LEGACY GROUNDWATER
Professional Hydrogeologists ♦ Water Resources Specialists

May 17, 2025

Mr. Tim Andruss, General Manager
Calhoun County Groundwater Conservation District
131-A N. Virginia St.
P.O. Box 1395
Port Lavaca, Texas 77979

Re: Initial Monitoring Period (10-Day) Report –
Operating Permit OPWF-20221114-01 and Waiver and Variance WV-20221114-01
Port O'Connor Improvement District, Calhoun County, Texas

Dear Mr. Andruss:

Legacy Groundwater, LLC (LegacyGW), on behalf of Port O'Connor Improvement District (POID), submits this letter to the Calhoun County Groundwater Conservation District (CCGCD or District) to provide data and information including results of the **10-Day Initial Monitoring Period** as required and set forth in the subject operating permit and the associated Waiver and Variance (WV-20221114-01) issued by the District.

INTRODUCTION AND BACKGROUND INFORMATION

Pursuant to the District issuing Operating Permit OPWF-20221114-01, POID contracted with Friedel Drilling Company (Friedel), a licensed water well drilling and pump installing company in Texas, to complete six (6) new wells completed in accordance with requirements, regulations, and guidelines of the Texas Commission on Environmental Quality (TCEQ) for public water system (PWS) wells, as set forth in Title 30 Texas Administrative Code, Chapter 290, Subchapter D, *Rules and Regulations For Public Water Systems*. The new wells create the wellfield authorized by permit OPWF-20221114-01. The six (6) new POID wells were intentionally designed and completed to isolate and produce from zones in the Chicot Aquifer that are deeper than the shallower sand intervals that can produce water that is usable for local well owners, which will limit or eliminate impacts to local private wells. The target production interval is generally within the depth interval that occurs between depths of 260 and 420 feet below ground level (BGL). The wells are intended to produce brackish (or slightly saline) groundwater with total dissolved solids (TDS) concentration of greater than 1,000 milligrams per liter (mg/L). Each of the new wells is designed and permitted to pump at a rate of 300 gallons per minute (gpm) and were spaced as feasibly possible to minimize impacts on the other wells (i.e., interference drawdown). POID continues to operate one existing well (CCGCD ID – GW-00031) as part of its well field. All POID PWS wells are within the POID designated service area. POID has constructed a treatment plant to utilize reserve osmosis (RO) technologies to treat the brackish groundwater so that water provided to its customers complies with all drinking water standards set forth by the TCEQ.

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Round Rock, Texas 78664
TBPG Firm No. 50736
(512) 551-2806
consult@legacygroundwater.com

The Waiver and Variance requires POID to establish a monitoring program that continuously monitors water levels and specific conductance (which is directly related to TDS) in monitoring wells across the extent of the new POID well field. Therefore, POID contracted with Friedel to drill and complete three (3) Dedicated Aquifer Monitoring Wells (monitoring wells) at locations designated by the CCGCD.

The monitoring program required under OPWF-20221114-01 and WV-20221114-01 established specific monitoring periods defined in the Waiver and Variance as follows:

- **Production Period – "**means the 36-month period of time after the Initial Average Water Level Measurement and Initial Average TDS Concentration have been calculated and production of groundwater from any of the Production Wells have begun."
- **Reporting Period – "**means the 3-month periods, ending on the last day of March, June, September, and December of each year during the Production Period."
- **Initial Monitoring Period –** "means the period, with a duration of at least 10 days, of suspended groundwater production by the Permitted Entity before the Production Period."
- **Baseline Monitoring Period –** "means the first 12-month period of the Production Period."

The data and information submitted herewith establish the background conditions, specifically defined in the WV-20221114-01 document as Initial Water Level Measurement, Initial TDS Conversion Factor, and Initial Average TDS Concentration. These parameters have been measured and calculated based on a 10-day period prior to production from the subject well field. This letter provides a description of the work conducted and the results from the 10-Day Initial Monitoring Period. For convenience, additional information is provided in the following attachments:

Attachment 1 – Figures
Attachment 2 – Laboratory Water Quality Reports
Attachment 3 – Water Level and Water Quality Monitoring Charts

MONITORING WELL LOCATIONS, COMPLETION, AND MONITORING REQUIREMENTS

CCGCD designated three monitoring well locations as the West Monitoring Well, the Central Monitoring Well, and the East Monitoring Well. The three (3) monitoring wells are located near three of the newly completed POID PWS wells. Figure 1 in Attachment 1 illustrates the locations of the new POID PWS wells and the three (3) new monitoring wells. Figure 2, Figure 3, and Figure 4 show the locations of the West Monitoring Well, the Central Monitoring Well, and the East Monitoring Well, respectively, and their distances from the nearest POID PWS wells.

The monitoring wells were constructed with 4-inch Schedule 40 PVC. The screen is mill-slotted with a 0.020-inch slot size and designed to screen the approximate middle of the production interval of the target sands of the production wells. The annular space from about 10 feet above the top of the screen to the total depth of the well was filled with 16/30 filter pack. The remaining annular space was sealed with grout from the top

of the filter pack to land surface. Figure 5, Figure 6, and Figure 7 provide diagrams illustrating the construction of each of the monitoring wells and the table below provides a summary of completion details:

	West Monitoring Well	Central Monitoring Well	East Monitoring Well
Latitude	28° 25' 52.43" N	28° 25' 53.82" N	28° 26' 21.66" N
Longitude	96° 27' 42.26" W	96° 27' 20.59" W	96° 26' 55.46" W
Land Surface Elevation	7 ft AMSL	8 ft AMSL	5 ft AMSL
Grout Interval	0 to 255 ft BGL	0 to 270 ft BGL	0 to 260 ft BGL
Screen Interval	255 to 295 ft BGL	270 to 310 ft BGL	260 to 330 ft BGL
Filter-Pack Interval	240 to 323 ft BGL	260 to 340 ft BGL	250 to 360 ft BGL
Total Depth	323 ft BGL	340 ft BGL	360 ft BGL

Note: AMSL is above mean sea level. BGL is below ground level.

After construction and development, each monitoring well was equipped with automatic data recorders (i.e., pressure transducers) capable of continuous measuring and recording of the water level, temperature, and specific conductance within the well. LegacyGW (TGI personnel at the time) installed Aqua TROLL 200® pressure transducers from In-Situ Inc. and programmed the devices to measure and record at 1-minute intervals. Note that the 1-minute interval is much more frequent than the minimum frequency of 4 hours required by CCGCD in the waiver and variance.

INITIAL MONITORING PERIOD (Minimum 10 Days)

Prior to any production (other than testing) from the new POID PWS wells, LegacyGW (i.e., TGI personnel) coordinated with POID, BGE, Inc. (the project engineer), and Friedel to ensure that all pumping from the new POID wells would be suspended for a period of at least 10 days. Prior to the start of the Initial Monitoring Period, LegacyGW used a portable Geotech Geosub 2 Pump and Controller, rented from Geotech, pumped each monitoring well, measured field water-quality parameters including specific conductance, pH, and temperature, and collected samples for laboratory water-quality analyses. LegacyGW collected samples after purging the wells to ensure the samples were representative of aquifer conditions. After each sample was collected, it was preserved on ice and delivered to LCRA Environmental Laboratory Services (LCRA ELS) for analysis. TDS concentrations reported by the laboratory for each well were used to calculate the **Initial TDS Conversion Factor**, which is defined by CCGCD in the waiver and variance document as "…TDS Conversion Factor derived from lab-measured specific conductivity and total dissolved solids from water samples collected from a Dedicated Aquifer Monitoring Well during the Initial Monitoring Period". Attachment 2 provides reports of the laboratory water-quality analyses. Subsequently, the Initial TDS Conversion Factor derived from the laboratory measurements was used to calculate an estimated TDS concentration from the specific conductivity values measured and recorded by the dedicated monitoring devices. The following table provides a summary of the laboratory-determined specific conductivity and TDS concentrations, and the calculated Initial TDS Conversion Factor:

	West Monitoring Well	Central Monitoring Well	East Monitoring Well
Specific Conductance (µS/cm)	2,890	3,080	3,670
Total Dissolved Solids (mg/L)	1,590	1,660	1,970
TDS Conversion Factor (Ratio)	0.55	0.54	0.54

Note: µS/cm is micro-Siemens per centimeter. mg/L is milligram per liter.

Note that due to laboratory error, the water quality report for the West Dedicated Monitoring Well does not report an Alkalinity or bicarbonate concentration. This is of note as the bicarbonate concentration is used to calculate the ionic balance (cation/anion balance) of the water which is related to TDS. This is useful in checking the reliability of the sample analysis. The bicarbonate results for the Central and East Monitoring Wells are similar and LegacyGW believes that the concentration for the West Dedicated Monitoring Well is likely similar. Similarly, if the values from either the Central or East Dedicated Monitoring Well is substituted in for the West Dedicated Monitoring Well, the cation and anion concentrations are nearly balanced.

After a water quality sample was collected from each dedicated monitoring well, the transducers continued to measure and record the water level and specific conductivity within each well to monitor the initial monitoring period. The 10-Day Initial Monitoring Period began on Friday November 22, 2024 and ended on Monday December 2, 2024. Attachment 3 provides charts for each dedicated monitoring well depicting the water level, specific conductivity, and calculated TDS using the TDS conversion factor for the initial monitoring period. The following table provides a summary of the measured water level, specific conductivity, and calculated TDS.

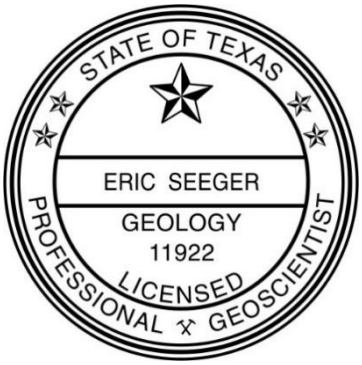
	West Monitoring Well			Central Monitoring Well			East Monitoring Well		
	Min	Max	**Avg**	Min	Max	**Avg**	Min	Max	**Avg**
Specific Conductance (µS/cm)	2,813	2,820	**2,816**	3,059	3,067	**3,062**	3,392	3,404	**3,399**
Total Dissolved Solids (mg/L)	1,547	1,551	**1,549**	1,652	1,656	**1,654**	1,832	1,838	**1,835**
Depth to Water (ft BGL)	16.55	16.65	**16.60**	17.78	17.88	**17.82**	14.94	15.03	**14.97**

Note that there was a malfunction with the transducer in the West Dedicated Monitoring Well for the first few days of the initial monitoring period. It is likely that bubbles formed over the sensor that measures specific conductance. LegacyGW lowered the transducer to a deeper setting to reduce the risk of bubbles forming on the sensor. After the transducer was lowered, the measured water levels and specific conductivity were relatively constant for the remaining initial monitoring period. LegacyGW believes that the period with reliable

readings is representative of background aquifer conditions and that the average of that period is representative of the average of the initial monitoring period.

LegacyGW and POID continue to monitor aquifer conditions within each dedicated monitoring well as POID has begun production from the wellfield for service to its customers. LegacyGW, on behalf of POID, will provide to CCGCD the first **Reporting Period** (i.e., essentially quarterly) report summarizing the aquifer conditions since POID started production January 25, 2025. LegacyGW will assess and compare the first Reporting Period results to the Initial Monitoring Period and provide comments as to POID's effects on the local aquifer, if any.

If you have any questions, please call me or e-mail me at eseeger@legacygroundwater.com.



The seal appearing on this document was authorized by Eric Seeger, P.G. on May 17, 2025.

Sincerely,
LEGACY GROUNDWATER

Eric Seeger, P.G.
Senior Hydrogeologist

Attachments

cc: Mr. Danny McGuire, President, Port O'Connor Improvement District
Mr. Oscar Pena, District Manager, Port O'Connor Improvement District
Mr. Matt Froehlich, P.E., BGE
Mr. Michael Barrette, P.E., BGE

Attachment 1 –

Figures

Explanation

- POCID Production Well
- Dedicated Monitoring Well
- POCID PWS Well 150 ft Sanitary Control Easement

0 500 1,000 ft

Port O'Connor Improvement District

Figure 1 - Production Well and Monitoring Well Location Map

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Explanation

- POCID Production Well
- Dedicated Monitoring Well
- POCID PWS Well 150 ft Sanitary Control Easement

0 50 100 ft

Port O'Connor Improvement District

Figure 2 - West Dedicated Monitoring Well Location Map

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Explanation

- POCID Production Well
- Dedicated Monitoring Well
- POCID PWS Well 150 ft Sanitary Control Easement

0 50 100 ft

Port O'Connor Improvement District

Figure 3 - Central Dedicated Monitoring Well Location Map

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Explanation

- POCID Production Well
- Dedicated Monitoring Well
- POCID PWS Well 150 ft Sanitary Control Easement

0 50 100 ft

Port O'Connor Improvement District

Figure 4 - East Dedicated Monitoring Well Location Map

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Figure 5 – Well Diagram
West Dedicated Monitoring Well
(Near PWS Well No. 3)

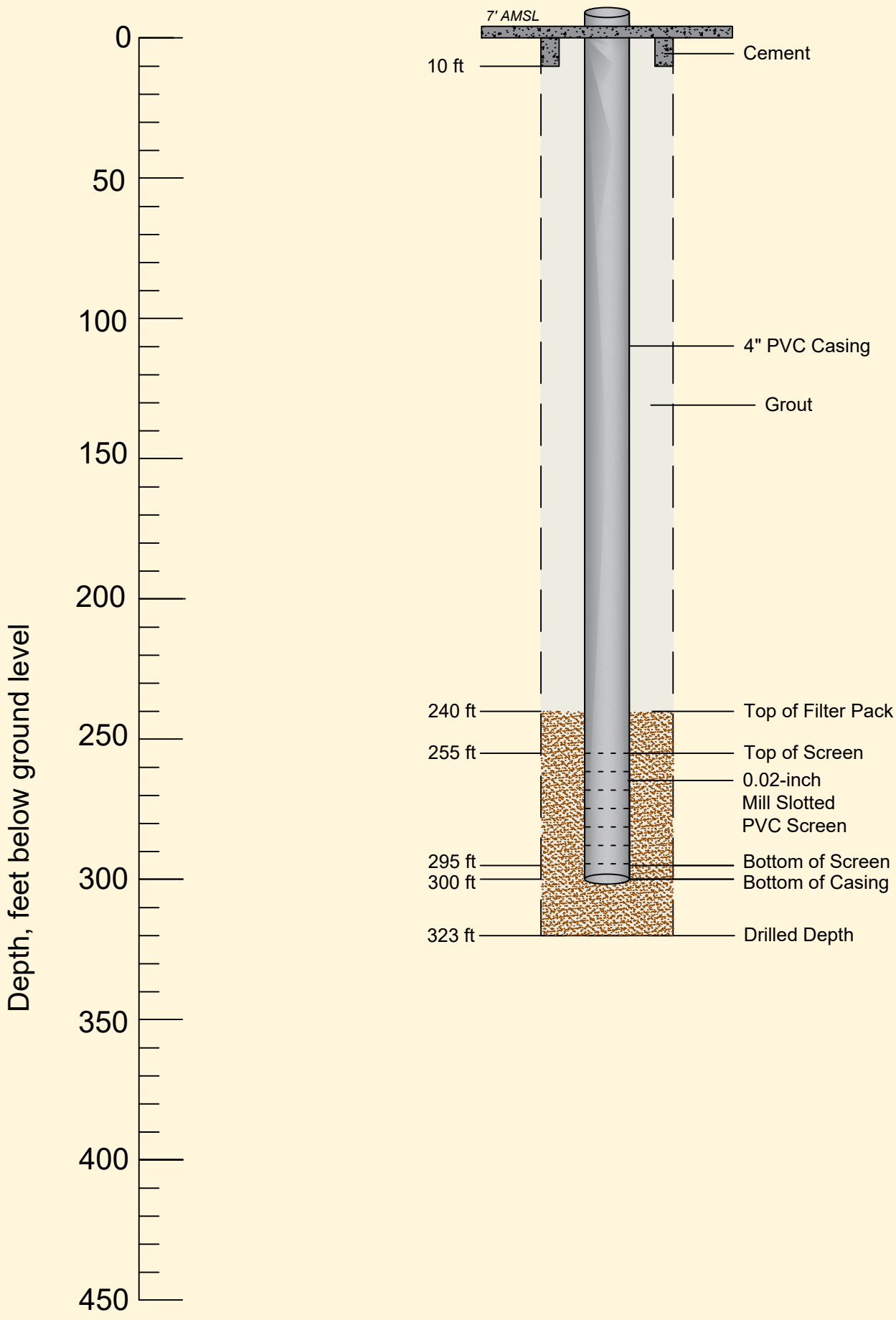

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Figure 6 – Well Diagram
Central Dedicated Monitoring Well
(Near PWS Well No. 4)

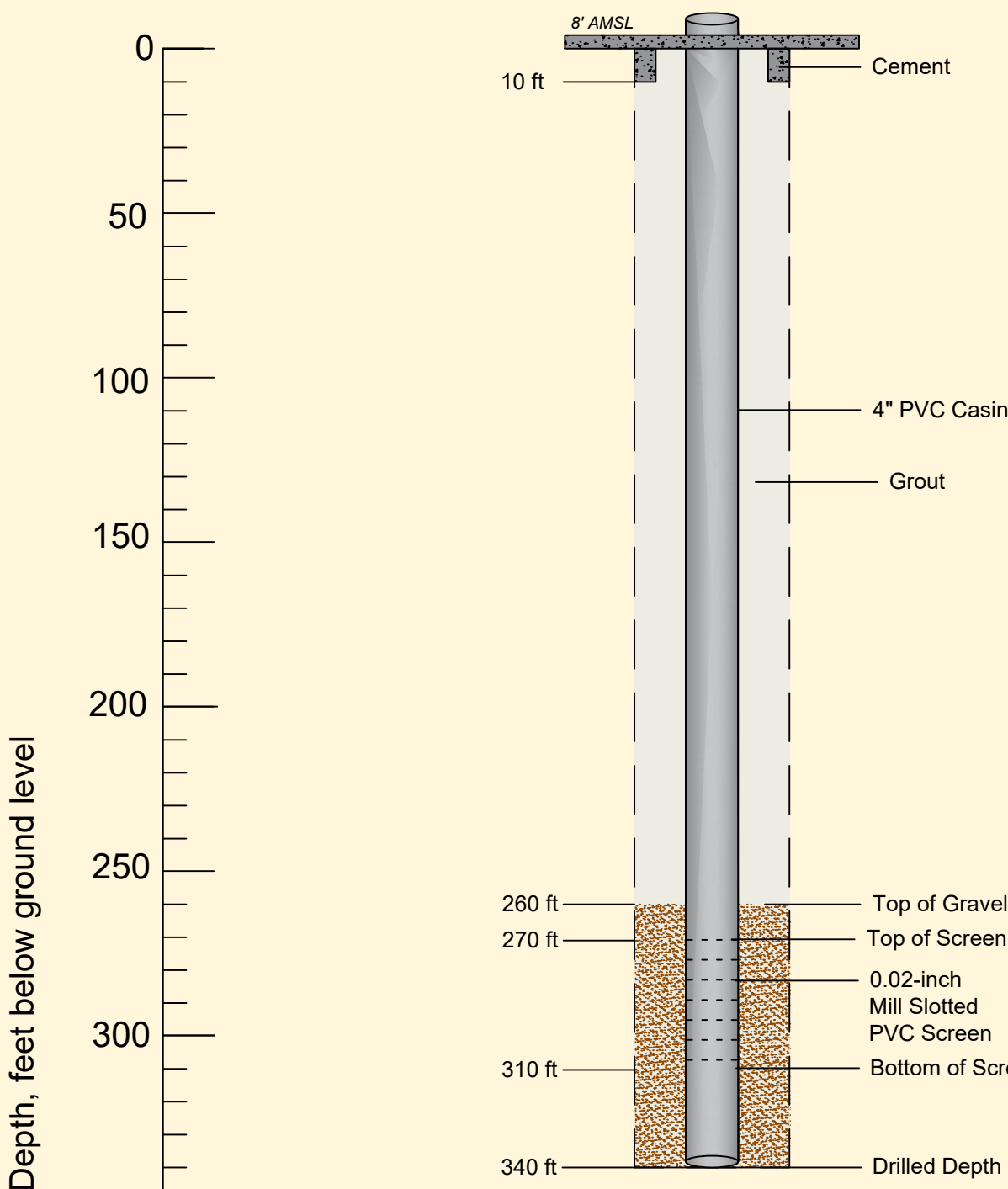

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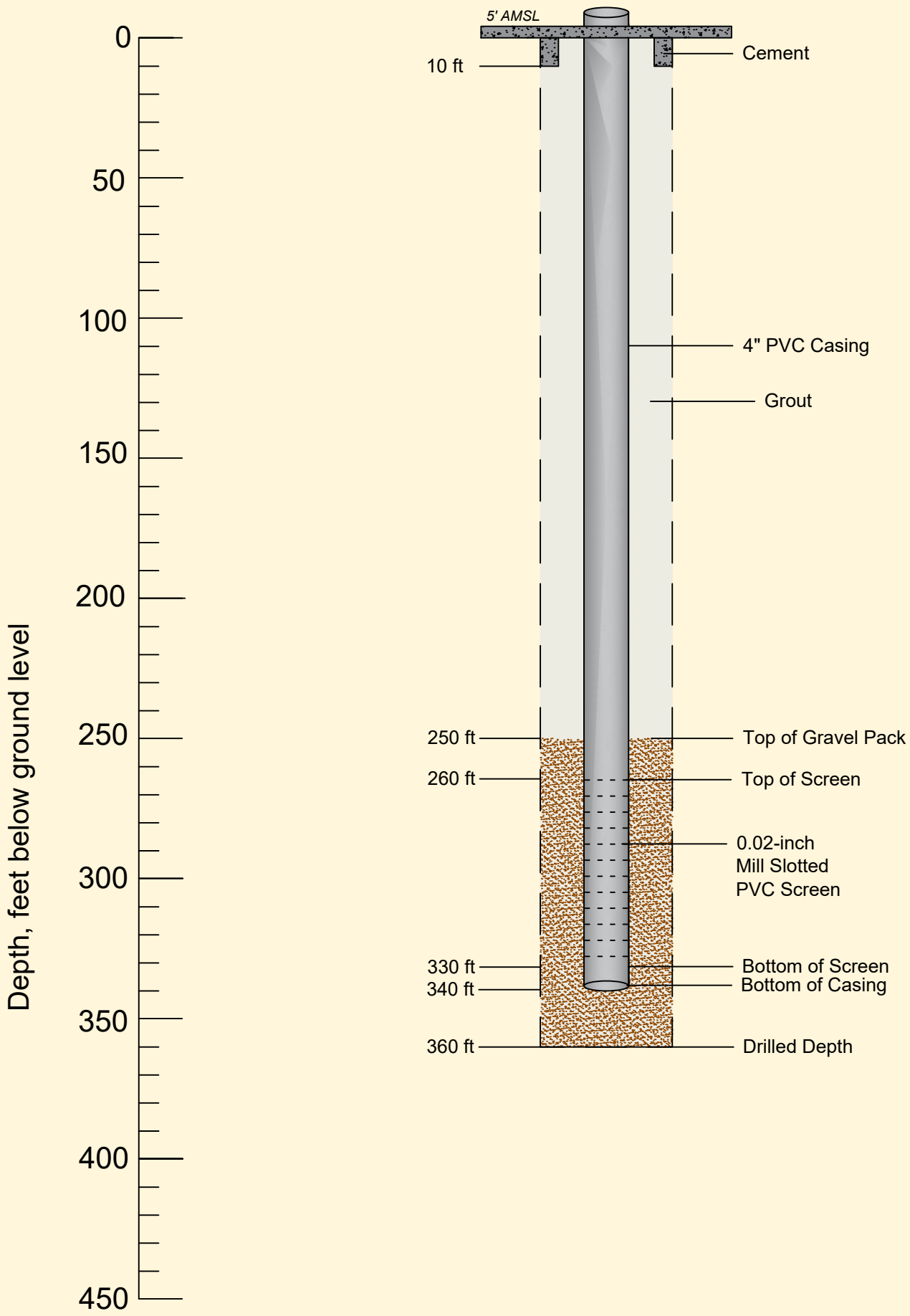
Figure 7 – Well Diagram
East Dedicated Monitoring Well
(Near PWS No. 7)



