224	3332	5993793	369968	-1.06	4656.678337	Precambrian
378	07/01/2020	15:49:23.146	2876	5989208	381254	-0.156	13640.39626	Precambrian
379	12/01/2020	08:42:37.520	1587	6003401	373888	-0.956	6487.551953	Precambrian
380	17/01/2020	13:50:37.886	2283	5998020	370887	-1.168	1323.021534	Precambrian
381	17/01/2020	14:23:30.374	2091	5998391	371113	-1.457	1318.940536	Precambrian
382	17/01/2020	15:56:42.403	2248	5998224	370959	-0.912	1356.035508	Precambrian
383	18/01/2020	20:18:45.694	2586	5996956	370353	-1.168	1823.264254	Precambrian
384	19/01/2020	01:36:47.260	2541	5996912	370277	-1.305	1823.252034	Precambrian
385	22/01/2020	06:36:06.091	2600	5996976	370495	-1.472	1799.356234	Precambrian
386	26/01/2020	16:29:46.237	2412	5989191	381409	0.031	13714.66526	Precambrian
387	28/01/2020	09:01:26.767	1878	5986992	373494	-0.131	11119.59104	Precambrian
388	12/02/2020	09:22:58.410	1686	5997534	369419	-0.901	1538.037548	Precambrian
389	12/02/2020	09:57:18.861	1908	5997660	376818	-0.662	6109.410474	Precambrian
390	12/02/2020	18:39:34.950	2186	5998338	371136	-1.178	1380.754873	Precambrian
391	12/02/2020	19:28:14.077	2231	5998320	370966	-1.197	1378.9615	Precambrian
392	16/02/2020	03:01:02.113	2126	5997835	376791	-0.99	6119.49637	Precambrian
393	19/02/2020	16:37:46.324	1894	5997812	370831	-1.945	903.6713	Precambrian

394	19/02/2020	16:58:07.578	1912	5997782	370816	-1.521	918.9287341	Precambrian
395	26/02/2020	11:47:48.744	2434	5998899	372655	-1.019	2634.757913	Precambrian
396	03/03/2020	17:24:29.489	1832	5998056	367217	-1.048	3671.548662	Precambrian
397	08/03/2020	12:28:36.708	2966	5997348	370572	-1.301	2019.912418	Precambrian
398	12/03/2020	19:05:11.296	1828	5998434	364705	-0.5	6168.930544	Precambrian
399	14/03/2020	01:34:47.130	1583	5997501	369446	-1.699	1475.041023	Precambrian
400	19/03/2020	11:07:42.177	4166	5994756	375317	-0.712	6289.375516	Precambrian
401	26/03/2020	21:18:27.084	2848	5997734	385034	-0.359	14376.21366	Precambrian
402	26/03/2020	21:41:21.027	1659	5993272	370054	-0.346	4573.228805	Precambrian
403	28/03/2020	07:43:14.135	2093	5998958	373325	-0.954	3030.121987	Precambrian
404	02/04/2020	10:44:07.172	2365	5999248	384975	-0.116	14342.89105	Precambrian
405	06/04/2020	09:39:33.185	2369	5996875	376757	-0.442	6195.609121	Precambrian
406	07/04/2020	14:15:32.132	2379	5997562	376784	-0.439	6166.22125	Precambrian
407	08/04/2020	12:34:51.353	2609	5995333	372328	-1.098	3285.592357	Precambrian
408	23/04/2020	12:29:01.118	2455	5986549	375632	-0.576	12284.17016	Precambrian
409	24/04/2020	00:04:57.276	1623	5996516	365418	-0.939	5533.137838	Precambrian
410	28/04/2020	11:38:30.726	2103	5993268	370094	-0.572	4656.256962	Precambrian
411	01/05/2020	23:36:28.868	3191	6000896	378202	-0.883	8361.375185	Precambrian
412	03/05/2020	12:05:41.876	2398	5990812	373231	-0.578	7480.887288	Precambrian
413	05/05/2020	04:42:58.490	2142	5996709	369555	-0.798	1967.422898	Precambrian
414	05/05/2020	12:57:21.320	2396	5990974	373625	-0.537	7471.850163	Precambrian
415	07/05/2020	16:20:09.495	1983	6000293	372806	-0.971	3408.185972	Precambrian
416	14/05/2020	12:09:05.647	2352	5986250	372812	0.463	11745.87791	Precambrian
417	18/05/2020	12:41:02.249	2464	5997804	370293	-1.628	1548.385785	Precambrian
418	19/05/2020	21:30:06.874	2214	5997364	376776	-0.269	6132.358275	Precambrian
419	21/05/2020	13:59:17.147	2490	5998123	378662	-0.62	8033.992493	Precambrian
420	23/05/2020	19:28:28.760	1598	6000093	372326	-1.322	2881.765226	Precambrian
421	28/05/2020	10:23:42.632	3741	5999862	370219	-0.356	3516.032636	Precambrian
422	31/05/2020	00:48:39.538	2106	5997448	376612	-0.998	5946.23886	Precambrian
423	31/05/2020	05:39:52.737	3131	5992850	366688	-0.773	6722.065541	Precambrian
424	06/06/2020	01:36:00.807	3944	5988354	370650	-0.288	9837.801759	Precambrian
