February 14, 2024
SCS Project No. 16223032.00

Mr. Luke Johnson
Compliance Manager
NAES Corporation
2161 Rattlesnake Road
Riesel, Texas 76682

Subject: Sandy Creek Energy Station
Coal Combustion Residual Waste Management Facility
TCEQ Registration No. CCR107
McLennan County, Texas
2023 Annual Groundwater Monitoring and Corrective Action Report Submittal

Dear Mr. Johnson:

SCS Engineers (SCS) is pleased to submit the 2023 Annual Groundwater Monitoring and Corrective Action Report to the Sandy Creek Energy Station (SCES), in accordance with Coal Combustion Residual Rule (CCR) 40 CFR Part §257.105(h)(1), and the site Groundwater Sampling and Analysis Plan (GWSAP), prepared by SCS, dated January 13, 2022.

Please contact Robert Fowler at (501) 672-9320 if you have comments or require additional information.

Sincerely,

Elizabeth Beall, G.I.T.
Associate Staff Professional
SCS ENGINEERS
TBPE Registration No. F-3407

STATE OF TEXAS
BRETT J. DeVRIES
128061
LICENSED
PROFESSIONAL ENGINEER
2/14/24

Brett DeVries, Ph.D., P.E.
Senior Project Manager
SCS ENGINEERS

STATE OF TEXAS
ROBERT FOWLER
GEOLOGY
15282
LICENSED
PROFESSIONAL GEOSCIENTIST
2/13/24

Robert Fowler, P.G.
Project Manager
SCS ENGINEERS

Attachment: 2023 Annual Groundwater Monitoring and Corrective Action Report

2023 Annual Groundwater Monitoring and Corrective Action Report

Sandy Creek Energy Station
Coal Combustion Residual Waste Management Facility
McLennan County, Texas

Prepared For:

Sandy Creek Energy Station
2161 Rattlesnake Road
Riesel, Texas 76682

SCS ENGINEERS

SCS Project 16223032.00 | February 2024

1901 Central Drive, Suite 550
Bedford, TX 76021
817-571-2288

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Appendices

1.0 INTRODUCTION AND BACKGROUND

SCS Engineers (SCS) is submitting this 2023 Annual Groundwater Monitoring and Corrective Action Report for the Sandy Creek Energy Station (Plant) Coal Combustion Residual Waste Management Facility (Landfill). This report is submitted in accordance with 40 CFR §257.105(h)(6), 30 TAC 352.931, and the site Groundwater Sampling and Analysis Plan (GWSAP) prepared by SCS, and sealed on October 2, 2023. This report includes results for two semiannual detection monitoring events, conducted in June 2023 and December 2023.

SCES is a pulverized coal-fired electric generation facility which operates a landfill for disposal of dry scrubber ash and bottom ash generated during the coal combustion process at the facility. Incidental wastes generated during the operation of the facility may also be disposed in the landfill, as described in the initial registration notification to TCEQ. The landfill is currently comprised of disposal cells, Cells 1 and 2, which commenced receiving waste in early 2013 and October 2014, respectively. Additionally, a portion of Cell 3 (includes subcells 3A through 3D) was constructed in 2021. The approximate area of currently constructed Cells 1, 2, and 3 are 10.0, 14.3, and 10.3 acres, respectively.

Sampling of groundwater monitoring wells is conducted in accordance with 40 CFR §257.93, 30 TAC §352.931, and the GWSAP. Groundwater monitoring of six wells must be performed (BW-1, MW-1, MW-2, MW-3, MW-4, MW-5; as depicted on **Figure 1** and **Figure 2** for well locations).

In accordance with 40 CFR §257.94(b), and 30 TAC 352.941 quarterly background monitoring must be performed for each well for eight consecutive quarters (i.e., eight independent samples collected for each well). The Appendix III and IV constituents monitored during the first eight quarters include 18 inorganic compounds, total dissolved solids, radium-226, and radium-228. In accordance with 40 CFR §257.94(a and b), the constituents monitored in subsequent events and during the 2023 monitoring events include Appendix III constituents only. Monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5 and BW-1 are currently in detection monitoring.

In June of 2023, all wells were in detection monitoring. Initial significant increases (SSIs) were reported for fluoride in MW-1 and TDS in BW-1. On August 22, 2023, MW-1 and BW-1 were redeveloped and verification resampling was conducted, which the constituents fluoride and TDS were below their statistical limits. All of the wells remained in detection monitoring due to the unconfirmed exceedances. In December of 2023 an initial SSI was reported for calcium in MW-1. This initial reported SSI was addressed in an alternate source demonstration (**Appendix E**) submitted along with the December 2023 Annual Groundwater Report in accordance with 40 CFR §257.94(e)(2). Accordingly, the site remained in detection monitoring.

2.0 GROUNDWATER MONITORING SUMMARY

2.1 GROUNDWATER MONITORING SYSTEM

The current groundwater monitoring system at the SCES landfill consists of six wells, all of which are in detection monitoring (see **Table 1** below). Monitoring well BW-1 serves as an upgradient monitoring point and the remaining five monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5) serve as downgradient monitoring points. **Figure 1** and **Figure 2** depicts monitoring well locations at SCES.

Table 1 – Sandy Creek Energy Station Groundwater Monitoring System

Well ID (U/D)[1]	Status	Top of Casing Elevation (ft msl)[2]	Well Depth (ft, bgs)[2]	Screen Interval (ft, bgs)[2]	Water Level Elevation (ft msl, on 12/20/2023)
BW-1 (U)	Detection	485.57	38.63	28.30-38.30	468.97
MW-1 (D)	Detection	465.87	34.23	23.90-33.90	454.33
MW-2 (D)	Detection	442.15	19.63	9.30-19.30	429.42
MW-3 (D)	Detection	430.06	16.23	5.98-15.98	418.34
MW-4 (D)	Detection	436.91	30.30	20.00-30.00	421.11
MW-5 (D)	Detection	454.52	35.30	25.00-35.00	438.72

1 (U) = upgradient, (D) = downgradient; 2 Top of Casing Elevation, Well Depth, and Screen Interval information obtained from Table 1 – Monitoring Well and Piezometer Construction Details and Groundwater Elevations prepared by Geosyntec Consultants, dated March 11, 2016 and the November 2020 Groundwater Monitoring Well Install Report prepared by SCS Engineers dated January 22, 2021; ft msl = feet above mean sea level; ft bgs = feet below ground surface

2.2 SUMMARY OF 2023 SAMPLING EVENTS

All sampling events followed the groundwater sampling and laboratory analysis procedures outlined in the GWSAP. A duplicate sample was collected from one well during each event for Quality Assurance & Quality Control (QA/QC) purposes. All monitoring wells were sampled and analyzed for 40 CFR §257 Appendix III constituents, in accordance with 40 CFR §257.94(a).

June 2023 – Semiannual Detection Monitoring Event

All six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and BW-1) were purged and sampled on June 1, 2023, using disposable PVC bailers. Quality Assurance/Quality Control (QA/QC) samples obtained included one duplicate (DUP). Field forms and laboratory results for this event are provided in **Appendices A** & **B**, respectively, and summarized in **Table 2**. The Laboratory Review Checklist was reviewed by SCS, and the data was determined to conform to the most current National Environmental Laboratory Accreditation Conference (NELAC) standards. Two initial statistically significant increases (SSIs) were detected during this event at SCES. Fluoride was detected in MW-1 above its statistical limit, and TDS was detected in BW-1 above its statistical limit. SCS recommended a verification resampling for the constituent fluoride in MW-1, TDS in BW-1, and for BW-1 to be redeveloped to reduce TDS levels within the water column.

August 2023 – Verification Resampling Event

MW-1, MW-2, MW-3, and BW-1 were purged and sampled on August 22, 2023, using disposable PVC bailers. Laboratory results for this event and historical monitoring are provided in **Appendices B** & **C**. MW-1 and BW-1 were redeveloped to reduce turbidity levels in the water column for future monitoring

events. The results for fluoride in MW-1 and TDS in BW-1 were under their statistical limits (determined in the October 6, 2023 Background Evaluation Report). Due to the unconfirmed exceedances, the site remained in detection monitoring.

December 2023 – Annual Detection Monitoring Event

All six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and BW-1) were purged and sampled on December 20, 2023, using disposable PVC bailers. Quality Assurance/Quality Control (QA/QC) samples obtained included one duplicate (DUP). Field forms and laboratory results for this event are provided in **Appendices A** & **B**, respectively, and summarized in **Table 2**. The Laboratory Review Checklist was reviewed by SCS, and the data was determined to conform to the most current NELAC standards. An initial statistically significant increase (SSI) was detected for calcium in MW-1 during this event. As outlined in the attached ASD for calcium in MW-1, the SSI was not confirmed by comparing upgradient to downgradient data and calculating an interwell parametric prediction limit. SCS recommended the continuation of detection monitoring for the site due to the lack of confirmed SSIs for Appendix III constituents.

3.0 RESULTS AND STATISTICAL ANALYSIS

A summary of June 2023, August 2023, and December 2023 laboratory results and statistical limits in each well–constituent pair is provided in **Table 2**. Time series graphs of Appendix III constituent concentrations are provided in **Appendix D**. Statistical limits were determined in accordance with 40 CFR §257.93(f-g) and the GWSAP using the software program Sanitas®. Statistical limits for the June 2023 sampling event were determined in the Background Evaluation Report Update completed on June 27, 2023. Statistical limits for the December 2023 sampling event were determined in the Background Evaluation Report Update completed on October 6, 2023. Statistical limits were presented using Shewhart-CUSUM control charts, non-parametric prediction limits, or parametric prediction limits as deemed appropriate by background data distributions.