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Attachment 2 –

Laboratory Water-Quality Reports

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

February 28, 2025

ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768
ESeeger@tgi-water.com

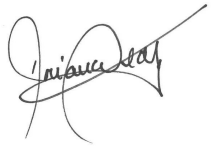
RE: Final Analytical Report Q2449497

Attn: ERIC SEEGER

Enclosed are the analytical results for sample(s) received by LCRA Environmental Laboratory Services. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This final report provides results related only to the sample(s) as received for the above referenced work order.

Thank you for selecting ELS for your analytical needs. If you have any questions regarding this report, please contact us at (512) 730-6022 or environmental.lab@lcra.org. We look forward to assisting you again.

Authorized for release by:



Ariana Dean
Account Manager
ariana.dean@lcra.org

Enclosures:

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder: Q2449497
Workorder Description: THGBGE-POID_11192024
Client: THORNHILL GROUP, INC.
Profile: BGE-POID

Sampled By: ERIC SEAGER

Report To: ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported
Q2449497001	WELL 7	DW	245.1Hg	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	E200.7 Metals, Trace Elements	11/18/2024 16:20	11/19/2024 16:39	5
Q2449497001	WELL 7	DW	E200.8, ICP-MS	11/18/2024 16:20	11/19/2024 16:39	16
Q2449497001	WELL 7	DW	E300.0, Anions	11/18/2024 16:20	11/19/2024 16:39	6
Q2449497001	WELL 7	DW	E335.4 CN, SemiAuto Col	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	SM1030B Cation/Anion Balance	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	SM2320B, Alkalinity	11/18/2024 16:20	11/19/2024 16:39	3
Q2449497001	WELL 7	DW	SM2340B, Hardness Calc.	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	SM2510B, Conductivity @ 25°C	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	SM2540C, TDS	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497001	WELL 7	DW	SM4500-H+B, pH @ 25°C	11/18/2024 16:20	11/19/2024 16:39	2
Q2449497001	WELL 7	DW	SM4500-SiO2-C, Silica	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	245.1Hg	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	E200.7 Metals, Trace Elements	11/19/2024 10:30	11/19/2024 16:39	5
Q2449497002	WELL 3	DW	E200.8, ICP-MS	11/19/2024 10:30	11/19/2024 16:39	16
Q2449497002	WELL 3	DW	E300.0, Anions	11/19/2024 10:30	11/19/2024 16:39	6
Q2449497002	WELL 3	DW	E335.4 CN, SemiAuto Col	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	SM2320B, Alkalinity	11/19/2024 10:30	11/19/2024 16:39	3
Q2449497002	WELL 3	DW	SM2340B, Hardness Calc.	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	SM2510B, Conductivity @ 25°C	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	SM2540C, TDS	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497002	WELL 3	DW	SM4500-H+B, pH @ 25°C	11/19/2024 10:30	11/19/2024 16:39	2
Q2449497002	WELL 3	DW	SM4500-SiO2-C, Silica	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497003	WELL 7 DISSOLVED	DW	245.1Hg	11/18/2024 16:20	11/19/2024 16:39	1
Q2449497003	WELL 7 DISSOLVED	DW	E200.7 Metals, Trace Elements	11/18/2024 16:20	11/19/2024 16:39	5
Q2449497003	WELL 7 DISSOLVED	DW	E200.8, ICP-MS	11/18/2024 16:20	11/19/2024 16:39	16
Q2449497004	WELL 3 DISSOLVED	DW	245.1Hg	11/19/2024 10:30	11/19/2024 16:39	1
Q2449497004	WELL 3 DISSOLVED	DW	E200.7 Metals, Trace Elements	11/19/2024 10:30	11/19/2024 16:39	5
Q2449497004	WELL 3 DISSOLVED	DW	E200.8, ICP-MS	11/19/2024 10:30	11/19/2024 16:39	16

Report Definitions

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

MRL - Minimum Reporting Limit
LOD - Limit of Detection
ML - Maximum Limit - Client Specified
MCL - Maximum Contaminant Level
LOQ - Limit of Quantitation - Client Specified
DF - Dilution Factor
(S) - Surrogate Spike
MDL - Method Detection Limit
RPD - Relative Percent Difference

Qualifier Definitions

J - Analyte detected below quantitation limit
R - RPD outside duplicate precision limit
S - Spike recovery outside limit
B- Analyte detected in method blank
N - Not Accredited
M - Analyte Detected Above Maximum Contaminant Level
SL - Spike Recovery Low
SH - Spike Recovery High
H - Analyzed Past Hold Time
CR - Confirmed Result
CH - Result confirmed by historical data

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder Summary

Analysis Results Comments

Lab ID: Q2449497001 Sample ID: WELL 7

Chloride - Result confirmed by reanalysis.

Lab ID: Q2449497002 Sample ID: WELL 3

Chloride - Result confirmed by reanalysis.

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Analytical Results

Client ID: THORNHILL
Lab ID: Q2449497001
Sample ID: WELL 7
Project ID: BGE-POID

Date Collected: 11/18/2024 16:20
Date Received: 11/19/2024 16:39
Location:
Facility:
Sample Point:

Matrix: Drinking Water
Sample Type: SAMPLE

ALKALINITY (SM2320B, Alkalinity)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bicarbonate Alkalinity	486	mg/L	0.00	0.00		1	11/20/2024 17:42	VR	11/20/2024 17:42	VR	N
Carbonate Alkalinity	0.00	mg/L	0.00	0.00		1	11/20/2024 17:42	VR	11/20/2024 17:42	VR	N
Total Alkalinity (CaCO3)	486	mg/L	20.0	20.0		1	11/20/2024 17:42	VR	11/20/2024 17:42	VR	N

CYANIDE, TOTAL (E335.4 CN, SemiAuto Col)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Cyanide, Total	<0.0200	mg/L	0.0200	0.00500	0.20	1	11/22/2024 14:20	MTH	11/25/2024 00:00	VR	

Conductance @ 25°C (SM2510B, Conductivity @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Specific Conductance	3670	umho/cm	10.0	10.0		1	11/20/2024 12:48	VR	11/20/2024 12:48	VR	

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Total	<0.00020	mg/L	0.00020	0.00020	0.0020	1	12/10/2024 19:43	FO	12/10/2024 19:43	FO	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Total	23.1	mg/L	0.200	0.0700		1	11/20/2024 12:00	MTH	11/26/2024 13:08	ML	N
Magnesium Total	16.4	mg/L	0.200	0.0700		1	11/20/2024 12:00	MTH	11/26/2024 13:08	ML	
Potassium Total	7.43	mg/L	0.200	0.0700		1	11/20/2024 12:00	MTH	11/26/2024 13:08	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Iron Total	0.123	mg/L	0.0500	0.0200		1	11/20/2024 12:00	MTH	12/04/2024 16:45	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Total	803	mg/L	1.00	0.350		5	11/20/2024 12:00	MTH	11/26/2024 13:35	ML	

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/18/2024 16:20	**Matrix:**	Drinking Water
Lab ID:	Q2449497001	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 7	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Total	0.0248	mg/L	0.00500	0.00200		1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Antimony Total	<0.00100	mg/L	0.00100	0.000400	0.0060	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Arsenic Total	0.00502	mg/L	0.00100	0.000400	0.01	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Barium Total	0.408	mg/L	0.00100	0.000400	2	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Beryllium Total	<0.00100	mg/L	0.00100	0.000400	0.0040	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Cadmium Total	<0.00100	mg/L	0.00100	0.000400	0.0050	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Chromium Total	0.0165	mg/L	0.00100	0.000400	0.10	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Copper Total	0.00498	mg/L	0.00100	0.000400	1	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Lithium Total	0.0449	mg/L	0.00200	0.000700		1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Lead Total	<0.00100	mg/L	0.00100	0.000400	0.0150	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Manganese Total	0.00897	mg/L	0.00100	0.000400		1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Selenium Total	<0.00500	mg/L	0.00500	0.00200	0.05	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Silver Total	<0.00100	mg/L	0.00100	0.000400		1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Thallium Total	<0.00100	mg/L	0.00100	0.000200	0.0020	1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	
Zinc Total	<0.00500	mg/L	0.00500	0.00200		1	11/20/2024 12:00	MTH	12/03/2024 18:33	FO	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Strontium Total	0.590	mg/L	0.00500	0.00200		5	11/20/2024 12:00	MTH	12/04/2024 14:13	FO	N

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bromide	3.14	mg/L	0.0100	0.00500		1	11/20/2024 10:51	MAB	11/20/2024 10:51	MAB	
Nitrite (as N)	<0.0100	mg/L	0.0100	0.00500	1	1	11/20/2024 10:51	MAB	11/20/2024 10:51	MAB	
Nitrate (as N)	<0.0100	mg/L	0.0100	0.00500	10	1	11/20/2024 10:51	MAB	11/20/2024 10:51	MAB	
Sulfate	3.17	mg/L	1.00	0.500		1	11/20/2024 10:51	MAB	11/20/2024 10:51	MAB	

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Chloride	1010	mg/L	10.0	5.00		10	11/20/2024 12:32	MAB	11/20/2024 12:32	MAB	CR
Fluoride	0.729	mg/L	0.100	0.0500	4	10	11/20/2024 12:32	MAB	11/20/2024 12:32	MAB	

INORGANICS (SM1030B Cation/Anion Balance)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Cation/Anion Balance	-0.8900	%				1	02/24/2025 12:31	CW	02/24/2025 12:31	CW	N

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/18/2024 16:20	**Matrix:**	Drinking Water
Lab ID:	Q2449497001	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 7	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

INORGANICS (SM2340B, Hardness Calc.)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Hardness (as CaCO3)	125	mg/L				1	12/04/2024 13:05	CW	12/04/2024 13:05	CW	N

SILICA (SM4500-SiO2-C, Silica)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Silica as SiO2, Dissolved	14.5	mg/L	0.500	0.200		1	12/02/2024 00:00	VR	12/02/2024 00:00	VR	N

TOTAL DISSOLVED SOLIDS (SM2540C, TDS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Dissolved Solids(TDS)	1970	mg/L	25.0	10.0		10	11/22/2024 14:57	JLL	11/22/2024 14:57	JLL	

pH (SM4500-H+B, pH @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
pH	8.06	pH	0.00	0.00		1	11/22/2024 08:06	ML	11/22/2024 08:06	ML	N
Temperature	17.7	C				1	11/22/2024 08:06	ML	11/22/2024 08:06	ML	N

Sample Comments

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/19/2024 10:30	**Matrix:**	Drinking Water
Lab ID:	Q2449497002	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 3	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

ALKALINITY (SM2320B, Alkalinity)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bicarbonate Alkalinity	0.00	mg/L	0.00	0.00		1	11/20/2024 19:09	VR	11/20/2024 19:09	VR	N
Carbonate Alkalinity	0.00	mg/L	0.00	0.00		1	11/20/2024 19:09	VR	11/20/2024 19:09	VR	N
Total Alkalinity (CaCO3)	<20.0	mg/L	20.0	20.0		1	11/20/2024 19:09	VR	11/20/2024 19:09	VR	N

CYANIDE, TOTAL (E335.4 CN, SemiAuto Col)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Cyanide, Total	<0.0200	mg/L	0.0200	0.00500	0.20	1	11/22/2024 14:20	MTH	11/25/2024 00:00	VR	

Conductance @ 25°C (SM2510B, Conductivity @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Specific Conductance	2890	umho/cm	10.0	10.0		1	11/20/2024 12:50	VR	11/20/2024 12:50	VR	

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Total	<0.00020	mg/L	0.00020	0.00020	0.0020	1	12/10/2024 19:50	FO	12/10/2024 19:50	FO	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Total	28.8	mg/L	0.200	0.0700		1	11/21/2024 10:27	MTH	11/25/2024 16:28	ML	N
Iron Total	0.111	mg/L	0.0500	0.0200		1	11/21/2024 10:27	MTH	11/25/2024 16:28	ML	
Magnesium Total	17.3	mg/L	0.200	0.0700		1	11/21/2024 10:27	MTH	11/25/2024 16:28	ML	
Potassium Total	7.41	mg/L	0.200	0.0700		1	11/21/2024 10:27	MTH	11/25/2024 16:28	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Total	723	mg/L	2.00	0.700		10	11/21/2024 10:27	MTH	12/12/2024 14:13	ML	

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/19/2024 10:30	**Matrix:**	Drinking Water
Lab ID:	Q2449497002	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 3	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Total	0.0112	mg/L	0.00500	0.00200		1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Antimony Total	<0.00100	mg/L	0.00100	0.000400	0.0060	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Arsenic Total	0.00105	mg/L	0.00100	0.000400	0.01	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Barium Total	0.0778	mg/L	0.00100	0.000400	2	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Cadmium Total	<0.00100	mg/L	0.00100	0.000400	0.0050	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Chromium Total	0.00196	mg/L	0.00100	0.000400	0.10	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Copper Total	0.00170	mg/L	0.00100	0.000400	1	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Lead Total	<0.00100	mg/L	0.00100	0.000400	0.0150	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Manganese Total	0.0518	mg/L	0.00100	0.000400		1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Selenium Total	<0.00500	mg/L	0.00500	0.00200	0.05	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Silver Total	<0.00100	mg/L	0.00100	0.000400		1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Strontium Total	0.407	mg/L	0.00100	0.000400		1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	N
Thallium Total	<0.00100	mg/L	0.00100	0.000200	0.0020	1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	
Zinc Total	<0.00500	mg/L	0.00500	0.00200		1	11/21/2024 10:49	MTH	11/26/2024 16:22	FO	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Beryllium Total	<0.00100	mg/L	0.00100	0.000400	0.0040	1	11/21/2024 10:49	MTH	12/04/2024 16:28	FO	
Lithium Total	0.0364	mg/L	0.00200	0.000700		1	11/21/2024 10:49	MTH	12/04/2024 16:28	FO	

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Chloride	707	mg/L	10.0	5.00		10	11/20/2024 12:52	MAB	11/20/2024 12:52	MAB	CR
Fluoride	0.462	mg/L	0.100	0.0500	4	10	11/20/2024 12:52	MAB	11/20/2024 12:52	MAB	

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bromide	1.96	mg/L	0.0100	0.00500		1	11/20/2024 11:11	MAB	11/20/2024 11:11	MAB	
Nitrite (as N)	<0.0100	mg/L	0.0100	0.00500	1	1	11/20/2024 11:11	MAB	11/20/2024 11:11	MAB	
Nitrate (as N)	<0.0100	mg/L	0.0100	0.00500	10	1	11/20/2024 11:11	MAB	11/20/2024 11:11	MAB	
Sulfate	33.0	mg/L	1.00	0.500		1	11/20/2024 11:11	MAB	11/20/2024 11:11	MAB	

INORGANICS (SM2340B, Hardness Calc.)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Hardness (as CaCO3)	143	mg/L				1	02/24/2025 16:06	CW	02/24/2025 16:06	CW	N

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/19/2024 10:30	**Matrix:**	Drinking Water
Lab ID:	Q2449497002	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 3	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

SILICA (SM4500-SiO2-C, Silica)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Silica as SiO2, Dissolved	16.1	mg/L	0.500	0.200		1	12/02/2024 00:00	VR	12/02/2024 00:00	VR	N

TOTAL DISSOLVED SOLIDS (SM2540C, TDS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Dissolved Solids(TDS)	1590	mg/L	25.0	10.0		10	11/22/2024 14:57	JLL	11/22/2024 14:57	JLL	

pH (SM4500-H+B, pH @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
pH	7.83	pH	0.00	0.00		1	11/22/2024 08:09	ML	11/22/2024 08:09	ML	N
Temperature	17.4	C				1	11/22/2024 08:09	ML	11/22/2024 08:09	ML	N

Sample Comments

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

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Analytical Results

Client ID: THORNHILL
Lab ID: Q2449497003
Sample ID: WELL 7 DISSOLVED
Project ID: BGE-POID

Date Collected: 11/18/2024 16:20
Date Received: 11/19/2024 16:39
Location:
Facility:
Sample Point:

Matrix: Drinking Water
Sample Type: SAMPLE

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Dissolved	<0.20	ug/L	0.20	0.20	2	1	12/10/2024 19:39	FO	12/10/2024 19:39	FO	N

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Dissolved	21.8	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:31	ML	N
Iron Dissolved	<0.0500	mg/L	0.0500	0.0200		1	11/26/2024 11:53	TVT	12/04/2024 09:31	ML	
Magnesium Dissolved	16.0	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:31	ML	
Potassium Dissolved	7.23	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:31	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Dissolved	748	mg/L	2.00	0.700		10	11/26/2024 11:53	TVT	12/12/2024 13:48	ML	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Antimony Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Arsenic Dissolved	0.00390	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Barium Dissolved	0.420	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Beryllium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Cadmium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Chromium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Copper Dissolved	0.00125	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Lithium Dissolved	0.0341	mg/L	0.00200	0.000700		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Lead Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Manganese Dissolved	0.00698	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Selenium Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Silver Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Thallium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	
Zinc Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:37	FO	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Strontium Dissolved	2.16	mg/L	0.00500	0.00200		5	12/03/2024 16:06	MTH	12/06/2024 16:25	FO	N

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/19/2024 10:30	**Matrix:**	Drinking Water
Lab ID:	Q2449497004	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 3 DISSOLVED	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Dissolved	<0.20	ug/L	0.20	0.20	2	1	12/10/2024 19:47	FO	12/10/2024 19:47	FO	N

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Dissolved	631	mg/L	2.00	0.700		10	11/26/2024 11:53	TVT	12/12/2024 13:51	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Dissolved	28.4	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:33	ML	N
Iron Dissolved	<0.0500	mg/L	0.0500	0.0200		1	11/26/2024 11:53	TVT	12/04/2024 09:33	ML	
Magnesium Dissolved	16.5	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:33	ML	
Potassium Dissolved	7.84	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 09:33	ML	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Dissolved	0.00619	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Antimony Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Arsenic Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Barium Dissolved	0.0814	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Beryllium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Cadmium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Chromium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Copper Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Lithium Dissolved	0.0333	mg/L	0.00200	0.000700		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Lead Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Manganese Dissolved	0.0512	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Selenium Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Silver Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Strontium Dissolved	0.451	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	N
Thallium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	
Zinc Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:39	FO	

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Quality Control Results

QC Batch: MET/10709
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2449497002
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2167053)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Calcium Total	mg/L	0.2	0.18	90.2	50 - 150	
Magnesium Total	mg/L	0.2	0.205	103.0	50 - 150	
Potassium Total	mg/L	0.2	0.203	101.0	50 - 150	

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Quality Control Results

QC Batch: MET/10709
Preparation Method: E200.7 Prep
Associated Lab IDs: Q2449497002
Analysis Method: E200.7 Metals, Trace Elements

Laboratory Reagent Blank(2165758)