425	11/06/2020	07:48:21.486	2909	5992925	386194	0.252	16263.30994	Precambrian
426	12/06/2020	10:07:04.861	2488	5998060	366364	-0.597	4670.506835	Precambrian
427	18/06/2020	02:44:28.082	2421	5997106	368273	-0.355	2950.837125	Precambrian
428	19/06/2020	00:57:39.218	1978	6000903	365761	0.366	6012.322797	Precambrian
429	24/06/2020	19:56:40.187	2632	5987956	371053	-0.609	9922.35767	Precambrian
430	25/06/2020	02:11:45.251	2099	6001269	366095	0.691	5967.523243	Precambrian
431	25/06/2020	08:57:38.991	2375	6000872	365768	0.075	6068.013904	Precambrian
432	26/06/2020	00:56:38.747	3993	5995114	367720	-0.618	5022.574585	Precambrian
433	26/06/2020	10:06:36.197	2356	5999828	365227	-0.07	6085.153735	Precambrian
434	26/06/2020	10:26:18.849	2354	6000876	365764	-0.337	6068.644601	Precambrian
435	27/06/2020	00:17:46.671	2078	6001384	366123	-0.07	6010.756536	Precambrian
436	01/07/2020	05:22:18.530	2293	6000226	365462	0.624	6010.790212	Precambrian
437	07/07/2020	08:17:23.625	2680	5996819	370253	-1.058	1990.068677	Precambrian

438	09/07/2020	07:53:36.106	1531	5986269	373102	-0.411	11714.90977	Precambrian
439	09/07/2020	07:54:13.107	1857	5986098	371659	-0.114	11705.6017	Precambrian
440	09/07/2020	12:22:04.399	4200	5986659	373174	-0.495	11780.07403	Precambrian
441	11/07/2020	05:44:00.510	1708	5997750	373881	-0.836	3184.17817	Precambrian
442	12/07/2020	02:01:37.873	1641	6000494	372831	-0.133	3496.59609	Precambrian
443	14/07/2020	14:30:57.094	1694	5997069	369628	-1.203	1502.939499	Precambrian
444	21/07/2020	12:22:56.076	2260	5997222	370453	-1.427	1404.526019	Precambrian
445	23/07/2020	07:34:41.349	2464	5997690	370771	-0.481	1469.915718	Precambrian
446	23/07/2020	10:23:54.387	2376	5997645	370739	-1.021	1384.802765	Precambrian
447	24/07/2020	20:19:09.918	2335	5997288	370732	-1.509	1414.534757	Precambrian
448	29/07/2020	08:32:43.728	1541	6001726	366340	0.442	5990.971562	Precambrian
449	05/08/2020	02:57:18.535	1946	5993708	377968	-0.428	8297.568797	Precambrian
450	05/08/2020	16:08:54.273	1906	5997718	370087	-1.282	1143.511075	Precambrian
451	12/08/2020	03:34:58.106	3200	5999734	377236	-0.843	7110.124248	Precambrian
452	16/08/2020	11:35:45.035	2242	6005266	369881	-0.756	7682.618136	Precambrian
453	18/08/2020	12:31:22.557	2231	5997030	369813	-1.391	1720.639456	Precambrian
454	21/08/2020	17:21:07.845	2579	5997290	378827	-0.683	8215.925607	Precambrian
455	24/08/2020	16:18:52.513	2752	5985952	372824	-0.243	12091.1639	Precambrian
456	08/09/2020	23:53:10.466	2362	5989361	375263	-0.375	9600.479433	Precambrian
457	09/09/2020	16:32:20.902	1907	5994620	366361	-0.774	5483.099873	Precambrian
458	09/09/2020	16:45:08.425	2455	5996616	368365	-0.826	3035.311526	Precambrian
459	13/09/2020	11:08:56.609	2061	5987936	376052	-0.082	11182.28979	Precambrian
460	23/09/2020	02:57:38.958	2208	5998317	369217	-1.421	2059.640934	Precambrian
461	08/10/2020	06:32:52.040	2072	5994750	359425	-0.215	11788.78824	Precambrian
462	19/10/2020	15:43:53.083	2226	5999226	372823	-0.691	2812.7271	Precambrian
463	21/10/2020	00:23:03.763	2315	5998146	371940	-0.966	1805.440406	Precambrian
464	30/10/2020	00:25:03.341	1656	6000527	377616	-0.573	7414.503275	Precambrian
465	03/11/2020	08:10:08.178	1873	5998200	370782	-1.419	991.9980738	Precambrian
466	04/11/2020	15:38:38.081	2104	5997768	370764	-1.641	1109.577081	Precambrian
467	05/11/2020	17:02:57.689	4200	5992517	370449	-0.114	6135.534622	Precambrian
468	05/11/2020	17:03:28.631	4066	5992478	370069	-0.562	6132.4383	Precambrian
469	05/11/2020	17:13:37.793	4117	5992502	370358	-0.285	6111.023281	Precambrian
470	05/11/2020	17:17:10.778	4199	5992535	370321	-0.715	6127.90847	Precambrian
471	05/11/2020	17:23:39.792	3178	5992142	371697	-0.865	6077.155056	Precambrian
472	05/11/2020	20:15:31.757	4196	5992599	370063	-0.76	6096.911197	Precambrian