Table 2 – Sandy Creek Energy Station 2023 Sampling Results and Statistical Limits

MW-ID	Constituent	Lab Results June 2023	Lab Results August 2023	Lab Results December 2023	Statistical Limit June 2023*	Statistical Limit December 2023**
MW-1 (D)	Boron (mg/L)	1.170	1.120	1.200	1.671	1.661
	Calcium (mg/L)	491.0	506.0	***660.0***	597.2	***603.5***
	Chloride (mg/L)	153.0	132.0	150.0	738.4	253
	pH at 25˚C	7.44	7.37	7.20	6.2 – 8.3	6.2 – 8.3
	Sulfate (mg/L)	2730	2340	2300	3230	3299
	TDS (mg/L)	4750	4310	4100	5199	5444
	Fluoride (mg/L)	***1.2***	0.581	ND	***1.1***	1.2
MW-2 (D)	Boron (mg/L)	1.290	1.400	1.200	3.306	3.533
	Calcium (mg/L)	509.0	650.0	690.0	830.0	827.1
	Chloride (mg/L)	2810	1550	1400	3612	3709
	pH at 25˚C	7.35	6.74	7.10	6.7 - 7.5	6.7 – 7.5
	Sulfate (mg/L)	3760	2290	2400	4453	4671
	TDS (mg/L)	12800	7700	8000	13161	13374

	Fluoride (mg/L)	0.944	0.577	ND	1.3	1.3
MW-3 (D)	Boron (mg/L)	1.180	1.130	1.100	1.573	1.565
	Calcium (mg/L)	491.0	533.0	580.0	772.0	697.5
	Chloride (mg/L)	293.0	287.0	320.0	612.1	595.7
	pH at 25˚C	7.11	6.71	6.80	5.5 – 8.1	6.5 – 7.3
	Sulfate (mg/L)	3430	3120	2800	4064	3926
	TDS (mg/L)	7840	5610	6200	8301	8507
	Fluoride (mg/L)	1.00	0.476	ND	1.00	0.662
MW-4 (D)	Boron (mg/L)	4.97	N/A	4.70	6.58	6.58
	Calcium (mg/L)	372.0	N/A	550.0	641.8	641.8
	Chloride (mg/L)	300.0	N/A	760.0	1892	1892
	pH at 25˚C	7.84	N/A	7.40	5.7 – 9.1	5.7 – 9.1
	Sulfate (mg/L)	792.0	N/A	2600	3416	3416
	TDS (mg/L)	1560	N/A	6900	7432	7432
	Fluoride (mg/L)	0.285	N/A	ND	0.55	0.55
MW-5 (D)	Boron (mg/L)	2.60	N/A	3.30	4.5	4.5
	Calcium (mg/L)	470.0	N/A	650.0	706.6	706.6
	Chloride (mg/L)	1280	N/A	1200	1986	1986
	pH at 25˚C	7.86	N/A	7.50	6.2 – 8.2	6.2 – 8.2
	Sulfate (mg/L)	3740	N/A	3100	4154	4154
	TDS (mg/L)	9160	N/A	7000	9806	9806
	Fluoride (mg/L)	1.140	N/A	ND	1.139	1.139
BW-1 (U)	Boron (mg/L)	3.440	2.880	3.300	4.922	4.837
	Calcium (mg/L)	528.0	539.0	710.0	778.9	738.4
	Chloride (mg/L)	1210	1050	1100	1484	1502
	pH at 25˚C	7.53	7.18	7.10	6.3 – 7.8	6.2 – 7.9
	Sulfate (mg/L)	3220	2740	2700	3563	3770
	TDS (mg/L)	***8660***	6250	6800	***7260***	7320
	Fluoride (mg/L)	0.864	ND	ND	1.0	0.94
	*Calculated in June 27, 2023 Background Evaluation Report Update **Calculated in October 6, 2023 Background Evaluation Report Update (U)=upgradient, (D)=downgradient ***Bolded italicized*** value indicates that constituent exceeded intrawell statistical limit (unconfirmed SSI) ND=Not detected					

Two unconfirmed initial SSIs were determined for fluoride in MW-1 and TDS in BW-1 during the June 2023 monitoring event. On August 22, 2023 both MW-1 and BW-1 were redeveloped and verification resampling was conducted, which the constituents fluoride and TDS were below their statistical limits. One unconfirmed initial SSI was determined for calcium in MW-1 during the December 2023

monitoring event. In accordance with 40 CFR §257.94(e), an alternate source demonstration (ASD) is provided in **Appendix E** for the calcium exceedance in MW-1.

4.0 RECOMMENDATIONS

The exceedance of fluoride in MW-1 and TDS in BW-1 during the June 2023 detection monitoring was not confirmed during the verification resampling event in August 2023. In addition to the verification resampling, both wells were redeveloped to reduce turbidity levels within the water column. One exceedance of calcium was reported in MW-1 during the December 2023 detection monitoring event. This initial reported SSI was addressed in an alternate source demonstration (**Appendix E**) submitted along with the December 2023 Annual Groundwater Report in accordance with 40 CFR §257.94(e)(2). The SSI was not confirmed by comparing upgradient to downgradient data and calculating an interwell parametric prediction limit in accordance with 40 CFR §257.94(e)(2). Since the detection of calcium falls below the interwell statistical limit, this indicates that the detection is from an upgradient source and not from the landfill, resulting in a natural variation in groundwater quality and is representative of background data within the boundary of the facility. No other confirmed SSIs were identified for any Appendix III constituents during the 2023 detection monitoring events at Sandy Creek Energy Station Coal Combustion Residual Waste Management Facility. SCS recommends that the facility remain in semiannual detection monitoring, in accordance with 40 CFR §257.94. Due to the lack of confirmed SSIs for Appendix III constituents during 2023 detection monitoring, the landfill will continue monitoring for all constituents listed in 40 CFR §257 Appendix III during semiannual groundwater monitoring events, in accordance with 40 CFR §257.94(a). The Appendix IV constituent list will be analyzed if any confirmed statistical exceedances of the Appendix III list are indicated in future events. The next planned groundwater monitoring event is a semiannual detection monitoring event scheduled for the second quarter of 2024.

5.0 GROUNDWATER FLOW RATE AND DIRECTION CALCULATIONS JUNE 2023

In accordance with 40 CFR Part §257.93(c), the groundwater flow rate and direction in the uppermost aquifer in the area of the existing groundwater monitoring wells were calculated.

Flow Rate Calculation Using June 2023 Data

$Va = \frac{KI}{7.5N}$ (Driscoll, 1986, Groundwater and Wells)

Where:

- Va = Actual Velocity of Groundwater Flow (ft/day)
- K = Hydraulic Conductivity (gpd/ft^2)
- I = Hydraulic Gradient (ft/ft)
- N = Effective Porosity (%)

Then:

K = 2.0 x 10^{-4} cm/sec (geometric mean hydraulic conductivity obtained from slug tests performed by Geosyntec in 2010)

Find K equivalent in units of gpd/ft^2:

(1 cm/sec = 21,200 gallons/day/ft^2)

2.0 x 10^{-4} cm/sec x 21,200 gallons/day/ft^2 = 4.24 gpd/ft^2

Find I: BW-1 elevation – MW-3 elevation: 469.32 ft – 421.06 ft = 0.0205 ft/ft
distance between wells: 2,350 ft

I = 0.0205 ft/ft (ave. gradient across the site, from June 2023 water levels)
N = 6% (representative effective porosity for clay from Morris and Johnson, 1967)

Therefore:

$Va = \frac{4.24 \text{ gpd/ft}^2 \times (0.0205 \text{ ft/ft})}{7.5\ (0.06)} = 0.193$ ft/day

(0.193 ft/day)(365 days/year) = **70.45 ft/year**

Conclusion

The June 2023 site groundwater flow rate is **70.45 ft/year**. The gradient was measured using BW-1 and MW-3. The June 2023 groundwater flow direction is to the south-southwest. The groundwater flow rate and direction are consistent with conditions previously observed at the site. See **Figure 1** for details, provided in accordance with 40 CFR Part §257.93(c).

6.0 GROUNDWATER FLOW RATE AND DIRECTION CALCULATIONS DECEMBER 2023

In accordance with 40 CFR Part §257.93(c), the groundwater flow rate and direction in the uppermost aquifer in the area of the existing groundwater monitoring wells were calculated.

Flow Rate Calculation Using December 2023 Data

$Va = \frac{KI}{7.5N}$ (Driscoll, 1986, Groundwater and Wells)

Where:

Va = Actual Velocity of Groundwater Flow (ft/day)
K = Hydraulic Conductivity (gpd/ft^2)
I = Hydraulic Gradient (ft/ft)
N = Effective Porosity (%)

Then:

K = 2.0 x 10^{-4} cm/sec (geometric mean hydraulic conductivity obtained from slug tests performed by Geosyntec in 2010)

Find K equivalent in units of gpd/ft^2:

(1 cm/sec = 21,200 gallons/day/ft^2)

2.0 x 10^{-4} cm/sec x 21,200 gallons/day/ft^2 = 4.24 gpd/ft^2

Find I: $\frac{\text{BW-1 elevation – MW-3 elevation}}{\text{distance between wells:}} = \frac{468.97 \text{ ft} - 418.34 \text{ ft}}{2{,}350 \text{ ft}} = 0.0215$ ft/ft

I = 0.0215 ft/ft
N = 6% (representative effective porosity for clay from Morris and Johnson, 1967)

Therefore:

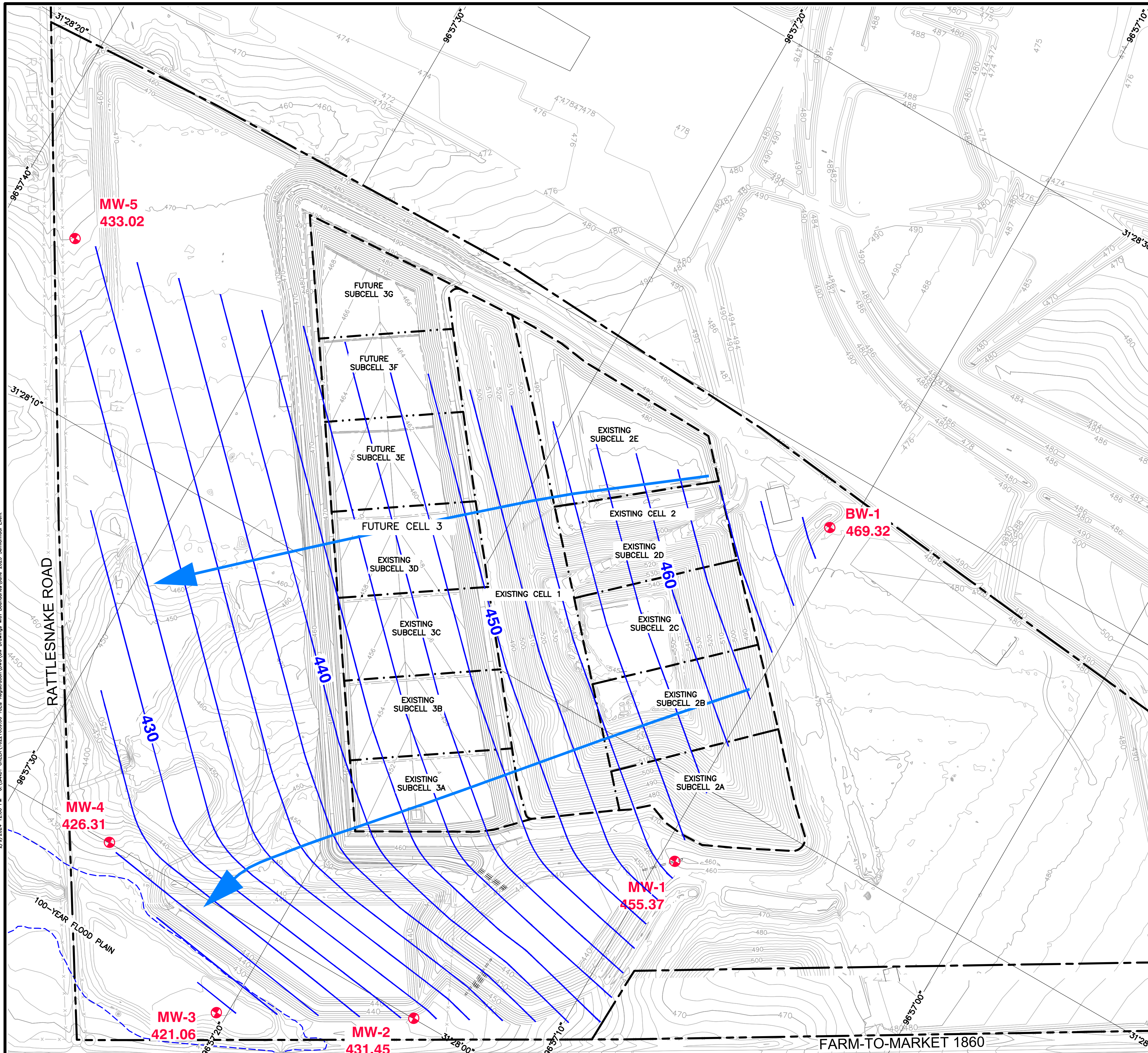
$Va = \frac{4.24 \text{ gpd/ft}^2 \times (0.0215 \text{ ft/ft})}{7.5\ (0.06)} = 0.203$ ft/day