Parameter	Units	Results	MRL	LOD	Qualifier
Calcium Total	mg/L	<0.200	0.2	0.07	
Iron Total	mg/L	<0.0500	0.05	0.02	
Magnesium Total	mg/L	<0.200	0.2	0.07	
Potassium Total	mg/L	<0.200	0.2	0.07	
Sodium Total	mg/L	<0.200	0.2	0.07	

Laboratory Fortified Blank (2165759); Lab Fortified Blank Duplicate (2165760)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	9.15	91.5	85 - 115	9.04	90.4	1.21	20	
Iron Total	mg/L	1.0	1.05	105.0	85 - 115	1.04	104.0	0.957	20	
Magnesium Total	mg/L	10.0	10.2	102.0	85 - 115	10.1	101.0	0.985	20	
Potassium Total	mg/L	10.0	9.19	91.9	85 - 115	8.87	88.7	3.54	20	
Sodium Total	mg/L	10.0	9.36	93.6	85 - 115	9.08	90.8	3.04	20	

Laboratory Fortified Matrix (2165761); Lab Fortified Matrix Duplicate (2165762); Original: Q2449022005

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	17.4	86.2	70 - 130	18.1	94.0	8.66	20	
Iron Total	mg/L	1.0	1.04	104.0	70 - 130	1.07	107.0	2.84	20	
Magnesium Total	mg/L	10.0	12.1	93.1	70 - 130	13.0	102.0	9.12	20	
Potassium Total	mg/L	10.0	11.2	84.2	70 - 130	12.1	92.8	9.72	20	
Sodium Total	mg/L	10.0	152.0	136.0	70 - 130	155.0	161.0	16.8	20	SH

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Quality Control Results

QC Batch: MET/10713
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2449497001
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2167444)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Calcium Total	mg/L	0.2	0.197	98.6	50 - 150	
Magnesium Total	mg/L	0.2	0.216	108.0	50 - 150	
Potassium Total	mg/L	0.2	0.212	106.0	50 - 150	
Sodium Total	mg/L	0.2	0.213	106.0	50 - 150	

Duplicate (2168661); Original Q2448089001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	11.34179	0.0	200.0	20	R
Magnesium Total	mg/L	5.39291	0.0	200.0	20	R
Potassium Total	mg/L	12.25137	0.0	200.0	20	R
Sodium Total	mg/L	1.1917	0.0	200.0	20	R

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Quality Control Results

QC Batch: MET/10713
Preparation Method: E200.7 Prep
Associated Lab IDs: Q2449497001
Analysis Method: E200.7 Metals, Trace Elements

Laboratory Reagent Blank(2165446)

Parameter	Units	Results	MRL	LOD	Qualifier
Calcium Total	mg/L	<0.200	0.2	0.07	
Iron Total	mg/L	<0.0500	0.05	0.02	
Magnesium Total	mg/L	<0.200	0.2	0.07	
Potassium Total	mg/L	<0.200	0.2	0.07	
Sodium Total	mg/L	<0.200	0.2	0.07	

Laboratory Fortified Matrix (2165447); Lab Fortified Matrix Duplicate (2165448); Original: Q2448961005

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	15.3	101.0	70 - 130	15.1	98.3	2.71	20	
Iron Total	mg/L	1.0	1.55	136.0	70 - 130	1.55	136.0	0.0	20	SH
Magnesium Total	mg/L	10.0	13.1	107.0	70 - 130	12.8	104.0	2.84	20	
Potassium Total	mg/L	10.0	12.0	106.0	70 - 130	11.7	103.0	2.87	20	
Sodium Total	mg/L	10.0	196.0	158.0	70 - 130	190.0	100.0	45.0	20	R,SH

Laboratory Fortified Blank (2165444); Lab Fortified Blank Duplicate (2165445)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	9.47	94.7	85 - 115	9.6	96.0	1.36	20	
Iron Total	mg/L	1.0	1.35	135.0	85 - 115	1.37	137.0	1.47	20	SH
Magnesium Total	mg/L	10.0	10.6	106.0	85 - 115	10.7	107.0	0.939	20	
Potassium Total	mg/L	10.0	9.85	98.5	85 - 115	10.0	100.0	1.51	20	
Sodium Total	mg/L	10.0	10.3	103.0	85 - 115	10.5	105.0	1.92	20	

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Quality Control Results

QC Batch: MET/10715
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2167830)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Aluminum Total	mg/L	0.005	0.0056	111.0	50 - 150	
Zinc Total	mg/L	0.005	0.0048	96.3	50 - 150	

Method Reporting Limit Check (2167829)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Antimony Total	mg/L	0.001	0.0012	120.0	50 - 150	
Arsenic Total	mg/L	0.001	0.0011	105.0	50 - 150	
Barium Total	mg/L	0.001	0.001	102.0	50 - 150	
Cadmium Total	mg/L	0.001	0.001	99.1	50 - 150	
Chromium Total	mg/L	0.001	0.0008	79.3	50 - 150	
Copper Total	mg/L	0.001	0.0012	121.0	50 - 150	
Lead Total	mg/L	0.001	0.0008	83.9	50 - 150	
Manganese Total	mg/L	0.001	0.001	97.7	50 - 150	
Selenium Total	mg/L	0.005	0.0055	110.0	50 - 150	
Silver Total	mg/L	0.001	0.001	101.0	50 - 150	
Strontium Total	mg/L	0.001	0.001	103.0	50 - 150	
Thallium Total	mg/L	0.001	0.001	101.0	50 - 150	

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Quality Control Results

QC Batch: MET/10715
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Matrix (2165985); Lab Fortified Matrix Duplicate (2165986); Original: Q2449372001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0673	104.0	70 - 130	0.064	97.1	6.86	20	
Antimony Total	mg/L	0.05	0.0502	100.0	70 - 130	0.0518	104.0	3.92	20	
Arsenic Total	mg/L	0.05	0.049	98.1	70 - 130	0.0481	96.3	1.85	20	
Barium Total	mg/L	0.05	0.148	99.5	70 - 130	0.148	99.5	0.0	20	
Beryllium Total	mg/L	0.05	0.0506	101.0	70 - 130	0.0497	99.3	1.7	20	
Cadmium Total	mg/L	0.05	0.0488	97.5	70 - 130	0.049	98.0	0.512	20	
Chromium Total	mg/L	0.05	0.0478	95.6	70 - 130	0.0471	94.3	1.37	20	
Copper Total	mg/L	0.05	0.0513	94.6	70 - 130	0.0506	93.1	1.6	20	
Lithium Total	mg/L	0.05	0.0509	102.0	70 - 130	0.0508	102.0	0.0	20	
Lead Total	mg/L	0.05	0.0477	95.4	70 - 130	0.0489	97.8	2.48	20	
Manganese Total	mg/L	0.05	0.0844	95.2	70 - 130	0.0831	92.6	2.77	20	
Selenium Total	mg/L	0.25	0.247	98.8	70 - 130	0.242	96.7	2.15	20	
Silver Total	mg/L	0.05	0.0334	66.9	70 - 130	0.0339	67.7	1.19	20	SL
Strontium Total	mg/L	0.05	0.214	93.2	70 - 130	0.208	81.8	13.0	20	
Thallium Total	mg/L	0.05	0.047	94.0	70 - 130	0.0483	96.6	2.73	20	
Zinc Total	mg/L	0.05	0.051	102.0	70 - 130	0.0495	99.0	2.99	20	

Laboratory Reagent Blank(2165982)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Total	mg/L	<0.00500	0.005	0.002	
Antimony Total	mg/L	<0.00100	0.001	0.0004	
Arsenic Total	mg/L	<0.00100	0.001	0.0004	
Barium Total	mg/L	<0.00100	0.001	0.0004	
Beryllium Total	mg/L	<0.00100	0.001	0.0004	
Cadmium Total	mg/L	<0.00100	0.001	0.0004	
Chromium Total	mg/L	<0.00100	0.001	0.0004	
Copper Total	mg/L	<0.00100	0.001	0.0004	
Lithium Total	mg/L	<0.00200	0.002	0.0007	
Lead Total	mg/L	<0.00100	0.001	0.0004	
Manganese Total	mg/L	<0.00100	0.001	0.0004	
Selenium Total	mg/L	<0.00500	0.005	0.002	
Silver Total	mg/L	<0.00100	0.001	0.0004	
Strontium Total	mg/L	<0.00100	0.001	0.0004	
Thallium Total	mg/L	<0.00100	0.001	0.0002	
Zinc Total	mg/L	<0.00500	0.005	0.002	

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Quality Control Results

QC Batch: MET/10715
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2165983); Lab Fortified Blank Duplicate (2165984)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0487	97.3	85 - 115	0.0488	97.5	0.205	20	
Antimony Total	mg/L	0.05	0.0487	97.3	85 - 115	0.0508	102.0	4.72	20	
Arsenic Total	mg/L	0.05	0.0482	96.5	85 - 115	0.0489	97.9	1.44	20	
Barium Total	mg/L	0.05	0.0497	99.5	85 - 115	0.0498	99.6	0.1	20	
Beryllium Total	mg/L	0.05	0.051	102.0	85 - 115	0.051	102.0	0.0	20	
Cadmium Total	mg/L	0.05	0.0487	97.5	85 - 115	0.0509	102.0	4.51	20	
Chromium Total	mg/L	0.05	0.0499	99.8	85 - 115	0.0488	97.6	2.23	20	
Copper Total	mg/L	0.05	0.0479	95.9	85 - 115	0.0488	97.7	1.86	20	
Lithium Total	mg/L	0.05	0.0517	103.0	85 - 115	0.0518	104.0	0.966	20	
Lead Total	mg/L	0.05	0.049	98.0	85 - 115	0.0494	98.9	0.914	20	
Manganese Total	mg/L	0.05	0.0507	101.0	85 - 115	0.0494	98.7	2.3	20	
Selenium Total	mg/L	0.25	0.246	98.3	85 - 115	0.251	100.0	1.71	20	
Silver Total	mg/L	0.05	0.0479	95.9	85 - 115	0.0492	98.4	2.57	20	
Strontium Total	mg/L	0.05	0.0521	104.0	85 - 115	0.0528	106.0	1.9	20	
Thallium Total	mg/L	0.05	0.0494	98.8	85 - 115	0.0496	99.2	0.404	20	
Zinc Total	mg/L	0.05	0.0474	94.8	85 - 115	0.048	96.0	1.26	20	

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Quality Control Results

QC Batch: MET/10716
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2449497003, Q2449497004
Analysis Method: E200.7 Metals, Trace Elements

Duplicate (2171863); Original Q2449651004

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	45.14175	44.8972	0.543	20	
Iron Dissolved	mg/L	1.2614	1.2287	2.62	20	
Magnesium Dissolved	mg/L	11.36665	11.1247	2.15	20	
Potassium Dissolved	mg/L	5.63968	5.6127	0.48	20	

Duplicate (2171866); Original Q2449846006

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	9.56079	9.2093	3.75	20	
Iron Dissolved	mg/L	1.25186	1.2467	0.415	20	
Magnesium Dissolved	mg/L	3.36378	3.3301	1.0	20	
Potassium Dissolved	mg/L	5.69708	5.5603	2.43	20	

Method Reporting Limit Check (2168933)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Calcium Dissolved	mg/L	0.2	0.174	86.8	50 - 150	
Magnesium Dissolved	mg/L	0.2	0.207	104.0	50 - 150	
Potassium Dissolved	mg/L	0.2	0.166	82.9	50 - 150	

Duplicate (2171862); Original Q2449272001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	104.94251	102.4141	2.44	20	
Iron Dissolved	mg/L	1.78416	1.8094	1.41	20	
Magnesium Dissolved	mg/L	10.26577	10.1591	1.04	20	
Potassium Dissolved	mg/L	6.06827	6.1084	0.66	20	

Method Reporting Limit Check (2168934)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Iron Dissolved	mg/L	0.05	0.0492	98.4	50 - 150	

Duplicate (2171867); Original Q2449846010

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	1.85116	1.8017	2.71	20	
Iron Dissolved	mg/L	.93427	0.9145	2.14	20	
Magnesium Dissolved	mg/L	.83825	0.8228	1.86	20	
Potassium Dissolved	mg/L	3.20911	3.0846	3.96	20	

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Quality Control Results

QC Batch: MET/10716
Preparation Method: E200.7 Prep
Associated Lab IDs: Q2449497003, Q2449497004
Analysis Method: E200.7 Metals, Trace Elements

Laboratory Fortified Matrix (2167775); Lab Fortified Matrix Duplicate (2167776); Original: Q2449640009

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	10.0	9.88	93.4	70 - 130	9.88	93.4			
Iron Dissolved	mg/L	1.0	1.05	97.9	70 - 130	1.06	98.6			
Magnesium Dissolved	mg/L	10.0	10.0	97.6	70 - 130	9.76	95.2			
Potassium Dissolved	mg/L	10.0	10.4	95.7	70 - 130	11.1	102.0			
Sodium Dissolved	mg/L	10.0	259.0	252.0	70 - 130	280.0	455.0			SH

Laboratory Fortified Blank (2167773); Lab Fortified Blank Duplicate (2167774)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	10.0	9.09	90.9	85 - 115	9.21	92.1	1.31	20	
Iron Dissolved	mg/L	1.0	0.992	99.2	85 - 115	1.01	101.0	1.8	20	
Magnesium Dissolved	mg/L	10.0	9.84	98.4	85 - 115	9.95	99.5	1.11	20	
Potassium Dissolved	mg/L	10.0	9.39	93.9	85 - 115	9.7	97.0	3.25	20	
Sodium Dissolved	mg/L	10.0	9.4	94.0	85 - 115	9.77	97.7	3.86	20	

Laboratory Reagent Blank(2167772)

Parameter	Units	Results	MRL	LOD	Qualifier
Calcium Dissolved	mg/L	<0.200	0.2	0.07	
Iron Dissolved	mg/L	<0.0500	0.05	0.02	
Magnesium Dissolved	mg/L	<0.200	0.2	0.07	
Potassium Dissolved	mg/L	<0.200	0.2	0.07	
Sodium Dissolved	mg/L	<0.200	0.2	0.07	

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497001
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2169829)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Antimony Total	mg/L	0.001	0.0013	130.0	50 - 150	
Arsenic Total	mg/L	0.001	0.0011	114.0	50 - 150	
Barium Total	mg/L	0.001	0.001	104.0	50 - 150	
Beryllium Total	mg/L	0.001	0.001	102.0	50 - 150	
Cadmium Total	mg/L	0.001	0.0011	109.0	50 - 150	
Chromium Total	mg/L	0.001	0.0012	118.0	50 - 150	
Copper Total	mg/L	0.001	0.0013	134.0	50 - 150	
Lithium Total	mg/L	0.001	0.0014	138.0	50 - 150	
Lead Total	mg/L	0.001	0.001	103.0	50 - 150	
Manganese Total	mg/L	0.001	0.001	102.0	50 - 150	
Selenium Total	mg/L	0.005	0.0051	102.0	50 - 150	
Silver Total	mg/L	0.001	0.001	104.0	50 - 150	
Thallium Total	mg/L	0.001	0.001	103.0	50 - 150	

Method Reporting Limit Check (2169854)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Aluminum Total	mg/L	0.005	0.0053	105.0	50 - 150	
Zinc Total	mg/L	0.005	0.0052	104.0	50 - 150	

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497001
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2165450)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Lithium Total	mg/L	0.05	0.0519	104.0	85 - 115	
Strontium Total	mg/L	0.05	0.0517	103.0	85 - 115	

Laboratory Fortified Matrix (2165452); Lab Fortified Matrix Duplicate (2165453); Original: Q2448961005

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0546	98.3	70 - 130	0.0534	95.9	2.47	20	
Antimony Total	mg/L	0.05	0.0528	106.0	70 - 130	0.0538	108.0	1.87	20	
Arsenic Total	mg/L	0.05	0.0517	103.0	70 - 130	0.0512	102.0	0.976	20	
Barium Total	mg/L	0.05	0.0766	99.8	70 - 130	0.0755	97.5	2.33	20	
Beryllium Total	mg/L	0.05	0.0505	101.0	70 - 130	0.0491	98.3	2.71	20	
Cadmium Total	mg/L	0.05	0.0508	102.0	70 - 130	0.0523	105.0	2.9	20	
Chromium Total	mg/L	0.05	0.0484	96.8	70 - 130	0.047	93.9	3.04	20	
Copper Total	mg/L	0.05	0.0566	101.0	70 - 130	0.0555	98.7	2.3	20	
Lithium Total	mg/L	0.05	0.0603	101.0	70 - 130	0.061	103.0	1.96	20	
Lead Total	mg/L	0.05	0.0509	102.0	70 - 130	0.052	104.0	1.94	20	
Manganese Total	mg/L	0.05	0.0873	101.0	70 - 130	0.0863	98.7	2.3	20	
Selenium Total	mg/L	0.25	0.255	102.0	70 - 130	0.254	102.0	0.0	20	
Silver Total	mg/L	0.05	0.047	94.1	70 - 130	0.0485	96.9	2.93	20	
Strontium Total	mg/L	0.05	0.254	92.2	70 - 130	0.255	93.4	1.29	20	
Thallium Total	mg/L	0.05	0.0481	96.2	70 - 130	0.0505	101.0	4.87	20	
Zinc Total	mg/L	0.05	0.0652	107.0	70 - 130	0.0634	104.0	2.84	20	

Laboratory Fortified Blank (2165450); Lab Fortified Blank Duplicate (2165451)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0529	106.0	85 - 115	0.0533	107.0	0.939	20	
Antimony Total	mg/L	0.05	0.052	104.0	85 - 115	0.052	104.0	0.0	20	
Arsenic Total	mg/L	0.05	0.0501	100.0	85 - 115	0.0491	98.2	1.82	20	
Barium Total	mg/L	0.05	0.0497	99.4	85 - 115	0.0508	102.0	2.58	20	
Beryllium Total	mg/L	0.05	0.0511	102.0	85 - 115	0.0504	101.0	0.985	20	
Cadmium Total	mg/L	0.05	0.051	102.0	85 - 115	0.0515	103.0	0.976	20	
Chromium Total	mg/L	0.05	0.0501	100.0	85 - 115	0.0497	99.5	0.501	20	
Copper Total	mg/L	0.05	0.052	104.0	85 - 115	0.0494	98.7	5.23	20	
Lead Total	mg/L	0.05	0.0505	101.0	85 - 115	0.0523	105.0	3.88	20	
Manganese Total	mg/L	0.05	0.0521	104.0	85 - 115	0.0512	102.0	1.94	20	

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497001
Analysis Method: E200.8, ICP-MS

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Selenium Total	mg/L	0.25	0.252	101.0	85 - 115	0.245	97.9	3.12	20	
Silver Total	mg/L	0.05	0.0503	101.0	85 - 115	0.0501	100.0	0.995	20	
Thallium Total	mg/L	0.05	0.0501	100.0	85 - 115	0.0515	103.0	2.96	20	
Zinc Total	mg/L	0.05	0.0531	106.0	85 - 115	0.0516	103.0	2.87	20	

Laboratory Reagent Blank(2165449)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Total	mg/L	<0.00500	0.005	0.002	
Antimony Total	mg/L	<0.00100	0.001	0.0004	
Arsenic Total	mg/L	<0.00100	0.001	0.0004	
Barium Total	mg/L	<0.00100	0.001	0.0004	
Beryllium Total	mg/L	<0.00100	0.001	0.0004	
Cadmium Total	mg/L	<0.00100	0.001	0.0004	
Chromium Total	mg/L	<0.00100	0.001	0.0004	
Copper Total	mg/L	<0.00100	0.001	0.0004	
Lithium Total	mg/L	<0.00200	0.002	0.0007	
Lead Total	mg/L	<0.00100	0.001	0.0004	
Manganese Total	mg/L	<0.00100	0.001	0.0004	
Selenium Total	mg/L	<0.00500	0.005	0.002	
Silver Total	mg/L	<0.00100	0.001	0.0004	
Strontium Total	mg/L	<0.00100	0.001	0.0004	
Thallium Total	mg/L	<0.00100	0.001	0.0002	
Zinc Total	mg/L	<0.00500	0.005	0.002	

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Quality Control Results

QC Batch: MET/10724
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497001
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2170465)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Strontium Total	mg/L	0.001	0.001	103.0	50 - 150	

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Quality Control Results

QC Batch: MET/10725
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2170719)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Beryllium Total	mg/L	0.001	0.001	104.0	50 - 150	
Lithium Total	mg/L	0.001	0.0012	117.0	50 - 150	

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Quality Control Results

QC Batch: MET/10725
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Matrix (2165985); Lab Fortified Matrix Duplicate (2165986); Original: Q2449372001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0673	104.0	70 - 130	0.064	97.1	6.86	20	
Antimony Total	mg/L	0.05	0.0502	100.0	70 - 130	0.0518	104.0	3.92	20	
Arsenic Total	mg/L	0.05	0.049	98.1	70 - 130	0.0481	96.3	1.85	20	
Barium Total	mg/L	0.05	0.148	99.5	70 - 130	0.148	99.5	0.0	20	
Beryllium Total	mg/L	0.05	0.0506	101.0	70 - 130	0.0497	99.3	1.7	20	
Cadmium Total	mg/L	0.05	0.0488	97.5	70 - 130	0.049	98.0	0.512	20	
Chromium Total	mg/L	0.05	0.0478	95.6	70 - 130	0.0471	94.3	1.37	20	
Copper Total	mg/L	0.05	0.0513	94.6	70 - 130	0.0506	93.1	1.6	20	
Lithium Total	mg/L	0.05	0.0509	102.0	70 - 130	0.0508	102.0	0.0	20	
Lead Total	mg/L	0.05	0.0477	95.4	70 - 130	0.0489	97.8	2.48	20	
Manganese Total	mg/L	0.05	0.0844	95.2	70 - 130	0.0831	92.6	2.77	20	
Selenium Total	mg/L	0.25	0.247	98.8	70 - 130	0.242	96.7	2.15	20	
Silver Total	mg/L	0.05	0.0334	66.9	70 - 130	0.0339	67.7	1.19	20	SL
Strontium Total	mg/L	0.05	0.214	93.2	70 - 130	0.208	81.8	13.0	20	
Thallium Total	mg/L	0.05	0.047	94.0	70 - 130	0.0483	96.6	2.73	20	
Zinc Total	mg/L	0.05	0.051	102.0	70 - 130	0.0495	99.0	2.99	20	