473	06/11/2020	01:11:47.219	2936	5991965	370781	-0.847	6091.073979	Precambrian
474	06/11/2020	16:17:05.824	3242	5992000	370751	-0.778	6162.836572	Precambrian
475	06/11/2020	16:23:16.181	4146	5992220	370560	-0.582	6358.512048	Precambrian
476	07/11/2020	08:19:04.842	3690	5992294	369937	-0.761	6132.940109	Precambrian
477	09/11/2020	10:37:01.122	2812	6000274	358862	-0.273	12317.26414	Precambrian
478	11/11/2020	12:45:41.551	2965	5999960	370816	-1.246	2969.481709	Precambrian
479	12/11/2020	01:06:03.978	1821	5997790	369995	-1.335	1139.1857	Precambrian
480	12/11/2020	07:06:22.585	1606	5997196	370586	-1.245	839.3485679	Precambrian
481	12/11/2020	07:13:45.606	1587	5997245	370546	-1.728	804.8719267	Precambrian

482	12/11/2020	09:42:40.897	1910	5997863	370121	-1.611	1133.220816	Precambrian
483	13/11/2020	01:41:01.032	1531	5997205	370530	-1.566	795.8584412	Precambrian
484	15/11/2020	23:49:43.295	1668	5998055	371674	-1.703	1164.711852	Precambrian
485	18/11/2020	15:50:06.142	3407	5991734	369954	-0.765	6523.094457	Precambrian
486	23/11/2020	12:49:09.790	3398	5992614	369642	-0.867	5772.802593	Precambrian
487	26/11/2020	16:08:18.453	3118	5992266	373509	-0.567	6474.233568	Precambrian
488	03/12/2020	08:13:48.462	4195	5992292	370476	-0.515	6324.242027	Precambrian
489	03/12/2020	21:14:55.404	1662	6001818	366401	0.071	6020.217655	Precambrian
490	03/12/2020	23:28:21.145	3913	5999088	379151	-0.563	8969.296283	Precambrian
491	13/12/2020	04:06:28.737	4023	6001010	375736	-0.76	6667.581452	Precambrian
492	18/12/2020	03:07:47.506	2387	5994598	383043	-0.307	12737.25937	Precambrian
493	21/12/2020	00:11:46.899	1890	5995892	369414	-1.042	2463.838164	Precambrian
494	21/12/2020	19:50:56.050	1798	6000718	372615	-1.009	3591.376847	Precambrian
495	22/12/2020	08:48:22.750	1882	6002078	366520	-0.504	6143.808775	Precambrian
496	24/12/2020	06:43:01.201	2894	5995994	371374	-0.898	2646.773677	Precambrian
497	31/12/2020	16:34:49.420	1768	5997218	369704	-1.518	1421.787079	Precambrian
498	06/01/2021	05:38:53.323	1613	6000396	372903	-0.933	3458.492293	Precambrian
499	06/01/2021	10:24:50.993	3030	5995186	386419	-0.45	15978.31431	Precambrian
500	08/01/2021	08:57:33.505	1958	5997722	370161	-1.318	1143.755839	Precambrian
501	08/01/2021	11:42:23.778	1720	5996228	370020	-1.086	1838.890932	Precambrian
502	12/01/2021	01:48:40.421	1685	5988134	380056	0.461	13371.95341	Precambrian
503	12/01/2021	02:27:41.795	1734	5987724	379669	-0.183	13412.3577	Precambrian
504	12/01/2021	04:43:06.944	2183	6002452	376327	-0.823	7377.206272	Precambrian
505	13/01/2021	14:23:34.845	1741	5986608	378307	0.205	13458.63116	Precambrian
506	14/01/2021	09:20:57.929	1761	5986779	378736	0.133	13565.83097	Precambrian
507	19/01/2021	06:49:13.766	2843	5987788	379841	-0.641	13585.68983	Precambrian
508	20/01/2021	22:46:17.338	2154	5993302	370082	-1.027	4637.895145	Precambrian
509	21/01/2021	07:37:13.669	1987	5998800	371988	-1.347	1890.984489	Precambrian
510	21/01/2021	19:47:18.525	2372	6002159	376386	-0.454	7272.553143	Precambrian
511	25/01/2021	09:31:56.943	2800	5999784	370743	-1.099	2728.307486	Precambrian
512	28/01/2021	01:04:36.666	2940	6000927	368922	-0.949	4170.568664	Precambrian
513	28/01/2021	23:10:06.247	2250	6000274	372780	-0.755	3466.000787	Precambrian
514	03/02/2021	06:39:39.330	2843	5995938	371255	-0.627	2623.941703	Precambrian
515	06/02/2021	19:35:20.868	1845	5994473	375160	-0.846	5530.871383	Precambrian
516	06/02/2021	19:48:32.695	1711	5994226	364937	-0.801	6853.062496	Precambrian
517	10/02/2021	04:30:43.194	1843	5993010	365853	-0.708	6879.742215	Precambrian
518	17/02/2021	22:07:15.064	2469	5990998	377243	-0.686	9455.535762	Precambrian
519	22/02/2021	00:30:29.191	1792	5997770	369985	-1.507	1124.618006	Precambrian