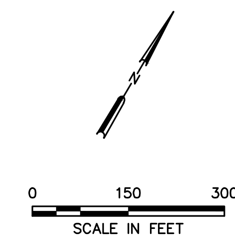
(0.203 ft/day)(365 days/year) = **74.095 ft/year**

Conclusion

The December 2023 site groundwater flow rate is approximately **74.095 ft/year**. The gradient was measured using BW-1 and MW-3. The December 2023 groundwater flow direction is to the south-southwest. The groundwater flow rate and direction are consistent with conditions previously observed at the site. See **Figure 2** for details, provided in accordance with 40 CFR Part §257.93(c).

Figure 1. Groundwater Contour Map June 2023



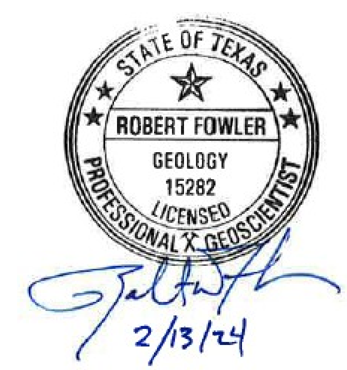


LEGEND

- PLANT PROPERTY BOUNDARY
- LANDFILL REGISTRATION BOUNDARY
- REGISTERED LIMITS OF WASTE
- EXISTING CELL BOUNDARY
- FUTURE CELL BOUNDARY
- 96°57'10" LATITUDE/LONGITUDE LINES
- 100-YEAR FLOOD PLAIN
- MW-1 EXISTING MONITORING WELL
- 450 PROPOSED/EXISTING EXCAVATION CONTOURS (SEE NOTE 3)
- 450 GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTES:

1. THE EXISTING CONTOUR MAP SHOWN ON THIS DRAWING WAS COMPILED FROM AN AERIAL SURVEY CONDUCTED BY DALLAS AERIAL SURVEY, INC. IN NOVEMBER, 2020 AND EXISTING TOPOGRAPHY BY BLACK & VEATCH CORPORATION DATED APRIL 2006. STATE PLANE COORDINATE GRID CORRESPONDS TO TEXAS STATE PLAN COORDINATE SYSTEM, TEXAS CENTRAL ZONE (4203), NORTH AMERICAN DATUM 83 (NAD83) 1983.
2. ELEVATION ARE IN FEET ABOVE MEAN SEA LEVEL (FT, MSL) AS DEFINED BY THE USGS NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1988. STATE PLANE COORDINATE GRID CORRESPONDS TO TEXAS STATE COORDINATE SYSTEM, TEXAS CENTRAL ZONE (4203), NORTH AMERICAN DATUM OF 1983 (NAD-83)
3. .EXISTING FEATURES IN SUBCELLS 3A THROUGH 3D ARE EXISTING AND SUBCELLS 3E THROUGH 3G ARE PROPOSED AT THE TIME OF THIS REGISTRATION APPLICATION DEVELOPMENT.
4. WATER LEVEL ELEVATIONS WERE TAKEN IN JUNE 1, 2023.



FOR INFORMATION PURPOSES ONLY

REV	DATE	DESCRIPTION	BY

DRAWING TITLE: GROUNDWATER CONTOUR MAP

PROJECT TITLE: FIRST SEMIANNUAL GROUNDWATER MONITORING REPORT JUNE 2023 SAMPLING EVENT

CLIENT: NAES CORPORATION
2161 RATTLESNAKE ROAD
RIESEL, TEXAS 76682

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
1901 CENTRAL DRIVE, SUITE 550, BEDFORD, TX 76021
PH (817) 571-2288 FAX NO. (817) 571-2188

PROJ. NO. 16223032.00 | DSN. BY: AB | DWN. BY: JG | CHK. BY: AB | Q/A RVW BY: GG | APP. BY: GG

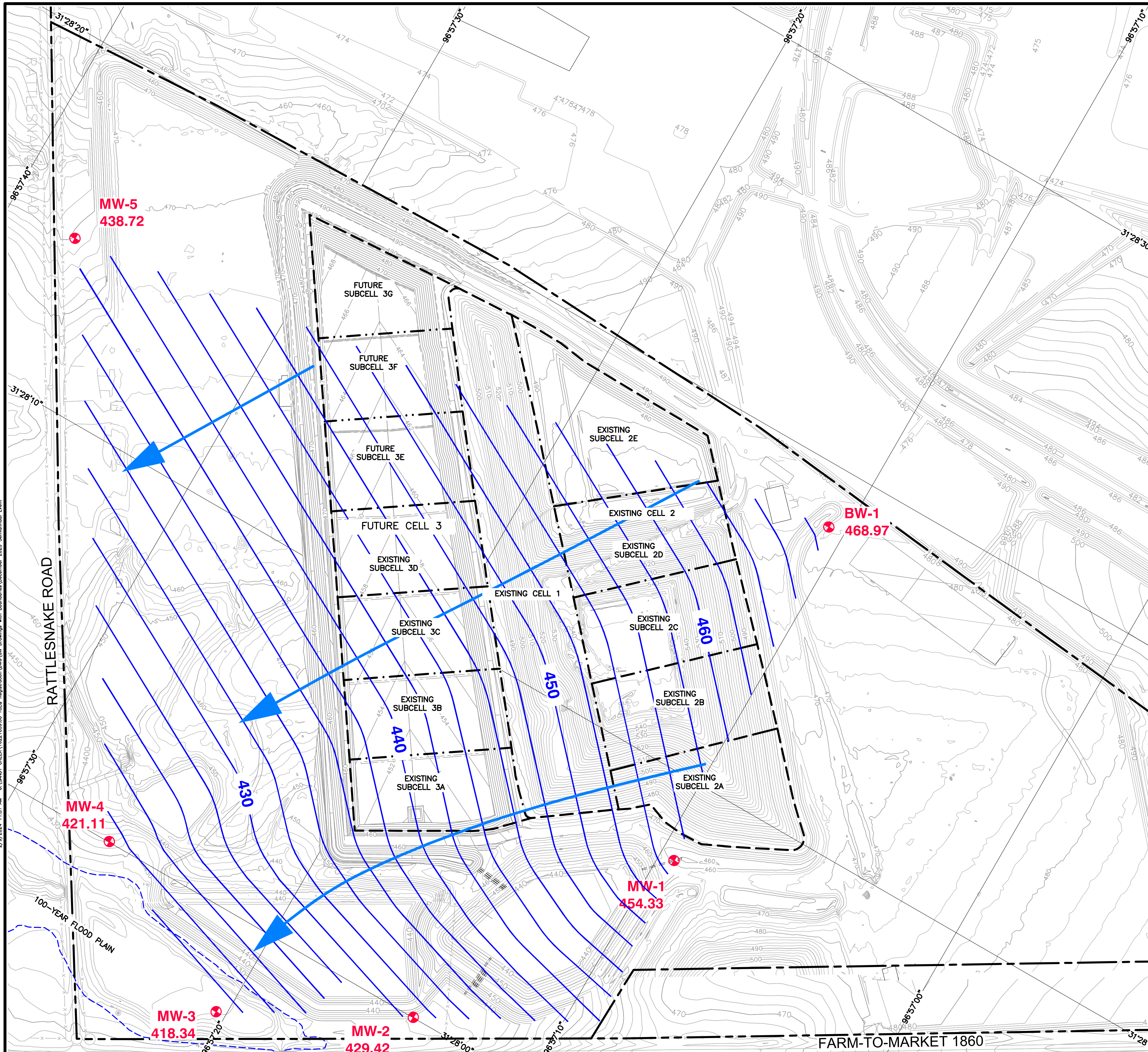
CADD FILE: JUNE 2023 SEMIANNUAL EVENT

DATE: 6/2023

SCALE: AS SHOWN

DRAWING NO. 1

Figure 2. Groundwater Contour Map December 2023



0 150 300
SCALE IN FEET

LEGEND

PLANT PROPERTY BOUNDARY
LANDFILL REGISTRATION BOUNDARY
REGISTERED LIMITS OF WASTE
EXISTING CELL BOUNDARY
FUTURE CELL BOUNDARY
96°57'10" LATITUDE/LONGITUDE LINES
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MW-1 EXISTING MONITORING WELL
450 PROPOSED/EXISTING EXCAVATION CONTOURS (SEE NOTE 3)
450 GROUNDWATER CONTOUR
GROUNDWATER FLOW DIRECTION

NOTES:

1. THE EXISTING CONTOUR MAP SHOWN ON THIS DRAWING WAS COMPILED FROM AN AERIAL SURVEY CONDUCTED BY DALLAS AERIAL SURVEY, INC. IN NOVEMBER, 2020 AND EXISTING TOPOGRAPHY BY BLACK & VEATCH CORPORATION DATED APRIL 2006. STATE PLANE COORDINATE GRID CORRESPONDS TO TEXAS STATE PLAN COORDINATE SYSTEM, TEXAS CENTRAL ZONE (4203), NORTH AMERICAN DATUM 83 (NAD83) 1983.
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4. WATER LEVEL ELEVATIONS WERE TAKEN IN DECEMBER 20, 2023.