Laboratory Reagent Blank(2165982)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Total	mg/L	<0.00500	0.005	0.002	
Antimony Total	mg/L	<0.00100	0.001	0.0004	
Arsenic Total	mg/L	<0.00100	0.001	0.0004	
Barium Total	mg/L	<0.00100	0.001	0.0004	
Beryllium Total	mg/L	<0.00100	0.001	0.0004	
Cadmium Total	mg/L	<0.00100	0.001	0.0004	
Chromium Total	mg/L	<0.00100	0.001	0.0004	
Copper Total	mg/L	<0.00100	0.001	0.0004	
Lithium Total	mg/L	<0.00200	0.002	0.0007	
Lead Total	mg/L	<0.00100	0.001	0.0004	
Manganese Total	mg/L	<0.00100	0.001	0.0004	
Selenium Total	mg/L	<0.00500	0.005	0.002	
Silver Total	mg/L	<0.00100	0.001	0.0004	
Strontium Total	mg/L	<0.00100	0.001	0.0004	
Thallium Total	mg/L	<0.00100	0.001	0.0002	
Zinc Total	mg/L	<0.00500	0.005	0.002	

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Quality Control Results

QC Batch: MET/10725
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497002
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2165983); Lab Fortified Blank Duplicate (2165984)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0487	97.3	85 - 115	0.0488	97.5	0.205	20	
Antimony Total	mg/L	0.05	0.0487	97.3	85 - 115	0.0508	102.0	4.72	20	
Arsenic Total	mg/L	0.05	0.0482	96.5	85 - 115	0.0489	97.9	1.44	20	
Barium Total	mg/L	0.05	0.0497	99.5	85 - 115	0.0498	99.6	0.1	20	
Beryllium Total	mg/L	0.05	0.051	102.0	85 - 115	0.051	102.0	0.0	20	
Cadmium Total	mg/L	0.05	0.0487	97.5	85 - 115	0.0509	102.0	4.51	20	
Chromium Total	mg/L	0.05	0.0499	99.8	85 - 115	0.0488	97.6	2.23	20	
Copper Total	mg/L	0.05	0.0479	95.9	85 - 115	0.0488	97.7	1.86	20	
Lithium Total	mg/L	0.05	0.0517	103.0	85 - 115	0.0518	104.0	0.966	20	
Lead Total	mg/L	0.05	0.049	98.0	85 - 115	0.0494	98.9	0.914	20	
Manganese Total	mg/L	0.05	0.0507	101.0	85 - 115	0.0494	98.7	2.3	20	
Selenium Total	mg/L	0.25	0.246	98.3	85 - 115	0.251	100.0	1.71	20	
Silver Total	mg/L	0.05	0.0479	95.9	85 - 115	0.0492	98.4	2.57	20	
Strontium Total	mg/L	0.05	0.0521	104.0	85 - 115	0.0528	106.0	1.9	20	
Thallium Total	mg/L	0.05	0.0494	98.8	85 - 115	0.0496	99.2	0.404	20	
Zinc Total	mg/L	0.05	0.0474	94.8	85 - 115	0.048	96.0	1.26	20	

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497003, Q2449497004
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2171089)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Aluminum Dissolved	mg/L	0.005	0.0053	105.0	50 - 150	
Zinc Dissolved	mg/L	0.005	0.0052	104.0	50 - 150	

Method Reporting Limit Check (2171090)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Antimony Dissolved	mg/L	0.001	0.0008	80.1	50 - 150	
Arsenic Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Barium Dissolved	mg/L	0.001	0.0011	108.0	50 - 150	
Beryllium Dissolved	mg/L	0.001	0.0011	107.0	50 - 150	
Cadmium Dissolved	mg/L	0.001	0.001	99.5	50 - 150	
Chromium Dissolved	mg/L	0.001	0.001	102.0	50 - 150	
Copper Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Lithium Dissolved	mg/L	0.001	0.0011	108.0	50 - 150	
Lead Dissolved	mg/L	0.001	0.001	104.0	50 - 150	
Manganese Dissolved	mg/L	0.001	0.0011	105.0	50 - 150	
Selenium Dissolved	mg/L	0.005	0.0051	102.0	50 - 150	
Silver Dissolved	mg/L	0.001	0.001	100.0	50 - 150	
Strontium Dissolved	mg/L	0.001	0.001	104.0	50 - 150	
Thallium Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Zinc Dissolved	mg/L	0.001	0.0011	110.0	50 - 150	

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497003, Q2449497004
Analysis Method: E200.8, ICP-MS

Laboratory Reagent Blank(2169954)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Dissolved	mg/L	<0.00500	0.005	0.002	
Antimony Dissolved	mg/L	<0.00100	0.001	0.0004	
Arsenic Dissolved	mg/L	<0.00100	0.001	0.0004	
Barium Dissolved	mg/L	<0.00100	0.001	0.0004	
Beryllium Dissolved	mg/L	<0.00100	0.001	0.0004	
Cadmium Dissolved	mg/L	<0.00100	0.001	0.0004	
Chromium Dissolved	mg/L	<0.00100	0.001	0.0004	
Copper Dissolved	mg/L	<0.00100	0.001	0.0004	
Lithium Dissolved	mg/L	<0.00200	0.002	0.0007	
Lead Dissolved	mg/L	<0.00100	0.001	0.0004	
Manganese Dissolved	mg/L	<0.00100	0.001	0.0004	
Selenium Dissolved	mg/L	<0.00500	0.005	0.002	
Silver Dissolved	mg/L	<0.00100	0.001	0.0004	
Strontium Dissolved	mg/L	<0.00100	0.001	0.0004	
Thallium Dissolved	mg/L	<0.00100	0.001	0.0004	
Zinc Dissolved	mg/L	<0.00500	0.005	0.002	

Laboratory Fortified Matrix (2169957); Lab Fortified Matrix Duplicate (2169958); Original: Q2450869007

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Dissolved	mg/L	0.05	0.0504	101.0	70 - 130	0.0576	115.0	13.0	20	
Antimony Dissolved	mg/L	0.05	0.0454	90.9	70 - 130	0.0482	96.5	5.98	20	
Arsenic Dissolved	mg/L	0.05	0.0486	97.1	70 - 130	0.0503	101.0	3.94	20	
Barium Dissolved	mg/L	0.05	0.064	94.0	70 - 130	0.0662	98.5	4.68	20	
Beryllium Dissolved	mg/L	0.05	0.0442	88.4	70 - 130	0.0466	93.1	5.18	20	
Cadmium Dissolved	mg/L	0.05	0.0457	91.4	70 - 130	0.0482	96.3	5.22	20	
Chromium Dissolved	mg/L	0.05	0.0442	88.5	70 - 130	0.047	94.1	6.13	20	
Copper Dissolved	mg/L	0.05	0.066	84.7	70 - 130	0.0689	90.7	6.84	20	
Lithium Dissolved	mg/L	0.05	0.0835	83.0	70 - 130	0.0865	89.0	6.98	20	
Lead Dissolved	mg/L	0.05	0.0501	100.0	70 - 130	0.0519	104.0	3.92	20	
Manganese Dissolved	mg/L	0.05	0.05	90.9	70 - 130	0.0525	95.9	5.35	20	
Selenium Dissolved	mg/L	0.25	0.231	92.4	70 - 130	0.242	96.7	4.55	20	
Silver Dissolved	mg/L	0.05	0.0285	57.0	70 - 130	0.0303	60.6	6.12	20	SL
Strontium Dissolved	mg/L	0.05	0.284	79.1	70 - 130	0.298	106.0	29.1	20	R
Thallium Dissolved	mg/L	0.05	0.0489	97.8	70 - 130	0.0508	102.0	4.2	20	
Zinc Dissolved	mg/L	0.05	0.07	87.6	70 - 130	0.0736	94.9	8.0	20	

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2449497003, Q2449497004
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2169955); Lab Fortified Blank Duplicate (2169956)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Dissolved	mg/L	0.05	0.0525	105.0	85 - 115	0.0543	109.0	3.74	20	
Antimony Dissolved	mg/L	0.05	0.05	100.0	85 - 115	0.0496	99.1	0.904	20	
Arsenic Dissolved	mg/L	0.05	0.0497	99.4	85 - 115	0.0499	99.9	0.502	20	
Barium Dissolved	mg/L	0.05	0.0524	105.0	85 - 115	0.0518	104.0	0.957	20	
Beryllium Dissolved	mg/L	0.05	0.0488	97.6	85 - 115	0.0506	101.0	3.42	20	
Cadmium Dissolved	mg/L	0.05	0.0496	99.2	85 - 115	0.0497	99.5	0.302	20	
Chromium Dissolved	mg/L	0.05	0.0489	97.7	85 - 115	0.049	98.1	0.409	20	
Copper Dissolved	mg/L	0.05	0.0511	102.0	85 - 115	0.051	102.0	0.0	20	
Lithium Dissolved	mg/L	0.05	0.0477	95.4	85 - 115	0.0504	101.0	5.7	20	
Lead Dissolved	mg/L	0.05	0.0497	99.3	85 - 115	0.0506	101.0	1.7	20	
Manganese Dissolved	mg/L	0.05	0.0496	99.2	85 - 115	0.0502	100.0	0.803	20	
Selenium Dissolved	mg/L	0.25	0.249	99.6	85 - 115	0.251	100.0	0.401	20	
Silver Dissolved	mg/L	0.05	0.05	100.0	85 - 115	0.0497	99.4	0.602	20	
Strontium Dissolved	mg/L	0.05	0.0528	106.0	85 - 115	0.0505	101.0	4.83	20	
Thallium Dissolved	mg/L	0.05	0.0491	98.3	85 - 115	0.0501	100.0	1.71	20	
Zinc Dissolved	mg/L	0.05	0.0524	105.0	85 - 115	0.053	106.0	0.948	20	

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Quality Control Results

QC Batch: MET/10728
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2449497003
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2171827)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Strontium Dissolved	mg/L	0.001	0.0009	94.8	50 - 150	

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Quality Control Results

QC Batch: MET/10730
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2171975)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Iron Total	mg/L	0.05	0.0521	104.0	50 - 150	

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Quality Control Results

QC Batch: MET/10733 **Analysis Method:** 245.1Hg
Preparation Method: 245.1Hg
Associated Lab IDs: Q2449497001, Q2449497002, Q2449497003, Q2449497004

Laboratory Fortified Matrix (2173283); Lab Fortified Matrix Duplicate (2173284); Original: Q2449846006

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.002	97.8	70 - 130	0.002	97.5	0.307	20	

Laboratory Fortified Matrix (2173279); Lab Fortified Matrix Duplicate (2173280); Original: Q2449307012

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.0019	96.3	70 - 130	0.0019	97.2	0.93	20	

Method Reporting Limit Check (2173275)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Mercury Total	mg/L	0.0002	0.0002	86.0	50 - 150	

Laboratory Reagent Blank(2173276)

Parameter	Units	Results	MRL	LOD	Qualifier
Mercury Total	mg/L	<0.00020	0.0002	0.0002	

Laboratory Fortified Blank (2173277); Lab Fortified Blank Duplicate (2173278)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.002	98.2	85 - 115	0.002	97.4	0.818	20	

Laboratory Reagent Blank(2173436)

Parameter	Units	Results	MRL	LOD	Qualifier
Mercury Total	mg/L	<0.00020	0.0002	0.0002	

Laboratory Fortified Blank (2173437); Lab Fortified Blank Duplicate (2173438)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.0019	96.6	85 - 115	0.0019	96.3	0.311	20	

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Quality Control Results

QC Batch: MET/10741
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2449497002, Q2449497003, Q2449497004
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2175160)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Sodium Dissolved	mg/L	0.2	0.21	105.0	50 - 150	
Sodium Total	mg/L	0.2	0.21	105.0	50 - 150	

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Quality Control Results

QC Batch: WET/31760
Preparation Method: SM2510B, Conductivity @ 25°C
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: SM2510B, Conductivity @ 25°C

Lab Control Sample (2164591)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Specific Conductance	umho/cm	1000.0	1020.0	102.0	70 - 130	

Duplicate (2164595); Original Q2449372001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Specific Conductance	umho/cm	561.2	556.6	0.823	20	

Lab Control Sample (2164594)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Specific Conductance	umho/cm	1000.0	1020.0	101.0	70 - 130	

Method Blank(2164596)

Parameter	Units	Results	MRL	LOD	Qualifier
Specific Conductance	umho/cm	<10.0	10.0	10.0	

Duplicate (2164592); Original Q2449076010

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Specific Conductance	umho/cm	650.5	584.6	10.7	20	

Method Blank(2164593)

Parameter	Units	Results	MRL	LOD	Qualifier
Specific Conductance	umho/cm	<10.0	10.0	10.0	

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Quality Control Results

QC Batch: WET/31761
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: E300.0, Anions

Laboratory Reagent Blank(2165265)

Parameter	Units	Results	MRL	LOD	Qualifier
Bromide	mg/L	<0.0100	0.01	0.005	
Chloride	mg/L	<1.00	1.0	0.5	
Fluoride	mg/L	<0.0100	0.01	0.005	
Nitrite (as N)	mg/L	<0.0100	0.01	0.005	
Nitrate (as N)	mg/L	<0.0100	0.01	0.005	
Sulfate	mg/L	<1.00	1.0	0.5	

Laboratory Fortified Blank (2165266)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	3.0	2.86	95.4	90 - 110	
Chloride	mg/L	60.0	58.1	96.8	90 - 110	
Fluoride	mg/L	3.0	2.9	96.7	90 - 110	
Nitrite (as N)	mg/L	3.0	2.94	98.1	90 - 110	
Nitrate (as N)	mg/L	3.0	2.9	96.6	90 - 110	
Sulfate	mg/L	60.0	57.8	96.4	90 - 110	

Method Reporting Limit Check (2164638)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	0.01	0.0084	84.0	50 - 150	
Chloride	mg/L	1.0	0.71	71.0	50 - 150	
Fluoride	mg/L	0.01	0.0125	125.0	50 - 150	
Nitrite (as N)	mg/L	0.01	0.0123	123.0	50 - 150	
Nitrate (as N)	mg/L	0.01	0.0087	87.0	50 - 150	
Sulfate	mg/L	1.0	0.749	74.9	50 - 150	

Limit of Quantitation Check (2164640)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	0.02	0.0212	106.0	70 - 130	
Chloride	mg/L	5.0	4.03	80.6	70 - 130	
Fluoride	mg/L	0.02	0.0205	102.0	70 - 130	
Nitrite (as N)	mg/L	0.02	0.0226	113.0	70 - 130	
Nitrate (as N)	mg/L	0.02	0.0182	91.0	70 - 130	
Sulfate	mg/L	5.0	3.95	79.1	70 - 130	

Laboratory Reagent Blank(2164636)

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Quality Control Results

QC Batch: WET/31761
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: E300.0, Anions

Parameter	Units	Results	MRL	LOD	Qualifier
Bromide	mg/L	<0.0100	0.01	0.005	
Chloride	mg/L	<1.00	1.0	0.5	
Fluoride	mg/L	<0.0100	0.01	0.005	
Nitrite (as N)	mg/L	<0.0100	0.01	0.005	
Nitrate (as N)	mg/L	<0.0100	0.01	0.005	
Sulfate	mg/L	<1.00	1.0	0.5	

Laboratory Fortified Blank (2164639)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	3.0	3.0	100.0	90 - 110	
Chloride	mg/L	60.0	61.4	102.0	90 - 110	
Fluoride	mg/L	3.0	3.02	101.0	90 - 110	
Nitrite (as N)	mg/L	3.0	3.0	99.9	90 - 110	
Nitrate (as N)	mg/L	3.0	3.1	103.0	90 - 110	
Sulfate	mg/L	60.0	61.0	102.0	90 - 110	

Laboratory Fortified Matrix (2165267); Lab Fortified Matrix Duplicate (2165268); Original: Q2449656003

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Bromide	mg/L	3.0	3.22	99.1	80 - 120	3.22	99.1			
Chloride	mg/L	60.0	111.0	90.0	80 - 120	111.0	90.0	0.0	20	
Fluoride	mg/L	3.0	3.76	97.7	80 - 120	3.76	97.7	0.0	20	
Nitrite (as N)	mg/L	3.0	3.11	104.0	80 - 120	3.12	104.0	0.0	20	
Nitrate (as N)	mg/L	3.0	3.04	101.0	80 - 120	3.04	101.0	0.0	20	
Sulfate	mg/L	60.0	156.0	76.1	80 - 120	156.0	76.1	0.0	20	SL

Laboratory Fortified Matrix (2164641); Lab Fortified Matrix Duplicate (2164642); Original: Q2449497001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Bromide	mg/L	3.0	6.12	99.3	80 - 120	5.97	94.4			
Chloride	mg/L	60.0	676.0	-551.0	80 - 120	677.0	-549.0	-0.364	20	SL
Fluoride	mg/L	3.0	2.79	68.8	80 - 120	2.81	69.4	0.868	20	SL
Nitrite (as N)	mg/L	3.0	3.11	104.0	80 - 120	3.03	101.0	2.93	20	
Nitrate (as N)	mg/L	3.0	3.09	103.0	80 - 120	3.1	103.0	0.0	20	
Sulfate	mg/L	60.0	64.0	101.0	80 - 120	64.1	102.0	0.985	20	

Duplicate (2166074); Original Q2449497001

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Quality Control Results

QC Batch: WET/31761
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: E300.0, Anions

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Bromide	mg/L	3.1426	2.806	11.3		
Chloride	mg/L	1006.671	852.664	16.6		
Fluoride	mg/L	.729	0.578	23.1		
Nitrite (as N)	mg/L	0	0.0	0.0		
Nitrate (as N)	mg/L	0	0.0	0.0		
Sulfate	mg/L	3.1672	2.866	9.98		

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Quality Control Results

QC Batch: WET/31761
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2449497002
Analysis Method: E300.0, Anions

Duplicate (2166075); Original Q2449497002

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Chloride	mg/L	706.656	567.74	21.8		
Fluoride	mg/L	.462	0.0	200.0		

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Quality Control Results

QC Batch: WET/31763
Preparation Method: SM2320B, Alkalinity
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: SM2320B, Alkalinity

Lab Control Sample (2164760)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	100.0	98.3	98.3	90 - 110	

Method Reporting Limit Check (2164758)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	20.0	22.3	111.0	50 - 150	

Limit of Quantitation Check (2164757)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	20.0	21.9	110.0	70 - 130	

Duplicate (2164762); Original Q2449338001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Total Alkalinity (CaCO3)	mg/L	131.12	130.48	0.489	20	

Lab Control Sample (2164764)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	100.0	100.0	100.0	90 - 110	

Method Blank(2164761)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Alkalinity (CaCO3)	mg/L	<20.0	20.0	20.0	

Method Blank(2164765)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Alkalinity (CaCO3)	mg/L	<20.0	20.0	20.0	

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Quality Control Results

QC Batch: WET/31776
Preparation Method: SM4500-H+B, pH @ 25°C
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: SM4500-H+B, pH @ 25°C

Duplicate (2166284); Original Q2449452001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
pH	pH	7.8	8.27	5.85	20	
Temperature	C	22.43	22.38	0.223		

QC Sample Comments

Duplicate - 2166284

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

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Quality Control Results

QC Batch: WET/31778
Preparation Method: SM2540C, TDS
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: SM2540C, TDS

Matrix Spike (2166347); Original: Q2449076005

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Dissolved Solids(TDS)	mg/L	400.0	690.0	101.0	70 - 130	

Duplicate (2166346); Original Q2449076005

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Total Dissolved Solids(TDS)	mg/L	285	288.0	1.05	20	

Method Blank(2166344)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Dissolved Solids(TDS)	mg/L	<25.0	25.0	10.0	

Lab Control Sample (2166345)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Dissolved Solids(TDS)	mg/L	400.0	390.0	97.5	80 - 120	

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Quality Control Results

QC Batch: WET/31789
Preparation Method: E335.4 CN, SemiAuto Col
Associated Lab IDs: Q2449497001
Analysis Method: E335.4 CN, SemiAuto Col

Laboratory Fortified Blank (2166738); Lab Fortified Blank Duplicate (2166739)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Cyanide, Total	mg/L	0.4	0.384	96.0	90 - 110	0.389	97.2	1.24	20	

Laboratory Fortified Matrix (2166740); Original: Q2448694007

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Cyanide, Total	mg/L	0.4	0.429	89.9	90 - 110	SL

Laboratory Reagent Blank(2166737)

Parameter	Units	Results	MRL	LOD	Qualifier
Cyanide, Total	mg/L	<0.0200	0.02	0.005	

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Quality Control Results

QC Batch: WET/31789
Preparation Method: E335.4 CN, SemiAuto Col
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: E335.4 CN, SemiAuto Col

Method Reporting Limit Check (2166972)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Cyanide, Total	mg/L	0.02	0.0153	76.6	50 - 150	

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Quality Control Results

QC Batch: WET/31789
Preparation Method: E335.4 CN, SemiAuto Col
Associated Lab IDs: Q2449497002
Analysis Method: E335.4 CN, SemiAuto Col