520	25/02/2021	07:22:43.904	2763	5998189	358654	0.052	12260.24937	Precambrian
521	27/02/2021	12:42:01.826	1832	5996287	368462	-1.125	2858.347036	Precambrian
522	01/03/2021	18:31:28.794	1664	5996671	368263	-1.354	2812.662038	Precambrian
523	04/03/2021	03:57:33.440	1966	5997774	370189	-1.463	1136.171949	Precambrian
524	05/03/2021	17:31:04.771	1637	5996250	367993	-1.025	3222.202684	Precambrian
525	10/03/2021	07:56:41.495	1897	5993530	372772	-0.791	4743.670454	Precambrian

526	18/03/2021	02:42:37.398	2837	5986456	374161	0.05	11922.02677	Precambrian
527	28/03/2021	23:12:51.216	2396	6000676	372418	-1.294	3644.517244	Precambrian
528	01/04/2021	13:29:09.097	2470	5994984	371647	-1.124	3243.27581	Precambrian
529	03/04/2021	17:08:59.456	2319	5996146	368149	-1.156	3346.560308	Precambrian
530	04/04/2021	06:33:02.887	2778	5998450	358592	0.153	12336.02245	Precambrian
531	04/04/2021	19:31:04.140	1923	5997942	366854	-0.461	4037.1228	Precambrian
532	16/04/2021	02:47:50.437	1597	6000066	373285	-1.034	3473.648465	Precambrian
533	16/04/2021	06:11:59.307	2894	5993052	385397	-0.445	15469.10504	Precambrian
534	17/04/2021	17:04:52.943	2133	5995010	371673	-1.169	3088.933495	Precambrian
535	21/04/2021	00:28:37.199	2844	5996280	382576	-0.472	12031.03504	Precambrian
536	24/04/2021	17:44:45.790	3901	6001208	377937	-0.325	8469.836927	Precambrian
537	06/05/2021	14:36:08.472	4145	5990100	370437	-0.576	8269.576917	Precambrian
538	12/05/2021	01:30:08.436	3712	5989958	370569	-0.513	8243.929688	Precambrian
539	13/05/2021	04:30:02.335	1835	6002224	366671	-0.21	6139.26929	Precambrian
540	14/05/2021	08:05:15.357	3426	5992975	370579	-1.034	5351.697777	Precambrian
541	02/06/2021	08:40:14.242	2189	6000056	369542	-1.182	2885.079718	Precambrian
542	06/06/2021	08:41:05.199	2754	5995360	371069	-0.61	2972.631679	Precambrian
543	12/06/2021	04:07:35.305	2688	5999760	361540	-0.455	9606.691452	Precambrian
544	17/06/2021	21:09:18.088	2223	5989704	372137	-0.808	8240.695479	Precambrian
545	18/06/2021	13:15:53.178	1632	6001873	372215	-1.013	4423.320072	Precambrian
546	22/06/2021	23:46:53.646	2091	6003149	372134	-0.673	5684.579219	Precambrian
547	23/06/2021	22:28:43.315	2667	5991786	378361	-0.68	9784.391152	Precambrian
548	26/06/2021	07:32:35.623	2577	5993572	369437	-1.093	4654.061965	Precambrian
549	27/06/2021	01:35:27.117	2938	5992646	385566	-0.458	15760.78739	Precambrian
550	02/07/2021	05:02:14.138	2572	5989108	374564	-0.572	9555.558115	Precambrian
551	05/07/2021	09:32:13.432	2089	5998480	371080	-1.491	1355.82088	Precambrian
552	07/07/2021	13:49:58.097	1453	5997187	370613	-1.755	735.6225516	Precambrian
553	07/07/2021	17:22:29.713	1693	5995618	368652	-0.568	3082.620538	Precambrian
554	13/07/2021	04:41:19.576	4199	5994206	377625	-0.503	8344.462623	Precambrian
555	15/07/2021	16:45:20.324	1571	5992088	372965	-0.443	6086.39756	Precambrian
556	16/07/2021	21:11:20.284	1576	5998484	371269	-1.097	1065.271561	Precambrian
557	20/07/2021	09:12:01.298	2685	6000474	372315	-0.636	3564.074643	Precambrian
558	13/08/2021	03:27:36.514	2998	5995666	371323	-0.895	2933.427371	Precambrian
559	13/08/2021	08:33:52.676	3088	6000162	371896	-1.308	3391.897702	Precambrian
560	18/08/2021	11:52:56.790	2348	5994384	378170	-0.425	8229.784533	Precambrian
561	18/08/2021	23:16:50.768	2617	5993990	370305	-1.349	4111.681512	Precambrian
562	22/08/2021	17:04:01.279	3988	5986882	372472	-0.637	11388.27575	Precambrian
563	30/08/2021	23:24:33.654	3853	6003211	373716	-0.682	6837.432356	Precambrian
564	11/09/2021	18:38:12.607	2946	5992838	375692	-0.927	7209.149699	Precambrian
565	12/09/2021	10:44:21.879	1687	5997196	370062	-1.57	1133.82705	Precambrian
566	12/09/2021	13:35:14.828	3791	5993224	370062	-0.837	5358.277762	Precambrian
567	15/09/2021	21:25:41.329	2302	5997564	370872	-1.222	1322.062547	Precambrian