STATE OF TEXAS
ROBERT FOWLER
GEOLOGY
15282
LICENSED
PROFESSIONAL GEOSCIENTIST
2/13/24

STATE OF TEXAS
BRETT J. DeVRIES
128061
LICENSED
PROFESSIONAL ENGINEER
2/14/24

FOR INFORMATION PURPOSES ONLY

REV	DATE	DESCRIPTION	BY

DRAWING TITLE: **GROUNDWATER CONTOUR MAP**

PROJECT TITLE: **SANDY CREEK SECOND SEMIANNUAL REPORT DECEMBER 2023 SAMPLING EVENT**

CLIENT: **NAES CORPORATION 2161 RATTLESNAKE ROAD RIESEL, TEXAS 76682**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
1901 CENTRAL DRIVE, SUITE 550, BEDFORD, TX 76021
PH (817) 571-2288 FAX NO. (817) 571-2188

PROJ. NO. 16223032.00 | DWN. BY: JG | Q/A RVW BY: GG
DSN. BY: AB | CHK. BY: AB | APP. BY: GG

CADD FILE: DECEMBER 2023 SEMIANNUAL EVENT

DATE: 6/2023

SCALE: AS SHOWN

DRAWING NO. 1

Appendix A

2023 Groundwater Monitoring Field Forms

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: BW-1
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/22/2015

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 485.57
Depth to water(below datum)*: 16.25
4. Water level elevation*: 469.32

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 3
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.00	
15. Spec. cond.	8.12	16. ■ mS/cm
17. Temp.	23.73	18. ☐ F or ■ C (check one)
19. Turbidity	207	20. ■NTU

Laboratory:

21. Name ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-1
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/21/2015

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 465.87
Depth to water(below datum)*: 10.50
4. Water level elevation*: 455.37

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ☐yes ■ no (check one)
9. How long before sampling? 3
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.41		
15. Spec. cond.	4.45	16. ■ mS/cm	
17. Temp.	23.68	18. ☐ F or ■ C	(check one)
19. Turbidity	47.9	20. ■NTU	

Laboratory:

21. Name ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-2
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/23/2015

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 442.15
Depth to water(below datum)*: 10.70
4. Water level elevation*: 431.45

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2.5
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	6.55	
15. Spec. cond.	12.7	16. ■ mS/cm
17. Temp.	23.09	18. ☐ F or ■ C (check one)
19. Turbidity	0	20. ■ NTU

Laboratory:

21. Name: ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-3
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/1/2010

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 430.06
Depth to water(below datum)*: 9.00
4. Water level elevation*: 421.06

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.15		
15. Spec. cond.	6.55	16. ■ mS/cm	
17. Temp.	24.73	18. ☐ F or ■ C	(check one)
19. Turbidity	1.8	20. ■NTU	

Laboratory:

21. Name: ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-4
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 436.91
Depth to water(below datum)*: 10.60
4. Water level elevation*: 426.31

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	6.69	
15. Spec. cond.	8.03	16. ■ mS/cm
17. Temp.	24.21	18. ☐ F or ■ C (check one)
19. Turbidity	13.5	20. ■NTU

Laboratory:

21. Name ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl)

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-5
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 11/22/2022
Date of water level measurements: 6/1/2023
Datum reference point: Top of Casing
Datum elevation*: 454.52
Depth to water(below datum)*: 21.50
4. Water level elevation*: 433.02

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2.5
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH	7.54		
15. Spec. cond.	8.82	16. ■ mS/cm	
17. Temp.	27.35	18. ☐ F or ■ C	(check one)
19. Turbidity	8.6	20. ■NTU	

Laboratory:

21. Name ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: DUP
3. Date of sampling: 6/1/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: N/A
Installation date: N/A

Most recent previous sampling: N/A
Date of water level measurements: N/A
Datum reference point: Top of Casing
Datum elevation*: N/A
Depth to water(below datum)*: N/A
4. Water level elevation*: N/A

5. Purging/Sampling method: N/A (Enter bailer or pump)
Were low-flow methods used? ☐ yes ☐ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: N/A
7. Was the well dry before purging? ☐yes ☐ no (check one)
8. Was the well dry after purging? ☐ yes ☐ no (check one)
9. How long before sampling? N/A
10. Unit of measure? N/A (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Duplicate
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH N/A
15. Spec. cond. N/A
16. ☐ mS/cm
17. Temp. N/A
18. ☐ F or ☐ C (check one)
19. Turbidity N/A
20. ☐NTU

Laboratory:

21. Name ALS Environmental Phone: (281) 530-5656
Address: 10450 Stancliff Rd., Suite 210 Houston, TX 77099

Representative's Signature: Elizabeth Beall Date: 6/10/2023

Site Operator's Signature: [signature] Date: 6/16/23

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: BW-1
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/22/2015

Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 485.57
Depth to water(below datum)*: 16.60
4. Water level elevation*: 468.97

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 3
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:	3 gallons	5 gallons	10 gallons	Sample	
14. pH	6.25	6.93	7.02	7.15	
15. Spec. cond.	8.72	8.97	8.85	8.43	(mS/cm)
17. Temp.	19.50	20.15	20.31	23.01	(C)
19. Turbidity	568	919	912	164	(NTU)

Laboratory:

20. Name: Eurofins Test America
Address: 4145 Greenbriar Drive, Stafford, TX 77477
Phone: (281) 530-5656

Representative's Signature: Elizabeth Beall Date: 1/2/2024

Site Operator's Signature: Luke Johnson Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-1
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/21/2015

Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 465.87
Depth to water(below datum)*: 11.54
4. Water level elevation*: 454.33

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 1.94
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ■yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

	4 gallons	7 gallons	8 gallons	Sample	
14. pH	6.97	6.94	6.95	7.17	
15. Spec. cond.	4.53	4.58	4.76	4.69	(mS/cm)
17. Temp.	21.22	21.45	21.36	23.31	(C)
19. Turbidity	22.1	171	443	8.8	(NTU)

Laboratory:

20. Name: Eurofins Test America
Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall
Date: 1/2/2024

Site Operator's Signature: Luke Johnson
Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-2
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/23/2015

Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 442.15
Depth to water(below datum)*: 12.73
4. Water level elevation*: 429.42

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.53
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:	2 gallons	3 gallons	4 gallons	Sample	
14. pH	6.56	6.57	6.69	6.84	
15. Spec. cond.	7.47	12.40	13.90	8.81	(mS/cm)
17. Temp.	22.23	22.58	21.98	23.24	(C)
19. Turbidity	4.8	3.4	177	11.7	(NTU)

Laboratory:

20. Name: Eurofins Test America
Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall
Date: 1/2/2024

Site Operator's Signature: Luke Johnson
Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan
1. Facility Type: Power Station
2. Monitor well no.: MW-3
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 9/1/2010
Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 430.06
Depth to water(below datum)*: 11.72
4. Water level elevation*: 418.34

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ☐ yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Detection
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:	1 gallons	2 gallons	3 gallons	Sample	
14. pH	6.94	6.54	6.57	6.45	
15. Spec. cond.	7.73	7.37	7.26	7.09	(mS/cm)
17. Temp.	22.27	22.65	22.76	22.54	(C)
19. Turbidity	6.2	19.4	36.2	9.2	(NTU)

Laboratory:

20. Name: Eurofins Test America
Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall
Date: 1/2/2024

Site Operator's Signature: Luke Johnson
Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: MW-4
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020

Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 436.91
Depth to water(below datum)*: 15.80
4. Water level elevation*: 421.11

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 3.0
7. Was the well dry before purging? ☐yes ■ no (check one)
8. Was the well dry after purging? ☐yes ■ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:	2 gallons	4 gallons	6 gallons	Sample	
14. pH	6.91	6.89	6.89	7.33	
15. Spec. cond.	8.55	8.48	8.62	7.83	(mS/cm)
17. Temp.	21.41	21.38	21.49	22.28	(C)
19. Turbidity	2.9	0.9	8.4	0.0	(NTU)

Laboratory:

20. Name: Eurofins Test America
Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall
Date: 1/2/2024

Site Operator's Signature: Luke Johnson
Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl)

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan
1. Facility Type: Power Station
2. Monitor well no.: MW-5
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: Good
Installation date: 11/2/2020
Most recent previous sampling: 6/1/2023
Date of water level measurements: 12/20/2023
Datum reference point: Top of Casing
Datum elevation*: 454.52
Depth to water(below datum)*: 15.80
4. Water level elevation*: 438.72

5. Purging/Sampling method: Bailer (Enter bailer or pump)
Were low-flow methods used? ☐ yes ■ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: 2.56
7. Was the well dry before purging? ☐ yes ■ no (check one)
8. Was the well dry after purging? ■ yes ☐ no (check one)
9. How long before sampling? 2
10. Unit of measure? hours (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Regular
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

	3 gallons	6 gallons	7.5 gallons	Sample	
14. pH	7.42	7.11	7.02	7.27	
15. Spec. cond.	9.00	9.91	11.00	9.19	(mS/cm)
17. Temp.	21.56	21.72	21.91	21.92	(C)
19. Turbidity	10.6	5.5	52.5	10.6	(NTU)

Laboratory:

20. Name: Eurofins Test America
Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall
Date: 1/2/024

Site Operator's Signature: Luke Johnson
Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Groundwater Monitoring Form

Facility name: Sandy Creek Energy Station
Permittee: Sandy Creek Energy Associates, L.P.
County: McLennan

1. Facility Type: Power Station
2. Monitor well no.: DUP
3. Date of sampling: 12/20/2023

Name of sampler: Elizabeth Beall
Affiliation of sampler: SCS Engineers
If split sampled, with whom? N/A
Integrity of well: N/A
Installation date: N/A

Most recent previous sampling: N/A
Date of water level measurements: N/A
Datum reference point: Top of Casing
Datum elevation*: N/A
Depth to water(below datum)*: N/A
4. Water level elevation*: N/A

5. Purging/Sampling method: N/A (Enter bailer or pump)
Were low-flow methods used? ☐ yes ☐ no (check one)
If yes, what volume was purged? N/A gal.
6. Well volumes purged: N/A
7. Was the well dry before purging? ☐ yes ☐ no (check one)
8. Was the well dry after purging? ☐ yes ☐ no (check one)
9. How long before sampling? N/A
10. Unit of measure? N/A (Enter value as days, hours, or mins.)

11. Sample event: Background
- Background - Corrective Action
- Detection - Other
- Assessment

12. Sample schedule: Semi-Annual
- Quarterly - Fourth Year
- Semi-Annual - Other
- Annual

13. Sample type: Duplicate
- Regular - Split
- Duplicate - Other
- Resample

Field Measurements:

14. pH N/A
15. Spec. cond. N/A
16. ☐ mS/cm
17. Temp. N/A
18. ☐ F or ☐ C (check one)
19. Turbidity N/A
20. ☐ NTU

Laboratory:

20. Name Eurofins Test America Phone: (281) 530-5656
Address: 4145 Greenbriar Drive, Stafford, TX 77477

Representative's Signature: Elizabeth Beall Date: 1/2/2024

Site Operator's Signature: Luke Johnson Date: 1/2/24

* Report depth to water and elevations to nearest 0.01 foot relative to mean sea level (msl).