Laboratory Fortified Matrix (2166744); Original: Q2449497002

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Cyanide, Total	mg/L	0.4	0.33	82.5	90 - 110	SL

Laboratory Reagent Blank(2166741)

Parameter	Units	Results	MRL	LOD	Qualifier
Cyanide, Total	mg/L	<0.0200	0.02	0.005	

Laboratory Fortified Blank (2166742); Lab Fortified Blank Duplicate (2166743)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Cyanide, Total	mg/L	0.4	0.366	91.5	90 - 110	0.37	92.4	0.979	20	

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Quality Control Results

QC Batch: WET/31818
Preparation Method: SM4500-SiO2-C, Silica
Associated Lab IDs: Q2449497001, Q2449497002
Analysis Method: SM4500-SiO2-C, Silica

Matrix Spike (2168904); Matrix Spike Duplicate (2168905); Original: Q2449497001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	19.6	50.4	80 - 120	19.7	51.6	2.35	20	SL

Limit of Quantitation Check (2168892)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	0.5	0.59	118.0	70 - 130	

Method Blank(2168906)

Parameter	Units	Results	MRL	LOD	Qualifier
Silica as SiO2, Dissolved	mg/L	<0.500	0.5	0.2	

Lab Control Sample (2168893)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	10.4	104.0	90 - 110	

Method Blank(2168889)

Parameter	Units	Results	MRL	LOD	Qualifier
Silica as SiO2, Dissolved	mg/L	<0.500	0.5	0.2	

Lab Control Sample (2168907)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	10.4	104.0	90 - 110	

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
MET/10709 - E200.7 Metals, Trace Elements			
Q2449497002	WELL 3	MEP/14030	E200.7 Prep
MET/10713 - E200.7 Metals, Trace Elements			
Q2449497001	WELL 7	MEP/14028	E200.7 Prep
MET/10715 - E200.8, ICP-MS			
Q2449497002	WELL 3	MEP/14031	E200.8, ICP-MS Prep
MET/10716 - E200.7 Metals, Trace Elements			
Q2449497003	WELL 7 DISSOLVED	MEP/14041	E200.7 Prep
Q2449497004	WELL 3 DISSOLVED	MEP/14041	E200.7 Prep
MET/10722 - E200.8, ICP-MS			
Q2449497001	WELL 7	MEP/14029	E200.8, ICP-MS Prep
MET/10724 - E200.8, ICP-MS			
Q2449497001	WELL 7	MEP/14029	E200.8, ICP-MS Prep
MET/10725 - E200.8, ICP-MS			
Q2449497002	WELL 3	MEP/14031	E200.8, ICP-MS Prep
MET/10727 - E200.8, ICP-MS			
Q2449497003	WELL 7 DISSOLVED	MEP/14052	E200.8, ICP-MS Prep
Q2449497004	WELL 3 DISSOLVED	MEP/14052	E200.8, ICP-MS Prep
MET/10728 - E200.8, ICP-MS			
Q2449497003	WELL 7 DISSOLVED	MEP/14052	E200.8, ICP-MS Prep
MET/10730 - E200.7 Metals, Trace Elements			
Q2449497001	WELL 7	MEP/14028	E200.7 Prep
MET/10733 - 245.1Hg			
Q2449497001	WELL 7		
Q2449497002	WELL 3		
Q2449497003	WELL 7 DISSOLVED		
Q2449497004	WELL 3 DISSOLVED		
MET/10741 - E200.7 Metals, Trace Elements			
Q2449497002	WELL 3	MEP/14030	E200.7 Prep
Q2449497003	WELL 7 DISSOLVED	MEP/14041	E200.7 Prep
Q2449497004	WELL 3 DISSOLVED	MEP/14041	E200.7 Prep
WET/31760 - SM2510B, Conductivity @ 25°C			
Q2449497001	WELL 7		
Q2449497002	WELL 3		

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WET/31761 - E300.0, Anions			
Q2449497001	WELL 7		
Q2449497002	WELL 3		
WET/31763 - SM2320B, Alkalinity			
Q2449497001	WELL 7		
Q2449497002	WELL 3		
WET/31776 - SM4500-H+B, pH @ 25°C			
Q2449497001	WELL 7		
Q2449497002	WELL 3		
WET/31778 - SM2540C, TDS			
Q2449497001	WELL 7		
Q2449497002	WELL 3		
WET/31789 - E335.4 CN, SemiAuto Col			
Q2449497001	WELL 7	WETP/7421	E335.4 CN, SemiAuto Col
Q2449497002	WELL 3	WETP/7421	E335.4 CN, SemiAuto Col
WET/31818 - SM4500-SiO2-C, Silica			
Q2449497001	WELL 7		
Q2449497002	WELL 3		

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Request for Analysis Chain-of-Custody Record

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Fax: (512) 730-6021
https://els.lcra.org

Lab ID#: 02449497 (97)
Client PO:

Project:	THG BGE-POID	Client:	THORNHILL GROUP, INC.
Collector:	Eric Seeger	Contact:	ERIC SEEGER
Event#:	1733866	Phone:	(512) 244-2172

Report to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

Invoice to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

	Sample ID *	Collected Date*	Collected Time HH:MM*	Matrix* (AQ = Aqueous, DW = Drinking Water, S = Solid, T = Tissue)	COMPOSITE Y/N	FILTERED Y/N	Containers: 1LPNOH	1LPU	250PHNO3	500PU					Requested Analysis *: 1030EBAL	200.7DM	200.7DML	200.8DM	200.8DML	2320-DM	2340-HRD+A	245.1Hg	245.1Hg-DL	2510-DU	2540-DMTDS	300.0DM-48
1	Well 7	11/18/24	16:20	DW			1	1	1	1					X	X		X		X	X	X		X	X	X
2	Well 7 DISSOLVED	11/18/24	16:20	DW					1								X		X				X			
3	Well 3	11/19/24	10:30	DW			1	1	1	1					X	X		X		X	X	X		X	X	X
4	Well 3 DISSOLVED	11/19/24	10:30	DW					1								X		X				X			
5				DW			1	1	1	1					X	X		X		X	X	X		X	X	X
6	DISSOLVED			DW					1								X		X				X			

Transfers	Relinquished By	Date/Time	Received By	Date/Time	Cooler Temp (°C): T#	Obs	CF	Corr
1	Eric Seeger	11/19/24 16:39	[illegible]	11/19/24 1639	T6	3.0	0.0	3.0
2								
3								

Client Special Instructions:

Note: Relinquishing sample(s) and signing the COC, client agrees to accept and is bound by the ELS Standard Terms and Conditions. All fie an asterisk (*) are required to be completed.

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673557

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Lab ID#: ~~R114477~~ 97 11/19/24
Client PO:

Project:	THG BGE-POID	**Client:**	THORNHILL GROUP, INC.
Collector:		**Contact:**	ERIC SEEGER
Event#:	1733866	**Phone:**	(512) 244-2172

Report to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

Invoice to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

	Sample ID *	Collected Date*	Collected Time HH:MM*	Matrix* (AQ = Aqueous, DW = Drinking Water, S = Solid, T = Tissue)	COMPOSITE Y/N	FILTERED Y/N	Containers: 1LPNOH	1LPU	250PHNO3	500PU					Requested Analysis *: 335.4WM	4500-DM-Si	4500-DP-PH								
1	Well 7	11/18/24	16:20	DW			1	1	1	1					X	X	X								
2	Well 7 DISSOLVED	11/18/24	16:20	DW					1																
3	Well 3	11/19/24	10:30	DW			1	1	1	1					X	X	X								
4	Well 3 DISSOLVED	11/19/24	10:30	DW					1																
5				DW			1	1	1	1					X	X	X								
6	DISSOLVED			DW					1																

Transfers	Relinquished By	Date/Time	Received By	Date/Time
1	Eric Seeger	11/19/24 16:39	MLC	11/19/24 1639
2				
3				

Cooler Temp (°C):	T#	Obs	CF	Corr
	FB	3.0	0.0	3.0

Client Special Instructions:

Lab Use Only:

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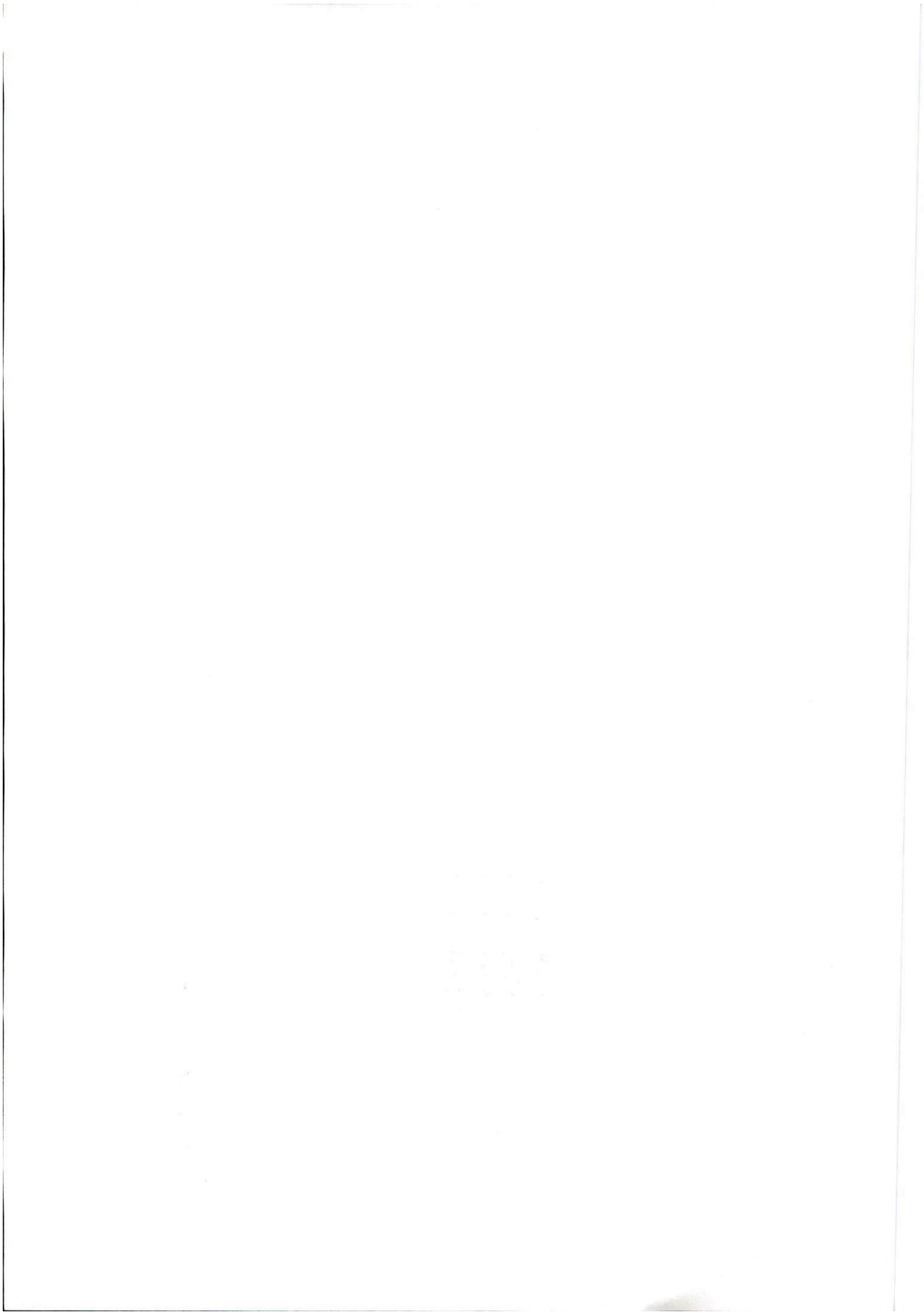
Phone (512)730-6022
Fax (512)730-6021



End of Report

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

February 24, 2025

ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768
ESeeger@tgi-water.com

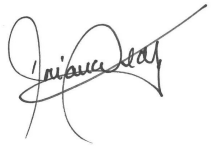
RE: Final Analytical Report Q2449500

Attn: ERIC SEEGER

Enclosed are the analytical results for sample(s) received by LCRA Environmental Laboratory Services. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This final report provides results related only to the sample(s) as received for the above referenced work order.

Thank you for selecting ELS for your analytical needs. If you have any questions regarding this report, please contact us at (512) 730-6022 or environmental.lab@lcra.org. We look forward to assisting you again.

Authorized for release by:



Ariana Dean
Account Manager
ariana.dean@lcra.org

Enclosures:

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder: Q2449500
Workorder Description: THGBGE-POIDSUB_11202024
Client: THORNHILL GROUP, INC.
Profile: BGE-POID
Sampled By: ERIC SEAGER

Report To: ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported
Q2449500001	WELL 7	DW	SM2130B, Turbidity	11/18/2024 16:20	11/19/2024 16:39	1
Q2449500002	WELL 3	DW	SM2130B, Turbidity	11/19/2024 10:30	11/19/2024 16:39	1

Report Definitions

MRL - Minimum Reporting Limit
LOD - Limit of Detection
ML - Maximum Limit - Client Specified
MCL - Maximum Contaminant Level
LOQ - Limit of Quantitation - Client Specified
DF - Dilution Factor
(S) - Surrogate Spike
MDL - Method Detection Limit
RPD - Relative Percent Difference

Qualifier Definitions

J - Analyte detected below quantitation limit
R - RPD outside duplicate precision limit
S - Spike recovery outside limit
B- Analyte detected in method blank
N - Not Accredited
M - Analyte Detected Above Maximum Contaminant Level
SL - Spike Recovery Low
SH - Spike Recovery High
H - Analyzed Past Hold Time
CR - Confirmed Result
CH - Result confirmed by historical data

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder Summary

Sample Comments

Q2449500001 (WELL 7) - Paying sample

ANALYTICAL COMMENTS: Q2449500001 (SM2130B, Turbidity) subcontracted with customer's approval. Data provided in full with the ELS final report.

Q2449500002 (WELL 3) - Paying sample

ANALYTICAL COMMENTS: Q2449500002 (SM2130B, Turbidity) subcontracted with customer's approval. Data provided in full with the ELS final report.

LCRA Environmental Laboratory Services
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Austin, TX 78744
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Fax (512)730-6021

Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/18/2024 16:20	**Matrix:**	Drinking Water
Lab ID:	Q2449500001	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 7	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

SM2130B, Turbidity has been subcontracted. See attached Subcontract Report.

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/19/2024 10:30	**Matrix:**	Drinking Water
Lab ID:	Q2449500002	**Date Received:**	11/19/2024 16:39	**Sample Type:**	SAMPLE
Sample ID:	WELL 3	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

SM2130B, Turbidity has been subcontracted. See attached Subcontract Report.

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Email information for report date:
11/26/24 12:01

H038074

LCRA

Attn: ELS
envlab@lcra.org

3505 Montopolis
Austin, TX 78744

Please contact us for your sampling needs or if you have any questions. Some convenient contacts are listed below. You can also access your results and reports through our ClientConnect ™ portal on our website (www.aqua-techlabs.com).

For sampling questions:

samplingbryan@aqua-techlabs.com (Bryan area)
samplingaustin@aqua-techlabs.com (Austin area)

reporting@aqua-techlabs.com (report questions)

Aqua-Tech values you as a customer and encourages you to speak with our staff at 979-778-3707 or the above emails if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

Certificate: TX-C24-00311

TCEQ Lab ID T104704371

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

corp@aqua-techlabs.com www.aqua-techlabs.com

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

LCRA

Report Printed: **11/26/24** **12:01**

H038074

LCRA Q2449500001

Collected: 11/18/24 16:20 by CLIENT
Received: 11/20/24 08:36 by Ana Garza

Type: Grab
Matrix: Drinking Water
C-O-C #: H038074

Lab ID# H038074-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Turbidity	**5.5**	NTU		0.2	0.2	1.0	*Austin*	11/20/24 10:56 BEB	SM2130 B 2011	M185725	*DWP*

LCRA Q2449500002

Collected: 11/19/24 10:30 by CLIENT
Received: 11/20/24 08:36 by Ana Garza

Type: Grab
Matrix: Drinking Water
C-O-C #: H038074

Lab ID# H038074-02	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Turbidity	**1.0**	NTU		0.2	0.2	1.0	*Austin*	11/20/24 10:56 BEB	SM2130 B 2011	M185725	*DWP*

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Turbidity - SM2130 B 2011														*Austin*
Initial Cal Check	1.4	NTU				09/18/24 07:50 MSA	1.34		104	90 - 110			2409216	
Initial Cal Check	1.4	NTU				11/20/24 10:56 BEB	1.34		104	90 - 110			2411252	
Blank	<1.0	NTU		0.2	1.0	11/20/24 10:56 BEB							M185725	
Duplicate	1.0	NTU		0.2	1.0	11/20/24 10:56 BEB		1.0			5.13	13.5	M185725	
MRL Check	1.3	NTU		0.2	1.0	11/20/24 10:56 BEB	1.02		129	70 - 130			M185725	

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H038074-01										
Turbidity	SM2130 B 2011	11/20/24 10:56 BEB	Austin	A	10.0	mL	10.0	mL	1	M185725
H038074-02										
Turbidity	SM2130 B 2011	11/20/24 10:56 BEB	Austin	A	10.0	mL	10.0	mL	1	M185725

Form: C:\ELMNT\FORMAT\ATL 090124 FIN_LS.RPT

Page 3 of 4 H038074_1 ATL 090124 FIN_ls 11 26 24 1201

LCRA Chain of Custody

H038074

Document: 45548112 - HBN 161084

Results Requested By: Pg 1 of 2

Report To	Subcontract To
LCRA Environmental Laboratory Services 3505 Montopolis Drive Austin, TX 78744 Phone (512)730-6022 Fax (512)730-6021 Email environmental.lab@lcra.org	AQUATECH LABORATORIES AQUATECH LABORATORIES 3512 MONTOPOLIS DR Austin, TX 78744 Phone 512-301-9559

Item	Lab ID	Collect Date/Time		Matrix	Preserved Containers: COOL 4C	Requested Analysis: SM2130B, Turbidity	LAB USE ONLY
1	Q2449500001	11/18/2024 16:20		Drinking Water	1	X	H038074-01A
2	Q2449500002	11/19/2024 10:30		Drinking Water	1	X	-02A

Report

- ☐ Standard (Results Only)
- ☐ Standard with Batch QC
- ☐ CLP
- ☐ Other ______

Electronic Data Deliverables

- ☐ Stage 2A
- ☐ Stage 2B
- ☐ Stage 3
- ☐ Other ______

Comments

THE SUBCONTRACTOR NOTED ON THIS COC IS THE ONLY LAB AUTHORIZED TO ANALYZE THE SUBMITTED SAMPLES. ANY DEVIATION FROM THIS PROTOCOL REQUIRES WRITTEN AUTHORIZATION FROM ELS MANAGEMENT.

Preservative

COOL 4C = Cool to <=4 degrees C

Thermometer 07604480
1.3/1.3°C CT
CLT Cooler <AC67

Transfers	Released By	Date/Time	Received By	Date/Time
1	Santiago Ortega	11/20/24 9:36	Avo Barzo [signature]	11/20/24 0836
2				
3				
4				
5				

NF (ES)

Wednesday, November 20, 2024 3:53:37 PM
Page 1 of 2

HORIZON

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

LCRA Chain of Custody

H038074

Document: 45548112 - HBN 161084

Pg 2 of 2 Qs.

Chain of Custody - Required Limits

Document: 45548112 - HBN 161084

	Method	Analyte	Storet	LOD	RL	MCL	LOQ Check Standard Required?
	SM2130B, Turbidity	Turbidity		.04 NTU	.1 NTU		No

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Subcontracted

LCRA Environmental Laboratory Services

Request for Analysis Chain-of-Custody Record

LCRA - Environmental Lab
3505 Montopolis Dr
Austin, TX 78744

Phone: (512) 730-6022 or 1-800-776-5272
Fax: (512) 730-6021
https://els.lcra.org

Lab ID#: 02449500
Client PO:

Project:	THG BGE-POID SUB	**Client:**	THORNHILL GROUP, INC.
Collector:	Eric Seeger	**Contact:**	ERIC SEEGER
Event#:	1733872	**Phone:**	(512) 244-2172

Report to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

Invoice to: ERIC SEEGER, THORNHILL GROUP, INC., 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

	Sample ID *	Collected: Date*	Collected: Time HH:MM*	Matrix* (AQ = Aqueous, DW = Drinking Water, S = Solid, T = Tissue)	COMPOSITE Y/N	FILTERED Y/N	Containers: 250PU	Requested Analysis *: S-2130-DN
1	Well 7	11/18/24	16:20	DW			1	X
2	Well 3	11/19/24	10:30	DW			1	X
3				DW			1	X

Transfers	Relinquished By	Date/Time	Received By	Date/Time	Cooler Temp (°C): T#	Obs	CF	Corr
1	Eric Seeger	11/19/24 16:39	MEC	11/19/24 1639	T3	3.0	0.0	3.0
2								
3								

Client Special Instructions:

02449500
673560

Note: Relinquishing sample(s) and signing the COC, client agrees to accept and is bound by the ELS Standard Terms and Conditions. All fields wi an asterisk (*) are required to be completed.