568	19/09/2021	22:58:04.911	3020	5993088	373197	-1.044	5619.70604	Precambrian
569	20/09/2021	04:12:21.053	3051	5992754	372214	-0.731	5579.936173	Precambrian

570	21/09/2021	06:10:31.819	2188	5996698	377291	-0.904	6702.905655	Precambrian
571	21/09/2021	13:31:43.260	1833	5986714	372638	-0.592	11211.71947	Precambrian
572	26/09/2021	05:45:15.005	2566	5998580	372655	-0.974	2588.562856	Precambrian
573	26/09/2021	14:31:47.882	2703	5991334	378711	-0.259	10337.89908	Precambrian
574	10/10/2021	03:07:05.481	2545	5997766	371740	-1.542	1824.705198	Precambrian
575	13/10/2021	22:16:13.889	2375	5997390	369200	-1.354	2124.930271	Precambrian
576	17/10/2021	08:06:15.895	2644	6003970	378811	-0.547	10299.74323	Precambrian
577	26/10/2021	00:50:02.676	2731	5994202	360699	-0.665	10821.34337	Precambrian
578	17/11/2021	20:56:33.942	1753	5986796	373712	-0.46	11354.42737	Precambrian
579	21/11/2021	01:04:43.810	1909	5999625	372650	-0.585	2810.674912	Precambrian
580	27/11/2021	16:39:50.611	2090	5994654	386241	-0.232	15805.89803	Precambrian
581	28/11/2021	12:36:40.177	3024	5992064	385392	-0.196	15808.04785	Precambrian
582	29/11/2021	17:09:33.437	2788	5995735	369433	-1.13	3006.242129	Precambrian
583	13/12/2021	16:55:15.806	1937	5997538	370790	-1.045	963.2774566	Precambrian
584	15/12/2021	05:31:02.279	4200	6002553	376006	-0.973	7796.601055	Precambrian
585	22/12/2021	09:30:34.316	2898	5990513	384732	-0.184	15828.82087	Precambrian
586	27/12/2021	00:57:58.036	1515	5997647	370224	-1.638	765.1680197	Precambrian
587	13/01/2022	05:31:36.783	2080	6000952	372156	-1.233	3661.103661	Precambrian
588	13/01/2022	09:46:06.528	1657	5991336	375810	-0.089	8170.32586	Precambrian
589	13/01/2022	13:55:00.796	2272	5990032	373524	-0.456	8280.288672	Precambrian
590	16/01/2022	03:18:09.502	1875	5994938	367698	-1.071	4254.650578	Precambrian
591	22/01/2022	04:21:52.332	1842	5998500	373132	-1.292	2615.357524	Precambrian
592	22/01/2022	17:58:32.033	4200	5994688	377110	-0.655	7725.023382	Precambrian
593	22/01/2022	21:28:26.322	2228	5996323	370550	-1.28	1891.039994	Precambrian
594	24/01/2022	17:50:50.128	3495	5990910	374566	0.489	8199.388856	Precambrian
595	24/01/2022	18:07:22.200	2131	5991373	375821	-0.54	8200.304056	Precambrian
596	25/01/2022	00:11:01.474	1836	5990424	374723	0.278	8353.118803	Precambrian
597	25/01/2022	00:11:05.854	2013	5990316	373945	0.415	8133.984046	Precambrian
598	25/01/2022	06:26:42.872	2574	5990560	374182	-0.086	8100.218601	Precambrian
599	25/01/2022	18:24:56.650	2495	5990614	374680	-0.282	8260.544138	Precambrian
600	28/01/2022	13:21:28.892	2584	5990301	374010	-0.393	8263.732756	Precambrian
601	29/01/2022	19:45:47.437	2479	5990701	374893	-0.674	8286.403836	Precambrian
602	03/02/2022	20:59:45.425	2233	5990872	375112	-0.55	8213.872228	Precambrian
603	12/02/2022	00:25:58.046	3826	5990998	373983	-0.644	7982.686724	Precambrian
604	13/02/2022	08:22:33.752	3503	5992248	384861	-0.196	15322.36703	Precambrian
605	26/02/2022	00:35:07.954	1971	5990180	373646	-0.148	8143.139666	Precambrian
606	26/02/2022	00:47:46.960	2015	5993640	377641	-0.609	8058.716934	Precambrian
607	27/02/2022	10:27:13.664	4333	5989191	370857	-0.168	9176.54364	Precambrian
608	10/03/2022	18:01:58.503	1978	5993906	373552	-0.924	4832.304976	Precambrian
609	12/03/2022	21:50:20.304	4354	5991352	374532	0.174	8134.221129	Precambrian
610	14/03/2022	14:26:58.931	1949	5990155	373506	-0.465	8115.620175	Precambrian
611	21/03/2022	08:31:16.785	4200	5992832	372219	-0.777	6035.204744	Precambrian
612	29/03/2022	17:09:59.093	2073	5997886	371111	-1.555	1138.038408	Precambrian
613	29/03/2022	18:07:11.641	1513	5990597	374940	-0.507	8282.150968	Precambrian

614	03/04/2022	20:25:57.194	2547	5997800	370912	-1.434	1559.111214	Precambrian