Appendix B

2023 Laboratory Reports with Chain of Custody Forms

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 20, 2023

Gil Gabaldon
SCS Engineers
1901 Central Drive
Suite 550
Bedford, TX 76021

Work Order: **HS23060134**

Laboratory Results for: **Sandy Creek Groundwater 16215106**

Dear Gil Gabaldon,

ALS Environmental received 7 sample(s) on Jun 02, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
James Guin

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Work Order: HS23060134

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23060134-01	BW-1	Groundwater		01-Jun-2023 13:00	02-Jun-2023 09:15	☐
HS23060134-02	MW-1	Groundwater		01-Jun-2023 13:22	02-Jun-2023 09:15	☐
HS23060134-03	MW-2	Groundwater		01-Jun-2023 13:58	02-Jun-2023 09:15	☐
HS23060134-04	MW-3	Groundwater		01-Jun-2023 14:23	02-Jun-2023 09:15	☐
HS23060134-05	MW-4	Groundwater		01-Jun-2023 14:10	02-Jun-2023 09:15	☐
HS23060134-06	MW-5	Groundwater		01-Jun-2023 13:41	02-Jun-2023 09:15	☐
HS23060134-07	DUP	Groundwater		01-Jun-2023 14:10	02-Jun-2023 09:15	☐

Client: SCS Engineers **CASE NARRATIVE**
Project: Sandy Creek Groundwater 16215106
Work Order: HS23060134

Work Order Comments

• Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.

The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

Metals by Method SW6020A

Batch ID: 195330

Sample ID: HS23060634-01MS

• MS and MSD are for an unrelated sample

WetChemistry by Method SW9056

Batch ID: R437883

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9040C

Batch ID: R437788

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C

Batch ID: R437412,R437414

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: BW-1
Collection Date: 01-Jun-2023 13:00

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**3,440**		**220**	**400**	**ug/L**	20	20-Jun-2023 13:35
Calcium	**528,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:35
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**8,660**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:34
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.53**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:12
Temp Deg C @pH	**24.1**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:12
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**1,210**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 00:05
Fluoride	**0.864**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 00:00
Sulfate	**3,220**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 00:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers

ANALYTICAL REPORT

Project: Sandy Creek Groundwater 16215106 WorkOrder:HS23060134

Sample ID: MW-1 Lab ID:HS23060134-02

Collection Date: 01-Jun-2023 13:22 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**1,170**		**22.0**	**40.0**	**ug/L**	2	19-Jun-2023 21:26
Calcium	**491,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:37
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**4,750**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:34
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.44**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:17
Temp Deg C @pH	**23.8**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:17
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**153**		**1.00**	**2.50**	**mg/L**	5	15-Jun-2023 00:11
Fluoride	**1.20**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 00:11
Sulfate	**2,730**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 00:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: MW-2
Collection Date: 01-Jun-2023 13:58

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**1,290**		**22.0**	**40.0**	**ug/L**	2	19-Jun-2023 21:28
Calcium	**509,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:38
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**12,800**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:37
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.35**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:19
Temp Deg C @pH	**23.7**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:19
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**2,810**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 00:29
Fluoride	**0.944**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 00:23
Sulfate	**3,760**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 00:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: MW-3
Collection Date: 01-Jun-2023 14:23

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**1,180**		**22.0**	**40.0**	**ug/L**	2	19-Jun-2023 21:30
Calcium	**491,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:40
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**7,840**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:37
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.11**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:21
Temp Deg C @pH	**23.7**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:21
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**293**		**1.00**	**2.50**	**mg/L**	5	15-Jun-2023 01:03
Fluoride	**1.00**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 01:03
Sulfate	**3,430**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 01:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: MW-4
Collection Date: 01-Jun-2023 14:10

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**4,970**		**220**	**400**	**ug/L**	20	20-Jun-2023 13:42
Calcium	**372,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:42
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**1,560**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:37
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.84**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:23
Temp Deg C @pH	**23.7**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:23
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**300**		**4.00**	**10.0**	**mg/L**	20	15-Jun-2023 01:21
Fluoride	**0.285**		**0.0500**	**0.100**	**mg/L**	1	15-Jun-2023 01:15
Sulfate	**792**		**4.00**	**10.0**	**mg/L**	20	15-Jun-2023 01:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: MW-5
Collection Date: 01-Jun-2023 13:41

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**2,600**		**220**	**400**	**ug/L**	20	20-Jun-2023 13:44
Calcium	**470,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:44
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**9,160**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:37
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.86**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:25
Temp Deg C @pH	**23.7**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:25
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**1,280**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 01:32
Fluoride	**1.14**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 01:27
Sulfate	**3,740**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 01:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
Sample ID: DUP
Collection Date: 01-Jun-2023 14:10

ANALYTICAL REPORT
WorkOrder:HS23060134
Lab ID:HS23060134-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 16-Jun-2023		Analyst: JC
Boron	**5,220**		**220**	**400**	**ug/L**	20	20-Jun-2023 13:46
Calcium	**407,000**		**680**	**10000**	**ug/L**	20	20-Jun-2023 13:46
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	**8,520**		**5.00**	**10.0**	**mg/L**	1	07-Jun-2023 14:37
PH BY SW9040C		**Method:SW9040C**					Analyst: DW
pH	**7.68**	H	**0.100**	**0.100**	**pH Units**	1	12-Jun-2023 20:33
Temp Deg C @pH	**23.6**	H	**0**	**0**	**DEG C**	1	12-Jun-2023 20:33
ANIONS BY SW9056A		**Method:SW9056**					Analyst: TH
Chloride	**1,230**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 01:44
Fluoride	**0.948**		**0.250**	**0.500**	**mg/L**	5	15-Jun-2023 01:38
Sulfate	**3,260**		**20.0**	**50.0**	**mg/L**	100	15-Jun-2023 01:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

Batch ID: 195330 **Start Date:** 16 Jun 2023 13:30 **End Date:** 16 Jun 2023 13:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23060134-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23060134-07		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 195330 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Groundwater	
HS23060134-01	BW-1	01 Jun 2023 13:00		16 Jun 2023 13:30	20 Jun 2023 13:35	20
HS23060134-02	MW-1	01 Jun 2023 13:22		16 Jun 2023 13:30	20 Jun 2023 13:37	20
HS23060134-02	MW-1	01 Jun 2023 13:22		16 Jun 2023 13:30	19 Jun 2023 21:26	2
HS23060134-03	MW-2	01 Jun 2023 13:58		16 Jun 2023 13:30	20 Jun 2023 13:38	20
HS23060134-03	MW-2	01 Jun 2023 13:58		16 Jun 2023 13:30	19 Jun 2023 21:28	2
HS23060134-04	MW-3	01 Jun 2023 14:23		16 Jun 2023 13:30	20 Jun 2023 13:40	20
HS23060134-04	MW-3	01 Jun 2023 14:23		16 Jun 2023 13:30	19 Jun 2023 21:30	2
HS23060134-05	MW-4	01 Jun 2023 14:10		16 Jun 2023 13:30	20 Jun 2023 13:42	20
HS23060134-06	MW-5	01 Jun 2023 13:41		16 Jun 2023 13:30	20 Jun 2023 13:44	20
HS23060134-07	DUP	01 Jun 2023 14:10		16 Jun 2023 13:30	20 Jun 2023 13:46	20
Batch ID: R437412 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Groundwater	
HS23060134-01	BW-1	01 Jun 2023 13:00			07 Jun 2023 14:34	1
HS23060134-02	MW-1	01 Jun 2023 13:22			07 Jun 2023 14:34	1
Batch ID: R437414 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Groundwater	
HS23060134-03	MW-2	01 Jun 2023 13:58			07 Jun 2023 14:37	1
HS23060134-04	MW-3	01 Jun 2023 14:23			07 Jun 2023 14:37	1
HS23060134-05	MW-4	01 Jun 2023 14:10			07 Jun 2023 14:37	1
HS23060134-06	MW-5	01 Jun 2023 13:41			07 Jun 2023 14:37	1
HS23060134-07	DUP	01 Jun 2023 14:10			07 Jun 2023 14:37	1
Batch ID: R437788 (0)	**Test Name :** PH BY SW9040C				**Matrix:** Groundwater	
HS23060134-01	BW-1	01 Jun 2023 13:00			12 Jun 2023 20:12	1
HS23060134-02	MW-1	01 Jun 2023 13:22			12 Jun 2023 20:17	1
HS23060134-03	MW-2	01 Jun 2023 13:58			12 Jun 2023 20:19	1
HS23060134-04	MW-3	01 Jun 2023 14:23			12 Jun 2023 20:21	1
HS23060134-05	MW-4	01 Jun 2023 14:10			12 Jun 2023 20:23	1
HS23060134-06	MW-5	01 Jun 2023 13:41			12 Jun 2023 20:25	1
HS23060134-07	DUP	01 Jun 2023 14:10			12 Jun 2023 20:33	1

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R437883 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS23060134-01	BW-1	01 Jun 2023 13:00			15 Jun 2023 00:05	100
HS23060134-01	BW-1	01 Jun 2023 13:00			15 Jun 2023 00:00	5
HS23060134-02	MW-1	01 Jun 2023 13:22			15 Jun 2023 00:17	100
HS23060134-02	MW-1	01 Jun 2023 13:22			15 Jun 2023 00:11	5
HS23060134-03	MW-2	01 Jun 2023 13:58			15 Jun 2023 00:29	100
HS23060134-03	MW-2	01 Jun 2023 13:58			15 Jun 2023 00:23	5
HS23060134-04	MW-3	01 Jun 2023 14:23			15 Jun 2023 01:09	100
HS23060134-04	MW-3	01 Jun 2023 14:23			15 Jun 2023 01:03	5
HS23060134-05	MW-4	01 Jun 2023 14:10			15 Jun 2023 01:21	20
HS23060134-05	MW-4	01 Jun 2023 14:10			15 Jun 2023 01:15	1
HS23060134-06	MW-5	01 Jun 2023 13:41			15 Jun 2023 01:32	100
HS23060134-06	MW-5	01 Jun 2023 13:41			15 Jun 2023 01:27	5
HS23060134-07	DUP	01 Jun 2023 14:10			15 Jun 2023 01:44	100
HS23060134-07	DUP	01 Jun 2023 14:10			15 Jun 2023 01:38	5

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: 195330 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-195330** Units: **mg/L** Analysis Date: **19-Jun-2023 20:51**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370984** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	< 0.0110	0.0200								
Calcium	< 0.0340	0.500								