Page 1 of 1

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

LCRA Chain of Custody

Document: 45548112 - HBN 161084

Results Requested By:

Report To	Subcontract To
LCRA Environmental Laboratory Services 3505 Montopolis Drive Austin, TX 78744 Phone (512)730-6022 Fax (512)730-6021 Email environmental.lab@lcra.org	AQUATECH LABORATORIES AQUATECH LABORATORIES 3512 MONTOPOLIS DR Austin, TX 78744 Phone 512-301-9559

Item	Lab ID	Collect Date/Time		Matrix	Preserved Containers: COOL 4C	Requested Analysis: SM2130B, Turbidity	LAB USE ONLY
1	Q2449500001	11/18/2024 16:20		Drinking Water	1	X	
2	Q2449500002	11/19/2024 10:30		Drinking Water	1	X	

Report	Electronic Data Deliverables	Comments
☐ Standard (Results Only)	☐ Stage 2A	THE SUBCONTRACTOR NOTED ON THIS COC IS THE ONLY LAB AUTHORIZED TO ANALYZE THE SUBMITTED SAMPLES. ANY DEVIATION FROM THIS PROTOCOL REQUIRES WRITTEN AUTHORIZATION FROM ELS MANAGEMENT.
☐ Standard with Batch QC	☐ Stage 2B	
☐ CLP	☐ Stage 3	
☐ Other ______	☐ Other ______	

Preservative

COOL 4C = Cool to <=4 degrees C

Transfers	Released By	Date/Time	Received By	Date/Time
1	Santiago Ortega	11/20/24 8:36	Aug Bravo [signature]	11/20/24 0834
2				
3				
4				
5				

Wednesday, November 20, 2024 8:53:37 AM
Page 1 of 2

HORIZON

End of Report

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

February 24, 2025

ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768
ESeeger@tgi-water.com

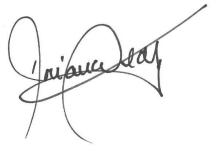
RE: Final Analytical Report Q2450106

Attn: ERIC SEEGER

Enclosed are the analytical results for sample(s) received by LCRA Environmental Laboratory Services. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This final report provides results related only to the sample(s) as received for the above referenced work order.

Thank you for selecting ELS for your analytical needs. If you have any questions regarding this report, please contact us at (512) 730-6022 or environmental.lab@lcra.org. We look forward to assisting you again.

Authorized for release by:



Ariana Dean
Account Manager
ariana.dean@lcra.org

Enclosures:

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder: Q2450106
Workorder Description: THGBGE-POID_11222024
Client: THORNHILL GROUP, INC.
Profile: BGE-POID

Sampled By: ERIC SEEGER

Report To: ERIC SEEGER
THORNHILL GROUP, INC.
1106 S. MAYS ST. STE. 100
Round Rock, TX 78664-6768

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported
Q2450106001	WELL 4	DW	245.1Hg	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	E200.7 Metals, Trace Elements	11/21/2024 13:45	11/22/2024 09:22	5
Q2450106001	WELL 4	DW	E200.8, ICP-MS	11/21/2024 13:45	11/22/2024 09:22	16
Q2450106001	WELL 4	DW	E300.0, Anions	11/21/2024 13:45	11/22/2024 09:22	6
Q2450106001	WELL 4	DW	E335.4 CN, SemiAuto Col	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	SM1030B Cation/Anion Balance	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	SM2320B, Alkalinity	11/21/2024 13:45	11/22/2024 09:22	3
Q2450106001	WELL 4	DW	SM2340B, Hardness Calc.	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	SM2510B, Conductivity @ 25°C	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	SM2540C, TDS	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106001	WELL 4	DW	SM4500-H+B, pH @ 25°C	11/21/2024 13:45	11/22/2024 09:22	2
Q2450106001	WELL 4	DW	SM4500-SiO2-C, Silica	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106002	WELL 4 DISSOLVED	DW	245.1Hg	11/21/2024 13:45	11/22/2024 09:22	1
Q2450106002	WELL 4 DISSOLVED	DW	E200.7 Metals, Trace Elements	11/21/2024 13:45	11/22/2024 09:22	5
Q2450106002	WELL 4 DISSOLVED	DW	E200.8, ICP-MS	11/21/2024 13:45	11/22/2024 09:22	16

Report Definitions

MRL - Minimum Reporting Limit
LOD - Limit of Detection
ML - Maximum Limit - Client Specified
MCL - Maximum Contaminant Level
LOQ - Limit of Quantitation - Client Specified
DF - Dilution Factor
(S) - Surrogate Spike
MDL - Method Detection Limit
RPD - Relative Percent Difference

Qualifier Definitions

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

J - Analyte detected below quantitation limit
R - RPD outside duplicate precision limit
S - Spike recovery outside limit
B- Analyte detected in method blank
N - Not Accredited
M - Analyte Detected Above Maximum Contaminant Level
SL - Spike Recovery Low
SH - Spike Recovery High
H - Analyzed Past Hold Time
CR - Confirmed Result
CH - Result confirmed by historical data

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Workorder Summary

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Analytical Results

Client ID: THORNHILL
Lab ID: Q2450106001
Sample ID: WELL 4
Project ID: BGE-POID

Date Collected: 11/21/2024 13:45
Date Received: 11/22/2024 09:22
Location:
Facility:
Sample Point:

Matrix: Drinking Water
Sample Type: SAMPLE

ALKALINITY (SM2320B, Alkalinity)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bicarbonate Alkalinity	439	mg/L	0.00	0.00		1	11/27/2024 16:18	ML	11/27/2024 16:18	ML	N
Carbonate Alkalinity	0.00	mg/L	0.00	0.00		1	11/27/2024 16:18	ML	11/27/2024 16:18	ML	N
Total Alkalinity (CaCO3)	439	mg/L	20.0	20.0		1	11/27/2024 16:18	ML	11/27/2024 16:18	ML	N

CYANIDE, TOTAL (E335.4 CN, SemiAuto Col)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Cyanide, Total	<0.0200	mg/L	0.0200	0.00500	0.20	1	11/26/2024 16:52	MAB	11/27/2024 00:00	VR	

Conductance @ 25°C (SM2510B, Conductivity @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Specific Conductance	3080	umho/cm	10.0	10.0		1	11/25/2024 13:24	VR	11/25/2024 13:24	VR	

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Total	<0.00020	mg/L	0.00020	0.00020	0.0020	1	12/13/2024 23:40	FO	12/13/2024 23:40	FO	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Total	671	mg/L	1.00	0.350		5	11/26/2024 11:00	TVT	12/11/2024 13:03	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Total	31.1	mg/L	0.200	0.0700		1	11/26/2024 11:00	TVT	12/04/2024 16:40	ML	N
Iron Total	0.117	mg/L	0.0500	0.0200		1	11/26/2024 11:00	TVT	12/04/2024 16:40	ML	
Magnesium Total	19.7	mg/L	0.200	0.0700		1	11/26/2024 11:00	TVT	12/04/2024 16:40	ML	
Potassium Total	9.28	mg/L	0.200	0.0700		1	11/26/2024 11:00	TVT	12/04/2024 16:40	ML	

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/21/2024 13:45	**Matrix:**	Drinking Water
Lab ID:	Q2450106001	**Date Received:**	11/22/2024 09:22	**Sample Type:**	SAMPLE
Sample ID:	WELL 4	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Total	0.0366	mg/L	0.00500	0.00200		1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Antimony Total	<0.00100	mg/L	0.00100	0.000400	0.0060	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Arsenic Total	0.00639	mg/L	0.00100	0.000400	0.01	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Barium Total	0.117	mg/L	0.00100	0.000400	2	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Beryllium Total	<0.00100	mg/L	0.00100	0.000400	0.0040	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Cadmium Total	<0.00100	mg/L	0.00100	0.000400	0.0050	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Chromium Total	<0.00100	mg/L	0.00100	0.000400	0.10	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Copper Total	<0.00100	mg/L	0.00100	0.000400	1	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Lithium Total	0.0447	mg/L	0.00200	0.000700		1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Lead Total	<0.00100	mg/L	0.00100	0.000400	0.0150	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Manganese Total	0.0790	mg/L	0.00100	0.000400		1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Selenium Total	<0.00500	mg/L	0.00500	0.00200	0.05	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Silver Total	<0.00100	mg/L	0.00100	0.000400		1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Thallium Total	<0.00100	mg/L	0.00100	0.000200	0.0020	1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	
Zinc Total	<0.00500	mg/L	0.00500	0.00200		1	11/26/2024 11:00	TVT	12/03/2024 18:35	FO	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Strontium Total	0.527	mg/L	0.00500	0.00200		5	11/26/2024 11:00	TVT	12/04/2024 14:15	FO	N

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Chloride	824	mg/L	10.0	5.00		10	11/22/2024 16:36	MAB	11/22/2024 16:36	MAB	

INORGANICS (E300.0, Anions)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Bromide	2.33	mg/L	0.0100	0.00500		1	11/22/2024 16:16	MAB	11/22/2024 16:16	MAB	
Fluoride	0.258	mg/L	0.0100	0.00500	4	1	11/22/2024 16:16	MAB	11/22/2024 16:16	MAB	
Nitrite (as N)	<0.0100	mg/L	0.0100	0.00500	1	1	11/22/2024 16:16	MAB	11/22/2024 16:16	MAB	
Nitrate (as N)	<0.0100	mg/L	0.0100	0.00500	10	1	11/22/2024 16:16	MAB	11/22/2024 16:16	MAB	
Sulfate	48.1	mg/L	1.00	0.500		1	11/22/2024 16:16	MAB	11/22/2024 16:16	MAB	

INORGANICS (SM1030B Cation/Anion Balance)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Cation/Anion Balance	-0.6500	%				1	02/24/2025 15:09	CW	02/24/2025 15:09	CW	N

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Analytical Results

Client ID:	THORNHILL	**Date Collected:**	11/21/2024 13:45	**Matrix:**	Drinking Water
Lab ID:	Q2450106001	**Date Received:**	11/22/2024 09:22	**Sample Type:**	SAMPLE
Sample ID:	WELL 4	**Location:**			
Project ID:	BGE-POID	**Facility:**			
		Sample Point:			

INORGANICS (SM2340B, Hardness Calc.)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Hardness (as CaCO3)	159	mg/L				1	12/06/2024 14:12	CW	12/06/2024 14:12	CW	N

SILICA (SM4500-SiO2-C, Silica)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Silica as SiO2, Dissolved	14.5	mg/L	0.500	0.200		1	12/02/2024 00:00	VR	12/02/2024 00:00	VR	N

TOTAL DISSOLVED SOLIDS (SM2540C, TDS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Total Dissolved Solids(TDS)	1660	mg/L	50.0	20.0		20	11/23/2024 12:44	JLL	11/23/2024 12:44	JLL	

pH (SM4500-H+B, pH @ 25°C)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
pH	7.71	pH	0.00	0.00		1	12/06/2024 09:41	ML	12/06/2024 09:41	ML	N
Temperature	21.6	C				1	12/06/2024 09:41	ML	12/06/2024 09:41	ML	N

Sample Comments

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

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Analytical Results

Client ID: THORNHILL
Lab ID: Q2450106002
Sample ID: WELL 4 DISSOLVED
Project ID: BGE-POID

Date Collected: 11/21/2024 13:45
Date Received: 11/22/2024 09:22
Location:
Facility:
Sample Point:

Matrix: Drinking Water
Sample Type: SAMPLE

HEAVY METALS (245.1Hg)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Mercury Dissolved	<0.20	ug/L	0.20	0.20	2	1	12/14/2024 00:35	FO	12/14/2024 00:35	FO	N

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Calcium Dissolved	30.6	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 17:07	ML	N
Iron Dissolved	<0.0500	mg/L	0.0500	0.0200		1	11/26/2024 11:53	TVT	12/04/2024 17:07	ML	
Magnesium Dissolved	19.1	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 17:07	ML	
Potassium Dissolved	7.90	mg/L	0.200	0.0700		1	11/26/2024 11:53	TVT	12/04/2024 17:07	ML	

INORGANICS (E200.7 Prep/E200.7 Metals, Trace Elements)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Sodium Dissolved	584	mg/L	0.400	0.140		2	11/26/2024 11:53	TVT	12/12/2024 14:26	ML	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Aluminum Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Antimony Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Arsenic Dissolved	0.00541	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Barium Dissolved	0.116	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Beryllium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Cadmium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Chromium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Copper Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Lithium Dissolved	0.0330	mg/L	0.00200	0.000700		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Lead Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Manganese Dissolved	0.0721	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Selenium Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Silver Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Thallium Dissolved	<0.00100	mg/L	0.00100	0.000400		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	
Zinc Dissolved	<0.00500	mg/L	0.00500	0.00200		1	12/03/2024 16:06	MTH	12/05/2024 13:42	FO	

INORGANICS (E200.8, ICP-MS Prep/E200.8, ICP-MS)

Parameter	Results	Units	MRL	LOD	ML	DF	Prepared	By	Analyzed	By	Qualifier
Strontium Dissolved	0.732	mg/L	0.00500	0.00200		5	12/03/2024 16:06	MTH	12/06/2024 16:35	FO	N

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2450106001
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2169829)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Antimony Total	mg/L	0.001	0.0013	130.0	50 - 150	
Arsenic Total	mg/L	0.001	0.0011	114.0	50 - 150	
Barium Total	mg/L	0.001	0.001	104.0	50 - 150	
Beryllium Total	mg/L	0.001	0.001	102.0	50 - 150	
Cadmium Total	mg/L	0.001	0.0011	109.0	50 - 150	
Chromium Total	mg/L	0.001	0.0012	118.0	50 - 150	
Copper Total	mg/L	0.001	0.0013	134.0	50 - 150	
Lithium Total	mg/L	0.001	0.0014	138.0	50 - 150	
Lead Total	mg/L	0.001	0.001	103.0	50 - 150	
Manganese Total	mg/L	0.001	0.001	102.0	50 - 150	
Selenium Total	mg/L	0.005	0.0051	102.0	50 - 150	
Silver Total	mg/L	0.001	0.001	104.0	50 - 150	
Thallium Total	mg/L	0.001	0.001	103.0	50 - 150	

Method Reporting Limit Check (2169854)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Aluminum Total	mg/L	0.005	0.0053	105.0	50 - 150	
Zinc Total	mg/L	0.005	0.0052	104.0	50 - 150	

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2450106001
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2167536)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Lithium Total	mg/L	0.05	0.0507	101.0	85 - 115	
Strontium Total	mg/L	0.05	0.0488	97.7	85 - 115	

Laboratory Fortified Blank (2167536); Lab Fortified Blank Duplicate (2167537)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0507	101.0	85 - 115	0.0519	104.0	2.93	20	
Antimony Total	mg/L	0.05	0.049	98.0	85 - 115	0.0502	100.0	2.02	20	
Arsenic Total	mg/L	0.05	0.0472	94.4	85 - 115	0.0478	95.6	1.26	20	
Barium Total	mg/L	0.05	0.0459	91.8	85 - 115	0.0463	92.5	0.76	20	
Beryllium Total	mg/L	0.05	0.0493	98.5	85 - 115	0.0509	102.0	3.49	20	
Cadmium Total	mg/L	0.05	0.048	96.0	85 - 115	0.0486	97.1	1.14	20	
Chromium Total	mg/L	0.05	0.0467	93.5	85 - 115	0.0482	96.5	3.16	20	
Copper Total	mg/L	0.05	0.0466	93.2	85 - 115	0.0468	93.5	0.321	20	
Lead Total	mg/L	0.05	0.0478	95.6	85 - 115	0.0467	93.4	2.33	20	
Manganese Total	mg/L	0.05	0.0485	97.0	85 - 115	0.0499	99.8	2.85	20	
Selenium Total	mg/L	0.25	0.233	93.3	85 - 115	0.24	96.2	3.06	20	
Silver Total	mg/L	0.05	0.0466	93.1	85 - 115	0.0468	93.6	0.536	20	
Thallium Total	mg/L	0.05	0.047	94.1	85 - 115	0.0458	91.7	2.58	20	
Zinc Total	mg/L	0.05	0.0486	97.2	85 - 115	0.0486	97.1	0.103	20	

Laboratory Fortified Matrix (2167538); Lab Fortified Matrix Duplicate (2167539); Original: Q2449825001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Total	mg/L	0.05	0.0536	89.7	70 - 130	0.0547	91.8	2.31	20	
Antimony Total	mg/L	0.05	0.0525	105.0	70 - 130	0.0501	100.0	4.88	20	
Arsenic Total	mg/L	0.05	0.0503	101.0	70 - 130	0.0506	101.0	0.0	20	
Barium Total	mg/L	0.05	0.0581	94.1	70 - 130	0.0583	94.5	0.424	20	
Beryllium Total	mg/L	0.05	0.049	97.9	70 - 130	0.0507	101.0	3.12	20	
Cadmium Total	mg/L	0.05	0.0511	102.0	70 - 130	0.0494	98.7	3.29	20	
Chromium Total	mg/L	0.05	0.0451	90.3	70 - 130	0.0447	89.4	1.0	20	
Copper Total	mg/L	0.05	0.0481	93.7	70 - 130	0.0495	96.5	2.94	20	
Lithium Total	mg/L	0.05	0.067	105.0	70 - 130	0.0655	102.0			
Lead Total	mg/L	0.05	0.0488	97.5	70 - 130	0.0478	95.5	2.07	20	
Manganese Total	mg/L	0.05	0.052	97.8	70 - 130	0.0532	100.0	2.22	20	
Selenium Total	mg/L	0.25	0.243	97.1	70 - 130	0.245	98.2	1.13	20	

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Quality Control Results

QC Batch: MET/10722
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2450106001
Analysis Method: E200.8, ICP-MS

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Silver Total	mg/L	0.05	0.0464	92.8	70 - 130	0.0444	88.8	4.41	20	
Strontium Total	mg/L	0.05	0.0906	96.4	70 - 130	0.0904	95.9			
Thallium Total	mg/L	0.05	0.0472	94.4	70 - 130	0.0464	92.7	1.82	20	
Zinc Total	mg/L	0.05	0.0551	99.2	70 - 130	0.0549	98.9	0.303	20	

Laboratory Reagent Blank(2167535)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Total	mg/L	<0.00500	0.005	0.002	
Antimony Total	mg/L	<0.00100	0.001	0.0004	
Arsenic Total	mg/L	<0.00100	0.001	0.0004	
Barium Total	mg/L	<0.00100	0.001	0.0004	
Beryllium Total	mg/L	<0.00100	0.001	0.0004	
Cadmium Total	mg/L	<0.00100	0.001	0.0004	
Chromium Total	mg/L	<0.00100	0.001	0.0004	
Copper Total	mg/L	<0.00100	0.001	0.0004	
Lithium Total	mg/L	<0.00200	0.002	0.0007	
Lead Total	mg/L	<0.00100	0.001	0.0004	
Manganese Total	mg/L	<0.00100	0.001	0.0004	
Selenium Total	mg/L	<0.00500	0.005	0.002	
Silver Total	mg/L	<0.00100	0.001	0.0004	
Strontium Total	mg/L	.0011	0.001	0.0004	
Thallium Total	mg/L	<0.00100	0.001	0.0002	
Zinc Total	mg/L	<0.00500	0.005	0.002	

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Quality Control Results

QC Batch: MET/10724
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2450106001
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2170465)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Strontium Total	mg/L	0.001	0.001	103.0	50 - 150	

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2450106002
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2171089)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Aluminum Dissolved	mg/L	0.005	0.0053	105.0	50 - 150	
Zinc Dissolved	mg/L	0.005	0.0052	104.0	50 - 150	

Method Reporting Limit Check (2171090)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Antimony Dissolved	mg/L	0.001	0.0008	80.1	50 - 150	
Arsenic Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Barium Dissolved	mg/L	0.001	0.0011	108.0	50 - 150	
Beryllium Dissolved	mg/L	0.001	0.0011	107.0	50 - 150	
Cadmium Dissolved	mg/L	0.001	0.001	99.5	50 - 150	
Chromium Dissolved	mg/L	0.001	0.001	102.0	50 - 150	
Copper Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Lithium Dissolved	mg/L	0.001	0.0011	108.0	50 - 150	
Lead Dissolved	mg/L	0.001	0.001	104.0	50 - 150	
Manganese Dissolved	mg/L	0.001	0.0011	105.0	50 - 150	
Selenium Dissolved	mg/L	0.005	0.0051	102.0	50 - 150	
Silver Dissolved	mg/L	0.001	0.001	100.0	50 - 150	
Thallium Dissolved	mg/L	0.001	0.001	103.0	50 - 150	
Zinc Dissolved	mg/L	0.001	0.0011	110.0	50 - 150	

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2450106002
Analysis Method: E200.8, ICP-MS

Laboratory Reagent Blank(2169954)

Parameter	Units	Results	MRL	LOD	Qualifier
Aluminum Dissolved	mg/L	<0.00500	0.005	0.002	
Antimony Dissolved	mg/L	<0.00100	0.001	0.0004	
Arsenic Dissolved	mg/L	<0.00100	0.001	0.0004	
Barium Dissolved	mg/L	<0.00100	0.001	0.0004	
Beryllium Dissolved	mg/L	<0.00100	0.001	0.0004	
Cadmium Dissolved	mg/L	<0.00100	0.001	0.0004	
Chromium Dissolved	mg/L	<0.00100	0.001	0.0004	
Copper Dissolved	mg/L	<0.00100	0.001	0.0004	
Lithium Dissolved	mg/L	<0.00200	0.002	0.0007	
Lead Dissolved	mg/L	<0.00100	0.001	0.0004	
Manganese Dissolved	mg/L	<0.00100	0.001	0.0004	
Selenium Dissolved	mg/L	<0.00500	0.005	0.002	
Silver Dissolved	mg/L	<0.00100	0.001	0.0004	
Strontium Dissolved	mg/L	<0.00100	0.001	0.0004	
Thallium Dissolved	mg/L	<0.00100	0.001	0.0004	
Zinc Dissolved	mg/L	<0.00500	0.005	0.002	

Laboratory Fortified Matrix (2169957); Lab Fortified Matrix Duplicate (2169958); Original: Q2450869007