615	03/04/2022	20:26:38.150	1858	5997292	369591	-0.679	1533.821443	Precambrian
616	04/04/2022	00:30:51.022	1999	5999678	373372	-0.854	3391.189434	Precambrian
617	13/04/2022	15:24:05.196	2501	5990524	374288	-0.504	8163.296708	Precambrian
618	19/04/2022	13:33:04.479	2173	5994860	369517	-1.053	3356.053751	Precambrian
619	24/04/2022	05:23:35.674	2434	5996496	370333	-1.411	1952.585706	Precambrian
620	25/04/2022	15:46:55.284	2539	5989874	373328	-0.688	8410.620259	Precambrian
621	27/04/2022	01:37:01.065	2053	5997845	380090	0.115	9372.805165	Precambrian
622	27/04/2022	08:06:02.778	2470	5990609	374378	-0.305	8122.050624	Precambrian
623	27/04/2022	08:11:56.598	1752	5991101	375440	-0.256	8146.561327	Precambrian
624	27/04/2022	08:12:07.617	1974	5990390	374520	-0.232	8304.441502	Precambrian
625	28/04/2022	01:34:45.079	2071	5990226	373792	-0.286	8165.876033	Precambrian
626	28/04/2022	04:13:14.161	1863	5990190	374105	-0.589	8294.83225	Precambrian
627	28/04/2022	14:20:13.074	2100	5990328	373924	-0.601	8126.243542	Precambrian
628	02/05/2022	06:23:16.143	2527	5991244	375538	-0.863	8196.714362	Precambrian
629	05/05/2022	11:07:07.843	3340	6005261	358238	-0.519	14809.86421	Precambrian
630	10/05/2022	19:05:48.473	2496	5997615	369710	-1.085	1846.233858	Precambrian
631	23/05/2022	22:15:09.840	2405	5997107	377110	-0.727	6518.04758	Precambrian
632	23/05/2022	23:08:59.294	2839	5997362	376831	-0.823	6339.136835	Precambrian
633	24/05/2022	05:28:54.986	2742	5986176	371874	-0.531	11745.02424	Precambrian
634	25/05/2022	20:42:16.604	2891	5996838	376796	-0.897	6373.836334	Precambrian
635	25/05/2022	20:43:12.351	2323	5997932	377105	-0.396	6468.057209	Precambrian
636	25/05/2022	21:33:44.540	1988	5986871	372508	-0.458	11049.1028	Precambrian
637	25/05/2022	23:22:36.928	2579	5997178	377094	-0.586	6535.971703	Precambrian
638	25/05/2022	23:46:23.872	2358	5996702	377023	-0.644	6475.79309	Precambrian
639	28/05/2022	04:29:11.038	2807	5986776	372543	-0.459	11250.61448	Precambrian
640	12/06/2022	09:41:58.291	3639	5990514	373687	-0.619	8224.87539	Precambrian
641	14/06/2022	03:45:18.554	2168	5990561	374022	-0.643	7963.543343	Precambrian
642	16/06/2022	07:15:34.071	2275	5987120	373764	-0.574	11104.46156	Precambrian
643	28/06/2022	03:53:12.639	1774	5997960	365705	-0.791	5136.978417	Precambrian
644	28/06/2022	16:00:21.256	2010	5997231	377252	-0.511	6572.996712	Precambrian
645	06/07/2022	02:09:20.192	2618	5995163	360422	-0.343	10793.91452	Precambrian
646	18/07/2022	03:41:10.104	2123	5989322	381404	-0.179	13602.49641	Precambrian
647	18/07/2022	03:58:05.932	2045	5988894	381062	-0.492	13604.9368	Precambrian
648	21/07/2022	10:35:19.552	2292	5997006	368866	-1.107	2423.571336	Precambrian
649	05/08/2022	03:03:45.947	2024	5992852	370979	-1.014	4997.743761	Precambrian
650	07/08/2022	19:29:00.974	2807	5995884	371354	-0.814	2656.120347	Precambrian
651	15/08/2022	09:04:05.263	2989	5995832	369567	-1.119	3012.809317	Precambrian
652	29/08/2022	21:40:53.336	1997	5990782	374919	0.263	8157.652646	Precambrian
653	30/08/2022	14:59:01.118	2502	5990405	373963	0.724	8136.189608	Precambrian
654	31/08/2022	16:25:52.727	2815	5990754	374741	-0.568	8234.293693	Precambrian
655	04/09/2022	12:02:42.614	4533	5991014	373960	-0.252	8237.958355	Precambrian
656	05/09/2022	19:48:50.147	2496	5990652	374681	-0.084	8228.44932	Precambrian
657	16/10/2022	05:07:14.345	1550	5997236	370178	-1.442	959.3259813	Precambrian

658	24/10/2022	15:25:46.004	6722	5987865	373281	-0.396	11685.55037	Precambrian
659	24/10/2022	21:25:25.103	2542	5991844	376663	-0.698	8472.022742	Precambrian
660	25/10/2022	05:42:35.794	2842	5991992	381149	-0.43	11999.8954	Precambrian
661	27/10/2022	21:28:06.000	2637	5993741	379703	-0.245	9916.507537	Precambrian
662	30/10/2022	17:07:58.871	2805	5987134	378029	-0.306	12973.54785	Precambrian