LCS Sample ID: **LCS-195330** Units: **mg/L** Analysis Date: **19-Jun-2023 20:54**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370986** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4823	0.0200	0.5	0	96.5	80 - 120				
Calcium	4.581	0.500	5	0	91.6	80 - 120				

LCSD Sample ID: **LCSD-195330** Units: **mg/L** Analysis Date: **19-Jun-2023 20:56**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370987** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4942	0.0200	0.5	0	98.8	80 - 120	0.4823	2.44	20	
Calcium	5.122	0.500	5	0	102	80 - 120	4.581	11.2	20	

MS Sample ID: **HS23060634-01MS** Units: **mg/L** Analysis Date: **19-Jun-2023 21:06**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370992** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7303	0.0200	0.5	0.2278	100	80 - 120				
Calcium	405.1	0.500	5	404.8	5.98	80 - 120				SEO

MSD Sample ID: **HS23060634-01MSD** Units: **mg/L** Analysis Date: **19-Jun-2023 21:08**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370993** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7512	0.0200	0.5	0.2278	105	80 - 120	0.7303	2.83	20	
Calcium	405.7	0.500	5	404.8	17.5	80 - 120	405.1	0.143	20	SEO

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: 195330 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS23060634-01PDS** Units: **mg/L** Analysis Date: **19-Jun-2023 21:10**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370994** PrepDate: **16-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7071	0.0200	0.5	0.2278	95.8	75 - 125				

PDS Sample ID: **HS23060634-01PDS** Units: **mg/L** Analysis Date: **20-Jun-2023 11:54**
Client ID: Run ID: **ICPMS06_439329** SeqNo: **7372400** PrepDate: **16-Jun-2023** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	842.9	25.0	500	372.2	94.1	75 - 125				

SD Sample ID: **HS23060634-01SD** Units: **mg/L** Analysis Date: **19-Jun-2023 21:04**
Client ID: Run ID: **ICPMS06_439223** SeqNo: **7370991** PrepDate: **16-Jun-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.2312	0.100					0.2278	1.49	10	

SD Sample ID: **HS23060634-01SD** Units: **mg/L** Analysis Date: **20-Jun-2023 11:52**
Client ID: Run ID: **ICPMS06_439329** SeqNo: **7372399** PrepDate: **16-Jun-2023** DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	381.5	125					372.2	2.49	10	

The following samples were analyzed in this batch:

HS23060134-01	HS23060134-02	HS23060134-03	HS23060134-04
HS23060134-05	HS23060134-06	HS23060134-07	

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: R437412 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-060723** Units: **mg/L** Analysis Date: **07-Jun-2023 14:34**
Client ID: Run ID: **Balance1_437412** SeqNo: **7352264** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **LCS-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 14:34**
Client ID: Run ID: **Balance1_437412** SeqNo: **7352263** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1090	10.0	1000	0	109	85 - 115				

DUP Sample ID: **HS23060242-01DUP** Units: **mg/L** Analysis Date:
Client ID: Run ID: **Balance1_437412** SeqNo: **7352252** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1108	10.0					1104	0.362	20	

DUP Sample ID: **HS23060123-10DUP** Units: **mg/L** Analysis Date: **07-Jun-2023 14:34**
Client ID: Run ID: **Balance1_437412** SeqNo: **7352244** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	188	10.0					186	1.07	20	

The following samples were analyzed in this batch: HS23060134-01 HS23060134-02

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: R437414 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WBLK-060723** Units: **mg/L** Analysis Date: **07-Jun-2023 14:37**
Client ID: Run ID: **Balance1_437414** SeqNo: **7352311** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	< 5.00	10.0								

LCS Sample ID: **LCS-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 14:37**
Client ID: Run ID: **Balance1_437414** SeqNo: **7352310** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1076	10.0	1000	0	108	85 - 115				

DUP Sample ID: **HS23060134-04DUP** Units: **mg/L** Analysis Date: **07-Jun-2023 14:37**
Client ID: **MW-3** Run ID: **Balance1_437414** SeqNo: **7352292** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	7860	10.0					7840	0.255	20	

The following samples were analyzed in this batch: HS23060134-03 HS23060134-04 HS23060134-05 HS23060134-06 HS23060134-07

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: **R437788 (0)** **Instrument:** **Skalar 03** **Method:** **PH BY SW9040C**

DUP Sample ID: **HS23060134-01DUP** Units: **pH Units** Analysis Date: **12-Jun-2023 20:15**
Client ID: **BW-1** Run ID: **Skalar 03_437788** SeqNo: **7360473** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.55	0.100					7.53	0.265	10	
Temp Deg C @pH	24	0					24.1	0.416	10	

The following samples were analyzed in this batch: HS23060134-01 HS23060134-02 HS23060134-03 HS23060134-04
HS23060134-05 HS23060134-06 HS23060134-07

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: HS23060134

QC BATCH REPORT

Batch ID: R437883 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **14-Jun-2023 22:04**
Client ID: Run ID: **ICS-Integrion_437883** SeqNo: **7362559** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	< 0.200	0.500								
Fluoride	< 0.0500	0.100								
Sulfate	< 0.200	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **14-Jun-2023 22:09**
Client ID: Run ID: **ICS-Integrion_437883** SeqNo: **7362560** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.96	0.500	20	0	105	80 - 120				
Fluoride	4.316	0.100	4	0	108	80 - 120				
Sulfate	20.95	0.500	20	0	105	80 - 120				

MS Sample ID: **HS23060842-03MS** Units: **mg/L** Analysis Date: **14-Jun-2023 22:27**
Client ID: Run ID: **ICS-Integrion_437883** SeqNo: **7362562** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.21	0.500	10	2.123	101	80 - 120				
Fluoride	2.451	0.100	2	0.2249	111	80 - 120				
Sulfate	12.2	0.500	10	2.026	102	80 - 120				

MSD Sample ID: **HS23060842-03MSD** Units: **mg/L** Analysis Date: **14-Jun-2023 22:33**
Client ID: Run ID: **ICS-Integrion_437883** SeqNo: **7362563** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.22	0.500	10	2.123	101	80 - 120	12.21	0.0491	20	
Fluoride	2.42	0.100	2	0.2249	110	80 - 120	2.451	1.31	20	
Sulfate	12.19	0.500	10	2.026	102	80 - 120	12.2	0.0779	20	

The following samples were analyzed in this batch: HS23060134-01 HS23060134-02 HS23060134-03 HS23060134-04 HS23060134-05 HS23060134-06 HS23060134-07

Client: SCS Engineers
Project: Sandy Creek Groundwater 16215106
WorkOrder: **HS23060134**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

Sample Receipt Checklist

Work Order ID: HS23060134 **Date/Time Received:** **02-Jun-2023 09:15**

Client Name: SCS ENGINEERS - Bedford TX **Received by:** **Malcolm Burleson**

Completed By:	/S/ Corey Grandits	02-Jun-2023 14:46	**Reviewed by:**	/S/ James Guin	04-Jun-2023 14:06
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:241261
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.1UC/1.0C	IR31	
Cooler(s)/Kit(s):	48638		
Date/Time sample(s) sent to storage:	6/2/23		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 241261

HS23060134

SCS Engineers

Sandy Creek Groundwater 16215106

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	16-DA02009 16221023.00 Task 3	Project Name	Sandy Creek
Work Order		Project Number	16221023.00 Task 3
Company Name	SCS Engineers	Bill To Company	SCS Engineers
Send Report To	Gil Gabaldon	Invoice Attn	Krystal Kuntz - A/P
Address	1901 Central Drive Suite 550	Address	1901 Central Drive Suite 550
City/State/Zip	Bedford, TX 76021	City/State/Zip	Bedford TX 76021
Phone	(817) 571-2288	Phone	(817) 571-2288
Fax		Fax	
e-Mail Address	GGabaldon@scsengineers.com	e-Mail Address	kkuntz@scsengineers.com

	A	B	C	D	E	F	G	H	I	J
A	pH_W_9040C (9040 pH) [250ml-P-Neat-shared]									
B	9056_anions_W (9056 Cl, F, SO4) [250ml-P-Neat-shared]									
C	TDS_W 2540C (2540C TDS) [250ml-P-Neat-shared]									
D	ICP_TW (6020 B, Ca) [120ml-P-HNO3]									

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	BW-1	6/1/23	13:00	Groundwa	2,8	2	X	X	X	X							
2	MW-1	6/1/23	13:22	Groundwa	2,8	2	X	X	X	X							
3	MW-2	6/1/23	13:58	Groundwa	2,8	2	X	X	X	X							
4	MW-3	6/1/23	14:23	Groundwa	2,8	2	X	X	X	X							
5	MW-4	6/1/23	14:10	Groundwa	2,8	2	X	X	X	X							
6	MW-5	6/1/23	13:41	Groundwa	2,8	2	X	X	X	X							
7	DUP	6/1/23	14:10	Groundwa	2,8	2	X	X	X	X							
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Elizabeth Beall & Kenna Nava

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ____ ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

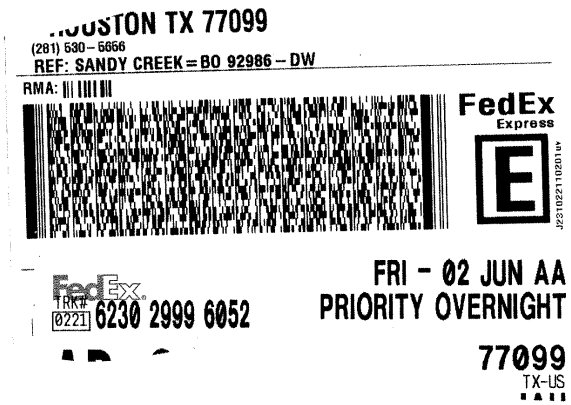
Relinquished by: Elizabeth Beall	Date: 6/1/23	Time: 14:53	Received by:	Notes: SCS Sandy Creek
Relinquished by:	Date:	Time:	Received by (Laboratory): 06032023 CAIS	Cooler ID: 48638 / Cooler Temp.: 1R31 1.1WC
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)

- ☒ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



GEL Laboratories LLC

a member of The GEL Group INC

September 06, 2023

Asher Boudreaux
SCS Engineers
1901 Central Drive
Suite 550
Bedford, Texas 76021

Re: Radchem Analytical
Work Order: 634509

Dear Asher Boudreaux:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The containers were received out of temperature specifications..

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Jordan Melton

Jordan Melton for
Delaney Stone
Project Manager

Purchase Order: GELP22-1466
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

SCSE004 SCS Engineers

Client SDG: 634509 GEL Work Order: 634509

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL

H Analytical holding time was exceeded

J Value is estimated

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stone.