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Dissolved	mg/L	0.05	0.0504	101.0	70 - 130	0.0576	115.0			
Antimony Dissolved	mg/L	0.05	0.0454	90.9	70 - 130	0.0482	96.5			
Arsenic Dissolved	mg/L	0.05	0.0486	97.1	70 - 130	0.0503	101.0			
Barium Dissolved	mg/L	0.05	0.064	94.0	70 - 130	0.0662	98.5			
Beryllium Dissolved	mg/L	0.05	0.0442	88.4	70 - 130	0.0466	93.1			
Cadmium Dissolved	mg/L	0.05	0.0457	91.4	70 - 130	0.0482	96.3			
Chromium Dissolved	mg/L	0.05	0.0442	88.5	70 - 130	0.047	94.1			
Copper Dissolved	mg/L	0.05	0.066	84.7	70 - 130	0.0689	90.7			
Lithium Dissolved	mg/L	0.05	0.0835	83.0	70 - 130	0.0865	89.0			
Lead Dissolved	mg/L	0.05	0.0501	100.0	70 - 130	0.0519	104.0			
Manganese Dissolved	mg/L	0.05	0.05	90.9	70 - 130	0.0525	95.9			
Selenium Dissolved	mg/L	0.25	0.231	92.4	70 - 130	0.242	96.7			
Silver Dissolved	mg/L	0.05	0.0285	57.0	70 - 130	0.0303	60.6			SL
Strontium Dissolved	mg/L	0.05	0.284	79.1	70 - 130	0.298	106.0			
Thallium Dissolved	mg/L	0.05	0.0489	97.8	70 - 130	0.0508	102.0			
Zinc Dissolved	mg/L	0.05	0.07	87.6	70 - 130	0.0736	94.9			

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Quality Control Results

QC Batch: MET/10727
Preparation Method: E200.8, ICP-MS Prep
Associated Lab IDs: Q2450106002
Analysis Method: E200.8, ICP-MS

Laboratory Fortified Blank (2169955); Lab Fortified Blank Duplicate (2169956)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Aluminum Dissolved	mg/L	0.05	0.0525	105.0	85 - 115	0.0543	109.0	3.74	20	
Antimony Dissolved	mg/L	0.05	0.05	100.0	85 - 115	0.0496	99.1	0.904	20	
Arsenic Dissolved	mg/L	0.05	0.0497	99.4	85 - 115	0.0499	99.9	0.502	20	
Barium Dissolved	mg/L	0.05	0.0524	105.0	85 - 115	0.0518	104.0	0.957	20	
Beryllium Dissolved	mg/L	0.05	0.0488	97.6	85 - 115	0.0506	101.0	3.42	20	
Cadmium Dissolved	mg/L	0.05	0.0496	99.2	85 - 115	0.0497	99.5	0.302	20	
Chromium Dissolved	mg/L	0.05	0.0489	97.7	85 - 115	0.049	98.1	0.409	20	
Copper Dissolved	mg/L	0.05	0.0511	102.0	85 - 115	0.051	102.0	0.0	20	
Lithium Dissolved	mg/L	0.05	0.0477	95.4	85 - 115	0.0504	101.0	5.7	20	
Lead Dissolved	mg/L	0.05	0.0497	99.3	85 - 115	0.0506	101.0	1.7	20	
Manganese Dissolved	mg/L	0.05	0.0496	99.2	85 - 115	0.0502	100.0	0.803	20	
Selenium Dissolved	mg/L	0.25	0.249	99.6	85 - 115	0.251	100.0	0.401	20	
Silver Dissolved	mg/L	0.05	0.05	100.0	85 - 115	0.0497	99.4	0.602	20	
Strontium Dissolved	mg/L	0.05	0.0528	106.0	85 - 115	0.0505	101.0	4.83	20	
Thallium Dissolved	mg/L	0.05	0.0491	98.3	85 - 115	0.0501	100.0	1.71	20	
Zinc Dissolved	mg/L	0.05	0.0524	105.0	85 - 115	0.053	106.0	0.948	20	

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Quality Control Results

QC Batch: MET/10728
Preparation Method: E200.8, ICP-MS
Associated Lab IDs: Q2450106002
Analysis Method: E200.8, ICP-MS

Method Reporting Limit Check (2171827)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Strontium Dissolved	mg/L	0.001	0.0009	94.8	50 - 150	

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Quality Control Results

QC Batch: MET/10730
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2450106001, Q2450106002
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2171975)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Iron Dissolved	mg/L	0.05	0.0521	104.0	50 - 150	
Iron Total	mg/L	0.05	0.0521	104.0	50 - 150	

Method Reporting Limit Check (2171974)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Calcium Dissolved	mg/L	0.2	0.181	90.5	50 - 150	
Magnesium Dissolved	mg/L	0.2	0.207	103.0	50 - 150	
Potassium Dissolved	mg/L	0.2	0.198	98.9	50 - 150	
Calcium Total	mg/L	0.2	0.181	90.5	50 - 150	
Magnesium Total	mg/L	0.2	0.207	103.0	50 - 150	
Potassium Total	mg/L	0.2	0.198	98.9	50 - 150	

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Quality Control Results

QC Batch: MET/10730
Preparation Method: E200.7 Prep
Associated Lab IDs: Q2450106001
Analysis Method: E200.7 Metals, Trace Elements

Laboratory Fortified Blank (2167525); Lab Fortified Blank Duplicate (2167526)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	9.23	92.3	85 - 115	9.09	90.9	1.53	20	
Iron Total	mg/L	1.0	1.03	103.0	85 - 115	1.05	105.0	1.92	20	
Magnesium Total	mg/L	10.0	10.4	104.0	85 - 115	10.3	103.0	0.966	20	
Potassium Total	mg/L	10.0	9.65	96.5	85 - 115	9.64	96.4	0.104	20	
Sodium Total	mg/L	10.0	10.9	109.0	85 - 115	11.0	110.0	0.913	20	

Laboratory Fortified Matrix (2167527); Lab Fortified Matrix Duplicate (2167528); Original: Q2449825001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Total	mg/L	10.0	10.4	97.4	70 - 130	10.3	96.1	1.34	20	
Iron Total	mg/L	1.0	1.06	106.0	70 - 130	1.07	107.0	0.939	20	
Magnesium Total	mg/L	10.0	10.2	102.0	70 - 130	10.2	102.0	0.0	20	
Potassium Total	mg/L	10.0	10.9	100.0	70 - 130	10.8	98.7	1.31	20	
Sodium Total	mg/L	10.0	289.0	74.6	70 - 130	279.0	-23.5	384.0	20	R

Laboratory Reagent Blank(2167524)

Parameter	Units	Results	MRL	LOD	Qualifier
Calcium Total	mg/L	<0.200	0.2	0.07	
Iron Total	mg/L	<0.0500	0.05	0.02	
Magnesium Total	mg/L	<0.200	0.2	0.07	
Potassium Total	mg/L	<0.200	0.2	0.07	
Sodium Total	mg/L	<0.200	0.2	0.07	

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Quality Control Results

QC Batch: MET/10730
Preparation Method: E200.7 Prep
Associated Lab IDs: Q2450106002
Analysis Method: E200.7 Metals, Trace Elements

Laboratory Fortified Matrix (2167784); Lab Fortified Matrix Duplicate (2167785); Original: Q2449959001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Calcium Dissolved	mg/L	10.0	140.0	159.0	70 - 130	138.0	138.0			SH
Iron Dissolved	mg/L	1.0	1.09	100.0	70 - 130	1.12	103.0			
Magnesium Dissolved	mg/L	10.0	48.4	106.0	70 - 130	47.5	96.2			
Potassium Dissolved	mg/L	10.0	21.2	92.4	70 - 130	22.5	106.0			
Sodium Dissolved	mg/L	10.0	524.0	-645.0	70 - 130	545.0	-436.0			SL

Laboratory Fortified Blank (2167780)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Calcium Dissolved	mg/L	10.0	8.88	88.8	85 - 115	
Iron Dissolved	mg/L	1.0	1.04	104.0	85 - 115	
Magnesium Dissolved	mg/L	10.0	10.1	101.0	85 - 115	
Potassium Dissolved	mg/L	10.0	9.95	99.5	85 - 115	
Sodium Dissolved	mg/L	10.0	11.3	113.0	85 - 115	

Laboratory Reagent Blank(2167779)

Parameter	Units	Results	MRL	LOD	Qualifier
Calcium Dissolved	mg/L	<0.200	0.2	0.07	
Iron Dissolved	mg/L	<0.0500	0.05	0.02	
Magnesium Dissolved	mg/L	<0.200	0.2	0.07	
Potassium Dissolved	mg/L	<0.200	0.2	0.07	
Sodium Dissolved	mg/L	<0.200	0.2	0.07	

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Quality Control Results

QC Batch: MET/10738
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2450106001
Analysis Method: E200.7 Metals, Trace Elements

Duplicate (2174919); Original Q2449625001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Sodium Total	mg/L	7.34106	7.8041	6.11	20	

Method Reporting Limit Check (2173905)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Sodium Total	mg/L	0.2	0.194	97.2	50 - 150	

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Quality Control Results

QC Batch: MET/10741
Preparation Method: E200.7 Metals, Trace Elements
Associated Lab IDs: Q2450106002
Analysis Method: E200.7 Metals, Trace Elements

Method Reporting Limit Check (2175160)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Sodium Dissolved	mg/L	0.2	0.21	105.0	50 - 150	

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Quality Control Results

QC Batch: MET/10743
Preparation Method: 245.1Hg
Associated Lab IDs: Q2450106001
Analysis Method: 245.1Hg

Laboratory Fortified Matrix (2176300); Original: Q2449907002

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Mercury Total	mg/L	0.002	0.002	99.0	70 - 130	

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Quality Control Results

QC Batch: MET/10743
Preparation Method: 245.1Hg
Associated Lab IDs: Q2450106001, Q2450106002
Analysis Method: 245.1Hg

Method Reporting Limit Check (2176738)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Mercury Total	mg/L	0.0002	0.0002	96.5	50 - 150	

Laboratory Fortified Matrix (2176302); Lab Fortified Matrix Duplicate (2176303); Original: Q2450106001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.0019	97.2	70 - 130	0.002	98.0	0.82	20	

Laboratory Fortified Blank (2174942); Lab Fortified Blank Duplicate (2174943)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Mercury Total	mg/L	0.002	0.0019	96.1	85 - 115	0.0019	95.9	0.208	20	

Laboratory Reagent Blank(2174941)

Parameter	Units	Results	MRL	LOD	Qualifier
Mercury Total	mg/L	<0.00020	0.0002	0.0002	

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Quality Control Results

QC Batch: WET/31781
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2450106001
Analysis Method: E300.0, Anions

Limit of Quantitation Check (2166655)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	0.02	0.0217	108.0	70 - 130	
Chloride	mg/L	5.0	4.03	80.5	70 - 130	
Fluoride	mg/L	0.02	0.0181	90.5	70 - 130	
Nitrite (as N)	mg/L	0.02	0.0233	116.0	70 - 130	
Nitrate (as N)	mg/L	0.02	0.0185	92.5	70 - 130	
Sulfate	mg/L	5.0	3.94	78.9	70 - 130	

Laboratory Reagent Blank(2166791)

Parameter	Units	Results	MRL	LOD	Qualifier
Bromide	mg/L	<0.0100	0.01	0.005	
Chloride	mg/L	<1.00	1.0	0.5	
Fluoride	mg/L	<0.0100	0.01	0.005	
Nitrite (as N)	mg/L	<0.0100	0.01	0.005	
Nitrate (as N)	mg/L	<0.0100	0.01	0.005	
Sulfate	mg/L	<1.00	1.0	0.5	

Laboratory Reagent Blank(2166651)

Parameter	Units	Results	MRL	LOD	Qualifier
Bromide	mg/L	<0.0100	0.01	0.005	
Fluoride	mg/L	<0.0100	0.01	0.005	
Nitrite (as N)	mg/L	<0.0100	0.01	0.005	
Nitrate (as N)	mg/L	<0.0100	0.01	0.005	
Sulfate	mg/L	<1.00	1.0	0.5	

Laboratory Fortified Blank (2166792)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	3.0	2.91	97.0	90 - 110	
Chloride	mg/L	60.0	58.9	98.2	90 - 110	
Fluoride	mg/L	3.0	2.96	98.5	90 - 110	
Nitrite (as N)	mg/L	3.0	2.97	99.1	90 - 110	
Nitrate (as N)	mg/L	3.0	2.92	97.4	90 - 110	
Sulfate	mg/L	60.0	58.5	97.5	90 - 110	

Laboratory Fortified Matrix (2166793); Lab Fortified Matrix Duplicate (2166794); Original: Q2450154001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Chloride	mg/L	60.0	76.8	96.8	80 - 120	76.8	96.9			

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Quality Control Results

QC Batch: WET/31781
Preparation Method: E300.0, Anions
Associated Lab IDs: Q2450106001
Analysis Method: E300.0, Anions

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Sulfate	mg/L	60.0	77.3	98.4	80 - 120	77.3	98.3			

Method Reporting Limit Check (2166653)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	0.01	0.0099	99.0	50 - 150	
Chloride	mg/L	1.0	0.723	72.3	50 - 150	
Fluoride	mg/L	0.01	0.0108	108.0	50 - 150	
Nitrite (as N)	mg/L	0.01	0.0099	99.0	50 - 150	
Nitrate (as N)	mg/L	0.01	0.0061	61.0	50 - 150	
Sulfate	mg/L	1.0	0.765	76.5	50 - 150	

Laboratory Fortified Blank (2166654)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Bromide	mg/L	3.0	2.98	99.3	90 - 110	
Fluoride	mg/L	3.0	3.02	101.0	90 - 110	
Nitrite (as N)	mg/L	3.0	3.04	101.0	90 - 110	
Nitrate (as N)	mg/L	3.0	3.02	101.0	90 - 110	
Sulfate	mg/L	60.0	60.1	100.0	90 - 110	

Laboratory Fortified Matrix (2166656); Lab Fortified Matrix Duplicate (2166657); Original: Q2450088001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Bromide	mg/L	3.0	2.47	82.4	80 - 120	2.54	84.6	2.63	20	
Fluoride	mg/L	3.0	3.21	100.0	80 - 120	3.21	100.0	0.0	20	
Nitrite (as N)	mg/L	3.0	2.81	93.8	80 - 120	2.81	93.8	0.0	20	
Nitrate (as N)	mg/L	3.0	3.35	111.0	80 - 120	3.35	111.0	0.0	20	
Sulfate	mg/L	60.0	77.4	101.0	80 - 120	77.3	101.0	0.0	20	

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Quality Control Results

QC Batch: WET/31785
Preparation Method: SM2540C, TDS
Associated Lab IDs: Q2450106001
Analysis Method: SM2540C, TDS

Method Blank(2166880)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Dissolved Solids(TDS)	mg/L	<25.0	25.0	10.0	

Lab Control Sample (2166881)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Dissolved Solids(TDS)	mg/L	400.0	391.0	97.8	80 - 120	

Duplicate (2166882); Original Q2449905001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Total Dissolved Solids(TDS)	mg/L	496	501.0	1.0	20	

Matrix Spike (2166883); Original: Q2449905001

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Dissolved Solids(TDS)	mg/L	400.0	904.0	102.0	70 - 130	

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Quality Control Results

QC Batch: WET/31791
Preparation Method: SM2510B, Conductivity @ 25°C
Associated Lab IDs: Q2450106001
Analysis Method: SM2510B, Conductivity @ 25°C

Duplicate (2167138); Original Q2450125012

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
Specific Conductance	umho/cm	664.8	663.1	0.256	20	

Method Blank(2167136)

Parameter	Units	Results	MRL	LOD	Qualifier
Specific Conductance	umho/cm	<10.0	10.0	10.0	

Lab Control Sample (2167139)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Specific Conductance	umho/cm	1000.0	1000.0	100.0	70 - 130	

Lab Control Sample (2167137)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Specific Conductance	umho/cm	1000.0	1000.0	100.0	70 - 130	

Method Blank(2167140)

Parameter	Units	Results	MRL	LOD	Qualifier
Specific Conductance	umho/cm	<10.0	10.0	10.0	

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Quality Control Results

QC Batch: WET/31803
Preparation Method: SM2320B, Alkalinity
Associated Lab IDs: Q2450106001
Analysis Method: SM2320B, Alkalinity

Limit of Quantitation Check (2168179)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	20.0	21.6	108.0	70 - 130	

Method Reporting Limit Check (2168180)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	20.0	21.3	107.0	50 - 150	

Method Blank(2168186)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Alkalinity (CaCO3)	mg/L	<20.0	20.0	20.0	

Lab Control Sample (2168185)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	100.0	100.0	100.0	90 - 110	

Lab Control Sample (2168182)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Total Alkalinity (CaCO3)	mg/L	100.0	102.0	102.0	90 - 110	

Method Blank(2168183)

Parameter	Units	Results	MRL	LOD	Qualifier
Total Alkalinity (CaCO3)	mg/L	<20.0	20.0	20.0	

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Quality Control Results

QC Batch: WET/31806
Preparation Method: E335.4 CN, SemiAuto Col
Associated Lab IDs: Q2450106001
Analysis Method: E335.4 CN, SemiAuto Col

Laboratory Fortified Matrix (2168161); Original: Q2450051004

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Cyanide, Total	mg/L	0.4	0.311	77.7	90 - 110	SL

Method Reporting Limit Check (2168594)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Cyanide, Total	mg/L	0.02	0.0173	86.6	50 - 150	

Laboratory Fortified Blank (2168162); Lab Fortified Blank Duplicate (2168163)

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Cyanide, Total	mg/L	0.4	0.363	90.6	90 - 110	0.362	90.6	0.0	20	

Laboratory Reagent Blank(2168164)

Parameter	Units	Results	MRL	LOD	Qualifier
Cyanide, Total	mg/L	<0.0200	0.02	0.005	

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Quality Control Results

QC Batch: WET/31818
Preparation Method: SM4500-SiO2-C, Silica
Associated Lab IDs: Q2450106001
Analysis Method: SM4500-SiO2-C, Silica

Matrix Spike (2168904); Matrix Spike Duplicate (2168905); Original: Q2449497001

Parameter	Units	Spiked Amount	Spike Result	%Spike Recovery	Control Limits %	Duplicate Result	%Duplicate Recovery	RPD	RPD Limit	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	19.6	50.4	80 - 120	19.7	51.6	2.35	20	SL

Limit of Quantitation Check (2168892)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	0.5	0.59	118.0	70 - 130	

Lab Control Sample (2168893)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	10.4	104.0	90 - 110	

Method Blank(2168906)

Parameter	Units	Results	MRL	LOD	Qualifier
Silica as SiO2, Dissolved	mg/L	<0.500	0.5	0.2	

Lab Control Sample (2168907)

Parameter	Units	Spiked Amount	Spike Result	Spike Recovery%	Control Limits %	Qualifier
Silica as SiO2, Dissolved	mg/L	10.0	10.4	104.0	90 - 110	

Method Blank(2168889)

Parameter	Units	Results	MRL	LOD	Qualifier
Silica as SiO2, Dissolved	mg/L	<0.500	0.5	0.2	

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3505 Montopolis Drive
Austin, TX 78744
Phone (512)730-6022
Fax (512)730-6021

Quality Control Results

QC Batch: WET/31845
Preparation Method: SM4500-H+B, pH @ 25°C
Associated Lab IDs: Q2450106001
Analysis Method: SM4500-H+B, pH @ 25°C

Duplicate (2171774); Original Q2450106001

Parameter	Units	Original	Duplicate	RPD	RPD Limit	Qualifier
pH	pH	7.71	7.75	0.517	20	
Temperature	C	21.65	21.43	1.02		

QC Sample Comments

Duplicate - 2171774

General Comments for METHOD SM4500-H+B, pH - Defined as a field parameter, measurement must be taken within 15 minutes of collection. Results are provided for information purposes only.