663	07/11/2022	02:11:50.000	2485	5989850	372245	-0.064	8160.988963	Precambrian
664	07/11/2022	06:18:31.000	4308	5992330	376038	-0.791	8240.087957	Precambrian
665	09/11/2022	02:47:41.839	2928	5999911	372795	-1.072	3539.21608	Precambrian
666	09/11/2022	03:50:45.625	2750	5996102	368874	-1.245	3063.112485	Precambrian
667	11/11/2022	07:29:55.116	1872	5998270	371492	-1.738	1249.797015	Precambrian
668	14/11/2022	09:44:10.479	2277	5997662	371952	-1.366	1740.277615	Precambrian
669	18/11/2022	04:00:10.669	2901	5999588	370625	-1.3	2660.299017	Precambrian
670	24/11/2022	20:06:28.629	1884	5996922	369866	-1.384	1512.747308	Precambrian
671	29/11/2022	15:05:49.910	1599	5999400	371306	-1.572	1845.1555	Precambrian
672	08/12/2022	07:11:50.707	1725	5997706	372164	-1.098	1567.123	Precambrian
673	14/12/2022	08:50:18.111	3132	5997107	369080	-0.857	2801.471374	Precambrian
674	19/12/2022	02:23:20.838	3083	5997070	369027	-0.928	2805.721721	Precambrian
675	20/12/2022	03:37:50.850	3296	6001648	381535	-0.542	11674.68734	Precambrian
676	21/12/2022	16:08:59.486	5261	5991571	380566	-0.504	12330.77819	Precambrian
677	28/12/2022	13:12:12.542	2307	5998619	372962	-1.196	2695.916501	Precambrian
678	04/01/2023	00:59:16.000	2847	6001394	364719	-0.722	7314.440696	Precambrian
679	04/01/2023	19:23:27.969	2481	6000888	364335	-0.672	7323.693362	Precambrian
680	06/01/2023	02:48:23.270	1828	5999135	370891	-1.668	1630.061416	Precambrian
681	06/01/2023	20:27:51.006	2538	5998231	372857	0.094	2635.73883	Precambrian
682	11/01/2023	12:45:10.681	3174	5998559	359468	-0.434	11546.92442	Precambrian
683	12/01/2023	08:08:19.322	1861	6001896	364954	-0.798	7207.679939	Precambrian
684	14/01/2023	15:09:37.198	2473	6001031	364436	-0.865	7296.762873	Precambrian
685	17/01/2023	23:58:02.038	2224	6001757	364784	-0.544	7320.089378	Precambrian
686	20/01/2023	22:26:09.384	2069	5996328	370871	-1.56	1775.359743	Precambrian
687	20/01/2023	22:43:26.261	1982	5996395	370904	-1.422	1671.916654	Precambrian
688	24/01/2023	10:53:07.164	2180	5998267	371952	-1.578	1750.059364	Precambrian
689	02/02/2023	19:07:30.776	2381	6001363	364612	-0.562	7285.216303	Precambrian
690	03/02/2023	17:12:04.392	1982	5993948	377948	-0.371	8170.383831	Precambrian
691	03/02/2023	17:18:02.841	2488	5993496	376600	-0.683	7357.112087	Precambrian
692	04/02/2023	18:06:34.105	3515	6001342	364950	-0.758	7300.57783	Precambrian
693	05/02/2023	01:10:04.402	1775	5994654	366689	-0.977	5180.765146	Precambrian
694	08/02/2023	04:39:10.355	3512	5998970	377128	-0.939	6941.069135	Precambrian
695	10/02/2023	05:15:28.225	2476	5997346	371638	-0.368	1757.21232	Precambrian
696	23/02/2023	06:41:45.083	2590	5997364	371494	-1.433	1788.197779	Precambrian
697	02/03/2023	14:33:53.807	1908	5986635	372876	-0.592	11336.8533	Precambrian
698	06/03/2023	07:46:15.659	2516	5996700	368662	-1	2805.084416	Precambrian
699	07/03/2023	01:33:10.673	2210	6001411	364690	-0.596	7212.770554	Precambrian
700	08/03/2023	08:07:48.800	2923	5988860	381120	-0.382	13766.19364	Precambrian
701	21/03/2023	03:08:05.315	1798	6000281	368981	-1.13	3215.194958	Precambrian

702	22/03/2023	07:34:49.081	1686	5998202	368996	-1.372	1966.463226	Precambrian
703	26/03/2023	07:27:22.031	1884	5986376	374327	-0.513	11937.09737	Precambrian
704	30/03/2023	08:51:44.883	2148	5988805	379799	0.183	12748.35498	Precambrian
705	31/03/2023	21:35:23.879	1953	5991459	374467	-0.921	7345.805795	Precambrian
706	01/04/2023	02:43:34.230	2806	5988084	378940	-0.098	12771.54134	Precambrian
707	02/04/2023	19:12:06.249	2610	5997464	369766	-2.286	1925.48062	Precambrian
708	02/04/2023	22:29:50.443	3098	5996247	380129	-0.057	9700.208219	Precambrian
709	02/04/2023	23:15:00.000	1770	5999894	376785	-2.022	6429.181383	Precambrian
710	03/04/2023	07:15:00.886	3445	5989723	378016	-0.556	11074.47189	Precambrian