Reviewed by Jordan Melton

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2023

Company : SCS Engineers
Address : 1901 Central Drive
Suite 550
Bedford, Texas 76021
Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: BW-1
Sample ID: 634509001
Matrix: Ground Water
Collect Date: 22-AUG-23 16:00
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Anions "As Received"												
Chloride		1050	16.8	50.0	mg/L		250	JLD1	08/24/23	1746	2481898	1
Sulfate		2740	33.3	100	mg/L		250					
Fluoride	U	ND	0.330	1.00	mg/L		10	JLD1	08/24/23	1435	2481898	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0670	0.200	ug/L	1.00	1	JP2	08/28/23	0903	2482668	3
Metals Analysis-ICP												
SW846 3010A/6010D Metals Scan Liquid "As Received"												
Antimony	J	7.66	3.50	20.0	ug/L	1.00	1	JWJ	09/06/23	1518	2481914	4
Arsenic	J	11.2	5.00	30.0	ug/L	1.00	1					
Barium		16.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Boron		2880	15.0	50.0	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Chromium	J	2.80	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Molybdenum	U	ND	2.00	10.0	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Calcium		539000	100	400	ug/L	1.00	2	JWJ	09/06/23	1550	2481914	5
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Lithium		741	3.00	10.0	ug/L	1.00	1	PRB	09/06/23	1452	2481915	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		6250	23.8	100	mg/L			CH6	08/25/23	0938	2482652	7
Titration and Ion Analysis												
SW9040C pH "As Received"												
pH at Temp 19.3C	H	7.18	0.0100	0.100	SU		1	JW2	08/24/23	1432	2482132	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	SW846 3010A for 6010D	JD2	09/05/23	0810	2481912

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	BW-1	Project:	SCSE00422
Sample ID:	634509001	Client ID:	SCSE004

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		EK1	08/25/23		1050	2482660				
SW846 3010A		SW 846 3010 Acid Digestion		JD2	09/05/23		0810	2481913				

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 9056A	
3	SW846 7470A	
4	SW846 3010A/6010D	
5	SW846 3010A/6010D	
6	SW846 3010A/6020B	
7	SM 2540C	
8	SW846 9040C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-1	Project:	SCSE00422
Sample ID:	634509002	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 16:15		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Anions "As Received"												
Sulfate		2340	33.3	100	mg/L		250	JLD1	08/24/23	1850	2481898	1
Chloride		132	3.35	10.0	mg/L		50	JLD1	08/24/23	1818	2481898	2
Fluoride	J	0.581	0.330	1.00	mg/L		10	JLD1	08/24/23	1507	2481898	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0670	0.200	ug/L	1.00	1	JP2	08/28/23	0904	2482668	4
Metals Analysis-ICP												
SW846 3010A/6010D Metals Scan Liquid "As Received"												
Calcium		506000	100	400	ug/L	1.00	2	JWJ	09/06/23	1601	2481914	5
Antimony	J	7.44	3.50	20.0	ug/L	1.00	1	JWJ	09/06/23	1536	2481914	6
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		10.5	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Boron		1120	15.0	50.0	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Lead	J	4.77	3.30	20.0	ug/L	1.00	1					
Molybdenum	U	ND	2.00	10.0	ug/L	1.00	1					
Selenium		80.1	6.00	30.0	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Lithium		382	3.00	10.0	ug/L	1.00	1	PRB	09/06/23	1510	2481915	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		4310	23.8	100	mg/L			CH6	08/25/23	0938	2482652	8
Titration and Ion Analysis												
SW9040C pH "As Received"												
pH at Temp 19.3C	H	7.37	0.0100	0.100	SU		1	JW2	08/24/23	1433	2482132	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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Certificate of Analysis

Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-1	Project:	SCSE00422
Sample ID:	634509002	Client ID:	SCSE004

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3010A		SW 846 3010 Acid Digestion		JD2	09/05/23		0810		2481913			
SW846 3010A		SW846 3010A for 6010D		JD2	09/05/23		0810		2481912			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 9056A	
3	SW846 9056A	
4	SW846 7470A	
5	SW846 3010A/6010D	
6	SW846 3010A/6010D	
7	SW846 3010A/6020B	
8	SM 2540C	
9	SW846 9040C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-2	Project:	SCSE00422
Sample ID:	634509003	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 13:40		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Anions "As Received"												
Fluoride	J	0.577	0.330	1.00	mg/L		10	JLD1	08/24/23	1538	2481898	1
Chloride		1550	16.8	50.0	mg/L		250	JLD1	08/24/23	1922	2481898	2
Sulfate		2290	33.3	100	mg/L		250					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0670	0.200	ug/L	1.00	1	JP2	08/28/23	0906	2482668	3
Metals Analysis-ICP												
SW846 3010A/6010D Metals Scan Liquid "As Received"												
Antimony	J	7.71	3.50	20.0	ug/L	1.00	1	JWJ	09/06/23	1539	2481914	4
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		19.4	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Boron		1400	15.0	50.0	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Molybdenum	U	ND	2.00	10.0	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Calcium		650000	100	400	ug/L	1.00	2	JWJ	09/06/23	1604	2481914	5
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Lithium		512	3.00	10.0	ug/L	1.00	1	PRB	09/06/23	1514	2481915	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		7700	23.8	100	mg/L			CH6	08/25/23	0938	2482652	7
Titration and Ion Analysis												
SW9040C pH "As Received"												
pH at Temp 19.8C	H	6.74	0.0100	0.100	SU		1	JW2	08/24/23	1435	2482132	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	08/25/23	1050	2482660

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Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-2	Project:	SCSE00422
Sample ID:	634509003	Client ID:	SCSE004

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3010A		SW846 3010A for 6010D		JD2	09/05/23		0810		2481912			
SW846 3010A		SW 846 3010 Acid Digestion		JD2	09/05/23		0810		2481913			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 9056A	
3	SW846 7470A	
4	SW846 3010A/6010D	
5	SW846 3010A/6010D	
6	SW846 3010A/6020B	
7	SM 2540C	
8	SW846 9040C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-3	Project:	SCSE00422
Sample ID:	634509004	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 14:10		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Anions "As Received"												
Chloride		287	3.35	10.0	mg/L		50	JLD1	08/24/23	1954	2481898	1
Fluoride	J	0.476	0.330	1.00	mg/L		10	JLD1	08/24/23	1610	2481898	2
Sulfate		3120	33.3	100	mg/L		250	JLD1	08/24/23	2026	2481898	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0670	0.200	ug/L	1.00	1	AXS5	09/06/23	1409	2487099	4
Metals Analysis-ICP												
SW846 3010A/6010D Metals Scan Liquid "As Received"												
Antimony	U	ND	3.50	20.0	ug/L	1.00	1	JWJ	09/06/23	1542	2481914	5
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		11.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Boron		1130	15.0	50.0	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.33	1.00	5.00	ug/L	1.00	1					
Lead	J	7.21	3.30	20.0	ug/L	1.00	1					
Molybdenum	U	ND	2.00	10.0	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Calcium		533000	100	400	ug/L	1.00	2	JWJ	09/06/23	1608	2481914	6
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Lithium		1120	60.0	200	ug/L	1.00	20	PRB	09/06/23	1518	2481915	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		5610	23.8	100	mg/L			CH6	08/25/23	0938	2482652	8
Titration and Ion Analysis												
SW9040C pH "As Received"												
pH at Temp 19.7C	H	6.71	0.0100	0.100	SU		1	JW2	08/24/23	1437	2482132	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	EK1	09/05/23	1305	2487095

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Report Date: September 6, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-3	Project:	SCSE00422
Sample ID:	634509004	Client ID:	SCSE004

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3010A		SW 846 3010 Acid Digestion		JD2	09/05/23		0810				2481913	
SW846 3010A		SW846 3010A for 6010D		JD2	09/05/23		0810				2481912	

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 9056A	
3	SW846 9056A	
4	SW846 7470A	
5	SW846 3010A/6010D	
6	SW846 3010A/6010D	
7	SW846 3010A/6020B	
8	SM 2540C	
9	SW846 9040C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : SCS Engineers
Address : 1901 Central Drive
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Bedford, Texas 76021

Report Date: September 6, 2023

Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: BW-1
Sample ID: 634509001
Matrix: Ground Water
Collect Date: 22-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
GFPC Ra228, Liquid "As Received"														
Radium-228		2.67	+/-1.21	1.72	+/-1.39	3.00	pCi/L			JE1	08/28/23	0805	2481985	1
Rad Radium-226														
Lucas Cell, Ra226, Liquid "As Received"														
Radium-226		1.27	+/-0.385	0.298	+/-0.431	1.00	pCi/L			LXP1	09/04/23	0734	2481986	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2481985	84.2	(15%-125%)

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : SCS Engineers
Address : 1901 Central Drive
Suite 550
Bedford, Texas 76021

Report Date: September 6, 2023

Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: MW-1
Sample ID: 634509002
Matrix: Ground Water
Collect Date: 22-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
GFPC Ra228, Liquid "As Received"														
Radium-228		2.16	+/-1.00	1.37	+/-1.14	3.00	pCi/L			JE1	08/28/23	0805	2481985	1
Rad Radium-226														
Lucas Cell, Ra226, Liquid "As Received"														
Radium-226		1.17	+/-0.351	0.243	+/-0.425	1.00	pCi/L			LXP1	09/04/23	0734	2481986	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2481985	84.8	(15%-125%)

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : SCS Engineers
Address : 1901 Central Drive
Suite 550
Bedford, Texas 76021

Report Date: September 6, 2023

Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: MW-2
Sample ID: 634509003
Matrix: Ground Water
Collect Date: 22-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
GFPC Ra228, Liquid "As Received"														
Radium-228		4.08	+/-1.43	1.97	+/-1.76	3.00	pCi/L			JE1	08/28/23	0805	2481985	1
Rad Radium-226														
Lucas Cell, Ra226, Liquid "As Received"														
Radium-226		0.606	+/-0.294	0.319	+/-0.318	1.00	pCi/L			LXP1	09/04/23	0734	2481986	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2481985	88.6	(15%-125%)

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : SCS Engineers
Address : 1901 Central Drive
Suite 550
Bedford, Texas 76021

Report Date: September 6, 2023

Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: MW-3
Sample ID: 634509004
Matrix: Ground Water
Collect Date: 22-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
GFPC Ra228, Liquid "As Received"														
Radium-228		2.84	+/-1.04	1.28	+/-1.27	3.00	pCi/L			JE1	08/28/23	0805	2481985	1
Rad Radium-226														
Lucas Cell, Ra226, Liquid "As Received"														
Radium-226		0.906	+/-0.334	0.337	+/-0.372	1.00	pCi/L			LXP1	09/04/23	0734	2481986	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2481985	84.2	(15%-125%)

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : SCS Engineers
Address : 1901 Central Drive
Suite 550
Bedford, Texas 76021