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QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
MET/10722 - E200.8, ICP-MS			
Q2450106001	WELL 4	MEP/14040	E200.8, ICP-MS Prep
MET/10724 - E200.8, ICP-MS			
Q2450106001	WELL 4	MEP/14040	E200.8, ICP-MS Prep
MET/10727 - E200.8, ICP-MS			
Q2450106002	WELL 4 DISSOLVED	MEP/14052	E200.8, ICP-MS Prep
MET/10728 - E200.8, ICP-MS			
Q2450106002	WELL 4 DISSOLVED	MEP/14052	E200.8, ICP-MS Prep
MET/10730 - E200.7 Metals, Trace Elements			
Q2450106001	WELL 4	MEP/14039	E200.7 Prep
Q2450106002	WELL 4 DISSOLVED	MEP/14041	E200.7 Prep
MET/10738 - E200.7 Metals, Trace Elements			
Q2450106001	WELL 4	MEP/14039	E200.7 Prep
MET/10741 - E200.7 Metals, Trace Elements			
Q2450106002	WELL 4 DISSOLVED	MEP/14041	E200.7 Prep
MET/10743 - 245.1Hg			
Q2450106001	WELL 4		
Q2450106002	WELL 4 DISSOLVED		
WET/31781 - E300.0, Anions			
Q2450106001	WELL 4		
WET/31785 - SM2540C, TDS			
Q2450106001	WELL 4		
WET/31791 - SM2510B, Conductivity @ 25°C			
Q2450106001	WELL 4		
WET/31803 - SM2320B, Alkalinity			
Q2450106001	WELL 4		
WET/31806 - E335.4 CN, SemiAuto Col			
Q2450106001	WELL 4	WETP/7425	E335.4 CN, SemiAuto Col
WET/31818 - SM4500-SiO2-C, Silica			
Q2450106001	WELL 4		
WET/31845 - SM4500-H+B, pH @ 25°C			
Q2450106001	WELL 4		

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LCRA Environmental Laboratory Services

Request for Analysis Chain-of-Custody Record

LCRA - Environmental Lab
3505 Montopolis Dr
Austin, TX 78744

Phone: (512) 730-6022 or 1-800-776-5272
Fax: (512) 730-6021
https://els.lcra.org

Lab ID#: Q445016
Client PO:

Project:	THG BGE-POID	Client:	THORNHILL GROUP, INC.
Collector:	ERIC SEAGER	Contact:	ERIC SEEGER
Event#:	1733866	Phone:	(512) 244-2172

Report to: ERIC SEEGER, THORNHILL GROUP, INC, 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

Invoice to: ERIC SEEGER, THORNHILL GROUP, INC, 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

	Sample ID *	Collected: Date*	Collected: Time HH:MM*	Matrix* (AQ = Aqueous, DW = Drinking Water, S = Solid, T = Tissue)	COMPOSITE Y/N	FILTERED Y/N	Containers: 1LPNOH	1LPU	250PHNO3	500PU	Requested Analysis *: 1030EBAL	200.7DM	200.7DML	200.8DM	200.8DML	2320-DM	2340-HRD+A	245.1Hg	245.1Hg-DL	2510-DU	2540-DMTDS	300.0DM-48
1	~~WELL 7~~ Well 4	11/21/24	13:45	DW			1	1	1	1	X	X		X		X	X	X		X	X	X
2	~~WELL 7~~ DISSOLVED DISSOLVED Well 4	11/21/24	13:45	DW					1				X		X				X			
3	~~WELL 3~~			DW			1	1	1	1	X	X		X		X	X	X		X	X	X
4	~~WELL 3 DISSOLVED~~ DISSOLVED			DW					1				X		X				X			
5				DW			1	1	1	1	X	X		X		X	X	X		X	X	X
6	DISSOLVED			DW					1				X		X				X			

Transfers	Relinquished By	Date/Time	Received By	Date/Time	Cooler Temp (°C): T#	Obs	CF	Corr
1	[signature]	11/22/24 9:22						
2			S. Ortega	11/22/24 9:22 ~~9:45~~	IR9	5.5	0.0	5.5
3								

Client Special Instructions:

Note: Relinquishing sample(s) and signing the COC, client agrees to accept and is bound by the ELS Standard Terms and Conditions. All fields with an asterisk (*) are required to be completed.

02450106
674166

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LCRA Environmental Laboratory Services

Request for Analysis Chain-of-Custody Record

LCRA - Environmental Lab
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Austin, TX 78744

Phone: (512) 730-6022 or 1-800-776-5272
Fax: (512) 730-6021
https://els.lcra.org

Lab ID#: 0245010G
Client PO:

Project:	THG BGE-POID	Client:	THORNHILL GROUP, INC.
Collector:	ERIC SEAGER	Contact:	ERIC SEEGER
Event#:	1733866	Phone:	(512) 244-2172

Report to: ERIC SEEGER, THORNHILL GROUP, INC, 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

Invoice to: ERIC SEEGER, THORNHILL GROUP, INC, 1106 S. MAYS ST. STE. 100, Round Rock, TX 78664-6768

	Sample ID *	Collected: Date*	Collected: Time HH:MM*	Matrix* (AQ = Aqueous, DW = Drinking Water, S = Solid, T = Tissue)	COMPOSITE Y/N	FILTERED Y/N	Containers: 1LPNOH	1LPU	250PHNO3	500PU	250 PU			Requested Analysis *: 335.4WM	4500-DM-Si	4500-DP-PH	S-2132-IDW							
1	~~WELL 7~~ Well 4	11/21/24	13:45	DW			1	1	1	1	1			X	X	X	X							
2	~~WELL 7 DI~~SSOLVED DISSOLVED	11/21/24	13:45	DW					1		1						X							
3	~~WELL 3~~			DW			1	1	1	1				~~X~~	~~X~~	~~X~~								
4	~~WELL 3 DISSOLVED~~ DISSOLVED			DW					1															
5				DW			1	1	1	1				~~X~~	~~X~~	~~X~~								
6	DISSOLVED			DW					1															

Transfers	Relinquished By	Date/Time	Received By	Date/Time	Cooler Temp (°C): T#	Obs	CF	Corr	Client Special Instructions:
1	Erin Sug	11/22/24 9:22							
2			S-Ortega	11/22/24 9:22					Lab Use Only:
3									

Note: Relinquishing sample(s) and signing the COC, client agrees to accept and is bound by the ELS Standard Terms and Conditions. All fields with an asterisk (*) are required to be completed.

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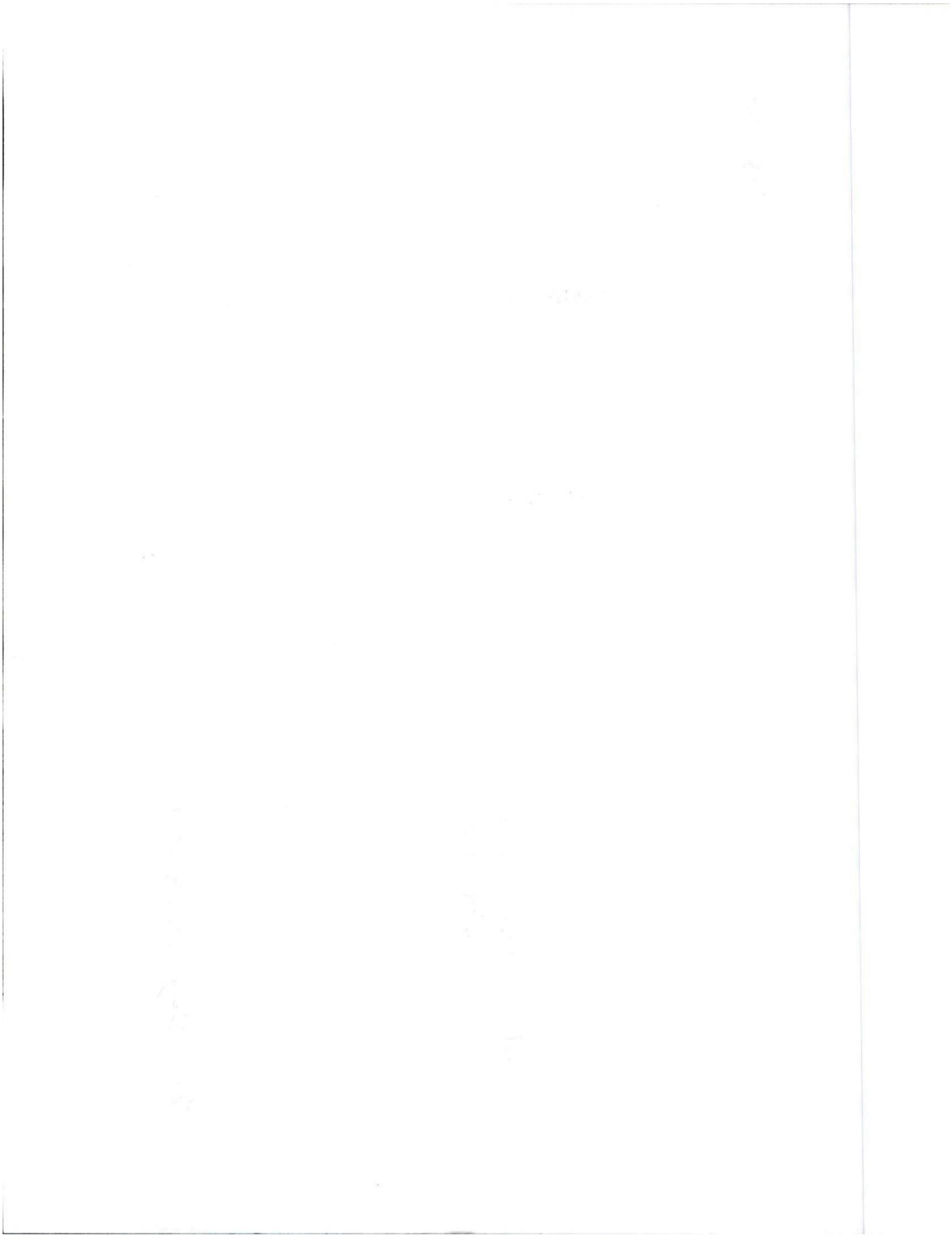
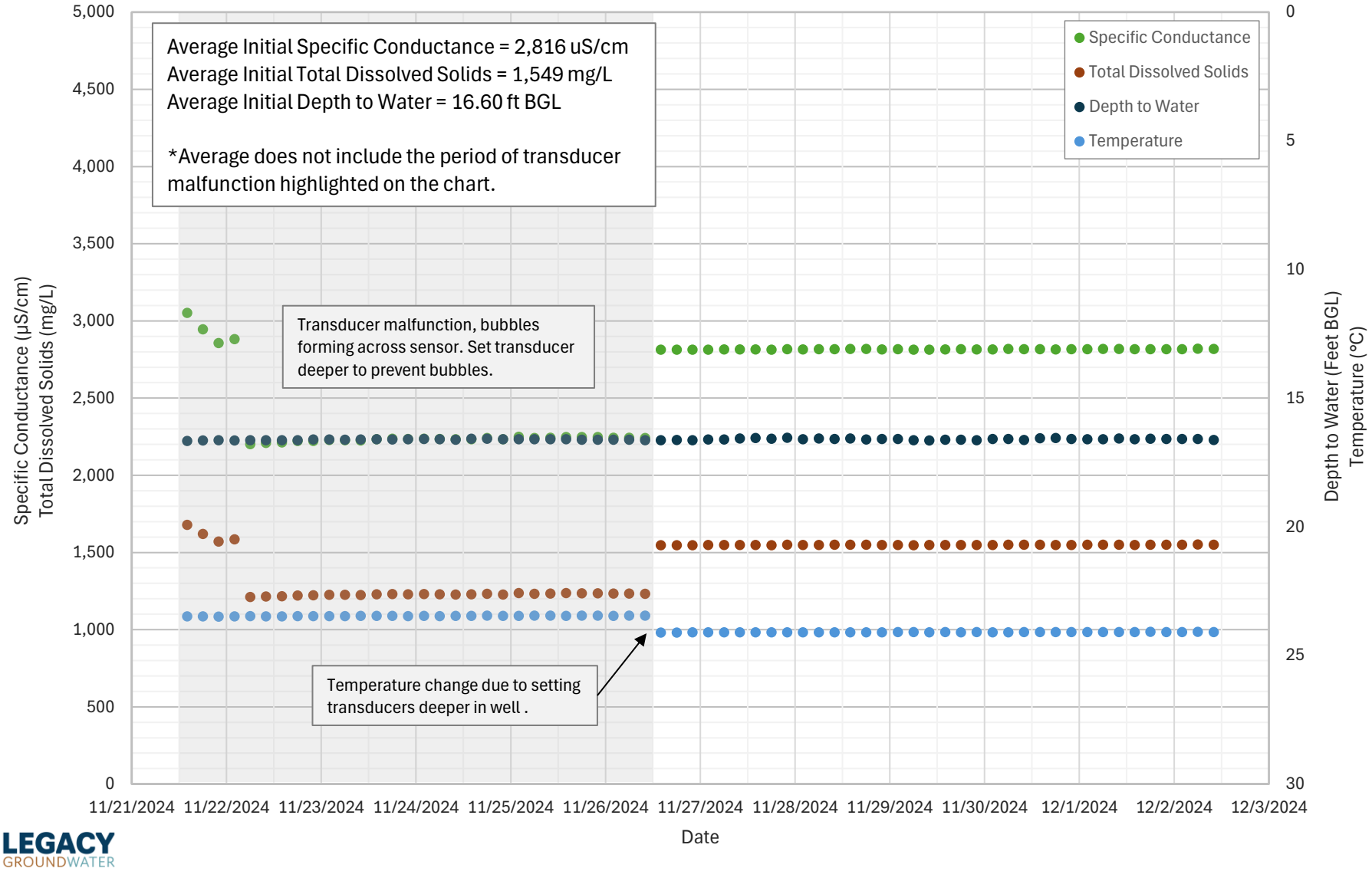


End of Report

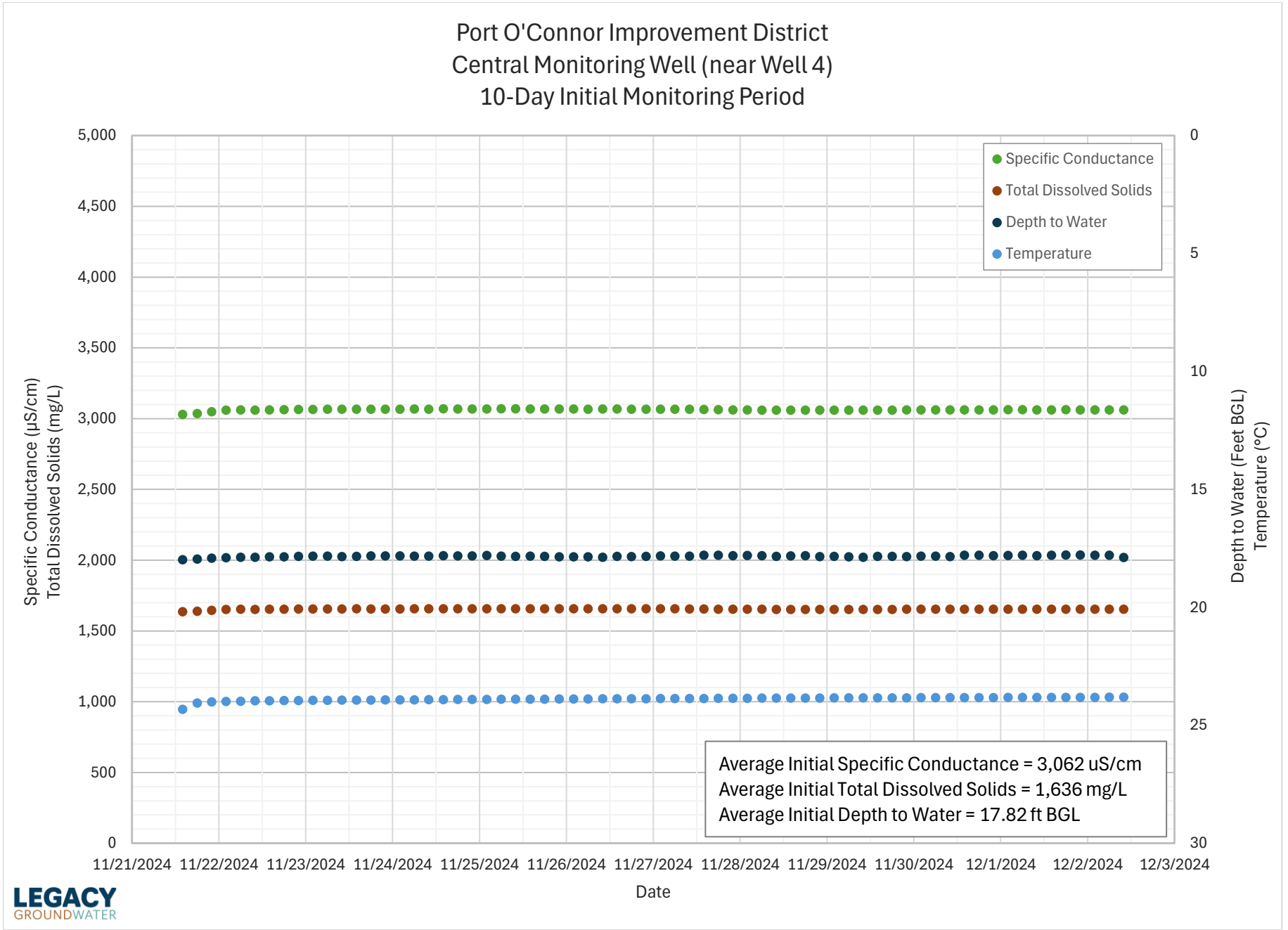
Attachment 3 –

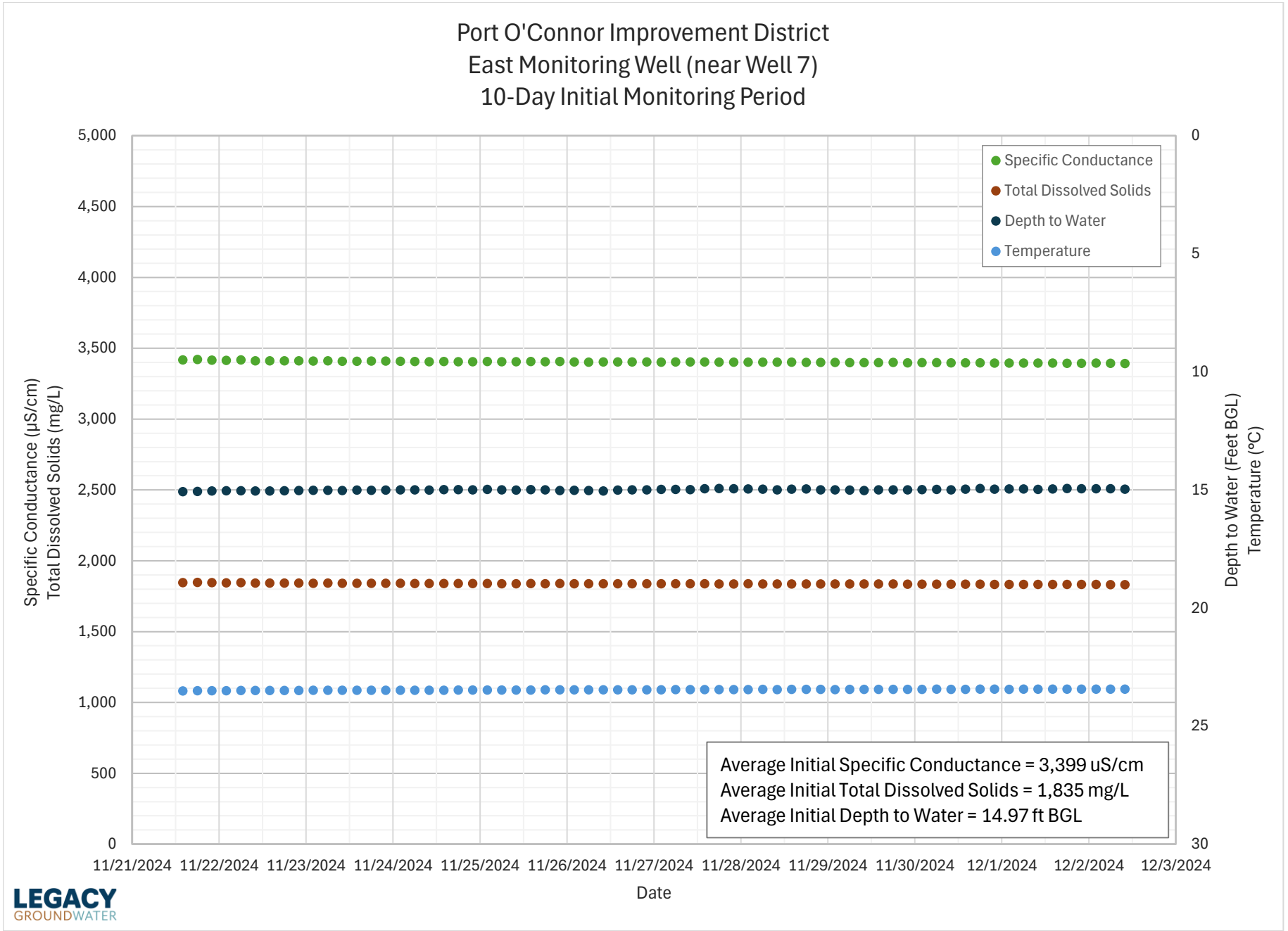
Charts: Water Levels, Specific Conductance, TDS and Temperature

Port O'Connor Improvement District
West Monitoring Well (near Well 3)
10-Day Initial Monitoring Period



LEGACY GROUNDWATER


Port O'Connor Improvement District
Central Monitoring Well (near Well 4)
10-Day Initial Monitoring Period
Specific Conductance
Total Dissolved Solids
Depth to Water
Temperature
Specific Conductance (µS/cm)
Total Dissolved Solids (mg/L)
Depth to Water (Feet BGL)
Temperature (°C)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
5
10
15
20
25
30
11/21/2024
11/22/2024
11/23/2024
11/24/2024
11/25/2024
11/26/2024
11/27/2024
11/28/2024
11/29/2024
11/30/2024
12/1/2024
12/2/2024
12/3/2024
Date
Average Initial Specific Conductance = 3,062 uS/cm
Average Initial Total Dissolved Solids = 1,636 mg/L
Average Initial Depth to Water = 17.82 ft BGL
LEGACY
GROUNDWATER


Port O'Connor Improvement District
East Monitoring Well (near Well 7)
10-Day Initial Monitoring Period
Specific Conductance (µS/cm)
Total Dissolved Solids (mg/L)
Depth to Water (Feet BGL)
Temperature (°C)
Specific Conductance
Total Dissolved Solids
Depth to Water
Temperature
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
5
10
15
20
25
30
11/21/2024
11/22/2024
11/23/2024
11/24/2024
11/25/2024
11/26/2024
11/27/2024
11/28/2024
11/29/2024
11/30/2024
12/1/2024
12/2/2024
12/3/2024
Date
Average Initial Specific Conductance = 3,399 uS/cm
Average Initial Total Dissolved Solids = 1,835 mg/L
Average Initial Depth to Water = 14.97 ft BGL
LEGACY
GROUNDWATER