711	06/04/2023	11:57:47.994	1644	6002851	371432	-1.043	5194.908024	Precambrian
712	17/04/2023	08:00:42.610	2363	5997450	371837	-0.68	1754.139099	Precambrian
713	17/04/2023	14:30:16.223	2969	5995694	371449	-0.951	2920.217098	Precambrian
714	01/05/2023	06:17:03.793	2531	5991396	373907	-0.749	7237.354681	Precambrian
715	08/05/2023	03:19:01.152	1701	5992060	370399	-0.994	5734.750936	Precambrian
716	08/05/2023	09:18:13.899	1917	5992672	379116	-0.248	9800.336934	Precambrian
717	15/05/2023	12:46:06.245	2289	5989870	378428	-0.61	11050.55524	Precambrian
718	17/05/2023	13:46:56.116	2780	5986329	372265	0.085	11643.67958	Precambrian
719	19/05/2023	13:09:30.661	2671	6004288	377980	-0.135	9878.162717	Precambrian
720	20/05/2023	16:47:49.468	2787	5990723	379104	-0.68	11034.30112	Precambrian
721	22/05/2023	21:10:04.753	1600	5985930	372553	-0.166	11956.52279	Precambrian
722	27/05/2023	20:51:58.878	8829	5989954	373671	-0.594	11416.76978	Precambrian
723	05/06/2023	13:30:21.223	3084	5995525	383446	-0.306	13028.78502	Precambrian
724	15/06/2023	15:00:46.354	4393	5990866	376193	-0.606	9386.351652	Precambrian
725	17/06/2023	20:10:55.357	6385	5990550	376594	-0.693	10703.12213	Precambrian
726	03/07/2023	23:49:38.571	2103	5997253	366298	-1.053	4640.203351	Precambrian
727	05/07/2023	00:25:25.132	3141	5994045	369891	-0.624	4362.792663	Precambrian
728	05/07/2023	00:25:36.541	3132	5994037	369906	-0.34	4362.131866	Precambrian
729	05/07/2023	01:05:04.681	3335	5994187	369771	-1.166	4370.664185	Precambrian
730	11/07/2023	01:21:57.664	3682	5999486	372025	-1.264	3439.472352	Precambrian
731	31/07/2023	04:51:30.802	2136	6000100	373196	-0.759	3567.473843	Precambrian
732	02/08/2023	06:48:02.356	2139	5997850	366399	-0.749	4527.094642	Precambrian
733	05/08/2023	17:40:38.457	3399	6002266	371252	-0.694	5148.096209	Precambrian
734	09/08/2023	21:06:33.185	4415	5998111	371070	-1.098	3452.718908	Precambrian
735	09/08/2023	23:03:11.811	3992	5999129	371688	-0.975	3427.055345	Precambrian
736	14/08/2023	08:17:49.522	2399	5997575	369525	-1.148	1888.792328	Precambrian
737	15/08/2023	03:53:35.917	2847	5995342	383183	-0.15	12769.66948	Precambrian
738	29/08/2023	01:16:42.406	2387	5992008	373812	0.021	6632.000285	Precambrian
739	31/08/2023	01:37:35.191	2950	5997680	380159	-0.27	9583.018976	Precambrian
740	02/09/2023	18:42:45.432	1933	5996839	368697	-1.191	2453.268754	Precambrian
741	02/09/2023	20:47:30.577	2165	5996638	368913	-1.085	2461.181614	Precambrian
742	17/09/2023	14:44:36.236	4465	5992344	380838	0.028	11931.11302	Precambrian
743	20/09/2023	02:46:04.044	2123	5997463	372045	0.057	1718.868366	Precambrian
744	24/09/2023	09:21:35.765	1714	6000794	368090	-0.254	4132.435584	Precambrian
745	26/09/2023	01:12:44.601	2016	5998492	368755	-1.272	2387.844982	Precambrian

746	01/10/2023	01:05:24.120	3373	5989409	375463	-0.358	9848.237332	Precambrian
747	03/10/2023	00:14:03.449	2302	5988608	374088	-0.335	9799.617051	Precambrian
748	07/10/2023	16:23:17.259	2997	5997513	369125	-0.242	2605.904461	Precambrian
749	08/10/2023	10:31:28.928	2341	5997696	370055	-0.914	1528.43569	Precambrian
750	21/10/2023	10:09:07.159	2310	5997494	372819	-1.308	2440.510663	Precambrian
751	31/10/2023	05:46:26.830	2601	5992064	378811	-0.609	9965.595568	Precambrian
752	02/11/2023	15:49:22.366	7063	6002903	379021	0.166	11464.97113	Precambrian
753	08/11/2023	03:30:28.083	4240	5996375	365741	-0.57	6144.782715	Precambrian
754	27/11/2023	21:54:26.921	1977	5997754	366412	-0.503	4474.8488	Precambrian
755	01/12/2023	02:33:31.013	2780	5986148	371277	-0.62	11737.78313	Precambrian
756	01/12/2023	11:41:49.392	2328	5991385	374009	-0.171	7251.571436	Precambrian

APPENDIX C: SCVF AND GAS MIGRATION 2023 DATA

N/A: Not required in 2023 as per 2020 [10] and 2023 [11] MMV Plans