Report Date: September 6, 2023

Contact: Asher Boudreaux
Project: Radchem Analytical

Client Sample ID: CW-1A
Sample ID: 634509005
Matrix: Surface Water
Collect Date: 22-AUG-23
Receive Date: 24-AUG-23
Collector: Client

Project: SCSE00422
Client ID: SCSE004

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
GFPC Ra228, Liquid "As Received"														
Radium-228		1.45	+/-0.945	1.41	+/-1.02	3.00	pCi/L			JE1	08/28/23	0805	2481985	1
Rad Radium-226														
Lucas Cell, Ra226, Liquid "As Received"														
Radium-226		0.527	+/-0.225	0.175	+/-0.240	1.00	pCi/L			LXP1	09/04/23	0734	2481986	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2481985	82.4	(15%-125%)

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

QC Summary

Report Date: September 6, 2023

SCS Engineers
1901 Central Drive
Suite 550
Bedford, Texas
Contact: **Asher Boudreaux**

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Ion Chromatography										
Batch 2481898										
QC1205497888 634513011 DUP										
Chloride		3.67		3.61	mg/L	1.44		(0%-20%)	JLD1	08/24/23 12:27
Fluoride		0.342		0.362	mg/L	5.66 ^		(+/-0.100)		
Sulfate		28.3		27.9	mg/L	1.29		(0%-20%)		08/24/23 22:01
QC1205497887 LCS										
Chloride	5.00			4.70	mg/L		93.9	(90%-110%)		08/24/23 14:03
Fluoride	2.50			2.48	mg/L		99.1	(90%-110%)		
Sulfate	10.0			9.65	mg/L		96.5	(90%-110%)		
QC1205497886 MB										
Chloride			U	ND	mg/L					08/24/23 13:31
Fluoride			U	ND	mg/L					
Sulfate			U	ND	mg/L					
QC1205497889 634513011 PS										
Chloride	5.00	3.67		8.73	mg/L		101	(90%-110%)		08/24/23 12:59
Fluoride	2.50	0.342		2.87	mg/L		101	(90%-110%)		
Sulfate	10.0	14.1		24.2	mg/L		101	(90%-110%)		08/24/23 22:32

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2481915										
QC1205497919 LCS										
Lithium	50.0			49.9	ug/L		99.9	(80%-120%)	PRB	09/06/23 14:48
QC1205497918 MB										
Lithium			U	ND	ug/L					09/06/23 14:45
QC1205497920 634509001 MS										
Lithium	50.0	741		796	ug/L		N/A	(75%-125%)		09/06/23 14:56
QC1205497921 634509001 MSD										
Lithium	50.0	741		820	ug/L	2.88	N/A	(0%-20%)		09/06/23 14:59
QC1205497922 634509001 SDILT										
Lithium		741		152	ug/L	2.43		(0%-20%)		09/06/23 15:07
Metals Analysis-ICP										
Batch 2481914										
QC1205497914 LCS										
Antimony	500			489	ug/L		97.8	(80%-120%)	JWJ	09/06/23 15:16
Arsenic	500			482	ug/L		96.4	(80%-120%)		
Barium	500			487	ug/L		97.5	(80%-120%)		
Beryllium	500			478	ug/L		95.5	(80%-120%)		
Boron	500			473	ug/L		94.6	(80%-120%)		
Cadmium	500			476	ug/L		95.3	(80%-120%)		
Calcium	5000			4950	ug/L		98.9	(80%-120%)		
Chromium	500			493	ug/L		98.5	(80%-120%)		

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2481914										
Cobalt	500			493	ug/L		98.5	(80%-120%)	JWJ	09/06/23 15:16
Lead	500			480	ug/L		96	(80%-120%)		
Molybdenum	500			516	ug/L		103	(80%-120%)		
Selenium	500			448	ug/L		89.6	(80%-120%)		
Thallium	500			485	ug/L		97	(80%-120%)		
QC1205497913 MB										
Antimony			U	ND	ug/L					09/06/23 15:13
Arsenic			U	ND	ug/L					
Barium			U	ND	ug/L					
Beryllium			U	ND	ug/L					
Boron			U	ND	ug/L					
Cadmium			U	ND	ug/L					
Calcium			U	ND	ug/L					
Chromium			U	ND	ug/L					
Cobalt			U	ND	ug/L					
Lead			U	ND	ug/L					

QC Summary

Workorder: **634509**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2481914											
Molybdenum				U	ND	ug/L				JWJ	09/06/23 15:13
Selenium				U	ND	ug/L					
Thallium				U	ND	ug/L					
QC1205497915 634509001 MS											
Antimony	500	J	7.66		523	ug/L		103	(75%-125%)		09/06/23 15:21
Arsenic	500	J	11.2		538	ug/L		105	(75%-125%)		
Barium	500		16.8		492	ug/L		95.1	(75%-125%)		
Beryllium	500	U	ND		496	ug/L		99.2	(75%-125%)		
Boron	500		2880		3430	ug/L		N/A	(75%-125%)		
Cadmium	500	U	ND		458	ug/L		91.7	(75%-125%)		
Calcium	5000		539000		599000	ug/L		N/A	(75%-125%)		09/06/23 15:54
Chromium	500	J	2.80		477	ug/L		94.8	(75%-125%)		09/06/23 15:21
Cobalt	500	U	ND		476	ug/L		95.1	(75%-125%)		
Lead	500	U	ND		458	ug/L		91.2	(75%-125%)		
Molybdenum	500	U	ND		508	ug/L		101	(75%-125%)		
Selenium	500	U	ND		507	ug/L		100	(75%-125%)		

QC Summary

Workorder: **634509**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2481914											
Thallium	500	U	ND		418	ug/L		83.7	(75%-125%)	JWJ	09/06/23 15:21
QC1205497916 634509001 MSD											
Antimony	500	J	7.66		515	ug/L	1.51	101	(0%-20%)		09/06/23 15:23
Arsenic	500	J	11.2		536	ug/L	0.296	105	(0%-20%)		
Barium	500		16.8		475	ug/L	3.56	91.6	(0%-20%)		
Beryllium	500	U	ND		475	ug/L	4.44	94.9	(0%-20%)		
Boron	500		2880		3290	ug/L	4.03	N/A	(0%-20%)		
Cadmium	500	U	ND		439	ug/L	4.29	87.8	(0%-20%)		
Calcium	5000		539000		574000	ug/L	4.22	N/A	(0%-20%)		09/06/23 15:56
Chromium	500	J	2.80		455	ug/L	4.62	90.5	(0%-20%)		09/06/23 15:23
Cobalt	500	U	ND		468	ug/L	1.77	93.4	(0%-20%)		
Lead	500	U	ND		449	ug/L	1.95	89.4	(0%-20%)		
Molybdenum	500	U	ND		497	ug/L	2.17	99.2	(0%-20%)		
Selenium	500	U	ND		497	ug/L	1.99	98.4	(0%-20%)		
Thallium	500	U	ND		413	ug/L	1.34	82.5	(0%-20%)		

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2481914										
QC1205497917 634509001 SDILT										
Antimony	J	7.66	U	ND	ug/L	N/A		(0%-20%)	JWJ	09/06/23 15:33
Arsenic	J	11.2	U	ND	ug/L	N/A		(0%-20%)		
Barium		16.8	J	3.48	ug/L	3.88		(0%-20%)		
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Boron		2880		565	ug/L	1.94		(0%-20%)		
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Calcium		269000		56300	ug/L	4.46		(0%-20%)		09/06/23 15:58
Chromium	J	2.80	U	ND	ug/L	N/A		(0%-20%)		09/06/23 15:33
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Lead	U	ND	J	3.62	ug/L	N/A		(0%-20%)		
Molybdenum	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 2482668										
QC1205499097 634513006 DUP										
Mercury	U	ND	U	ND	ug/L	N/A			JP2	08/28/23 09:09

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-Mercury										
Batch 2482668										
QC1205499096 LCS										
Mercury	2.00			2.05	ug/L		103	(80%-120%)	JP2	08/28/23 09:01
QC1205499095 MB										
Mercury			U	ND	ug/L					08/28/23 08:59
QC1205499098 634513006 MS										
Mercury	2.00	U ND		1.97	ug/L		98.5	(75%-125%)		08/28/23 09:11
QC1205499099 634513006 SDILT										
Mercury		U ND	U	ND	ug/L	N/A		(0%-10%)		08/28/23 09:12
Batch 2487099										
QC1205507181 634701001 DUP										
Mercury		U ND	U	ND	ug/L	N/A			AXS5	09/06/23 14:13
QC1205507180 LCS										
Mercury	2.00			2.17	ug/L		108	(80%-120%)		09/06/23 14:04
QC1205507179 MB										
Mercury			U	ND	ug/L					09/06/23 14:03
QC1205507182 634701001 MS										
Mercury	2.00	U ND		2.16	ug/L		108	(75%-125%)		09/06/23 14:14
QC1205507183 634701001 SDILT										
Mercury		U ND	U	ND	ug/L	N/A		(0%-10%)		09/06/23 14:16
Solids Analysis										
Batch 2482652										
QC1205499069 634225001 DUP										
Total Dissolved Solids		276		272	mg/L	1.46		(0%-5%)	CH6	08/25/23 09:38

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Solids Analysis										
Batch 2482652										
QC1205499068 LCS										
Total Dissolved Solids	300			300	mg/L		100	(95%-105%)	CH6	08/25/23 09:38
QC1205499067 MB										
Total Dissolved Solids			U	ND	mg/L					08/25/23 09:38
Titration and Ion Analysis										
Batch 2482132										
QC1205498253 634349001 DUP										
pH	H	8.04	H	8.06	SU	0.248		(0%-5%)	JW2	08/24/23 14:01
QC1205498252 LCS										
pH	7.00			7.01	SU		100	(99%-101%)		08/24/23 14:00

Notes:

The Qualifiers in this report are defined as follows:

U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
J	Value is estimated
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
N	Metals--The Matrix spike sample recovery is not within specified control limits
H	Analytical holding time was exceeded
<	Result is less than value reported
>	Result is greater than value reported
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time

FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies

N1 See case narrative

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.

B The target analyte was detected in the associated blank.

e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes

J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Client : **SCS Engineers**
1901 Central Drive
Suite 550
Bedford, Texas

Contact: **Asher Boudreaux**

Workorder: **634509**

Report Date: September 6, 2023

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2481985										
QC1205497983 634501001 DUP										
Radium-228	U	0.809	U	1.17	pCi/L	0		N/A	JE1	08/28/2308:05
	Uncert:	+/-0.714		+/-0.992						
	TPU:	+/-0.743		+/-1.04						
QC1205497984 LCS										
Radium-228	78.1			86.1	pCi/L		110	(75%-125%)	JE1	08/28/2308:05
	Uncert:			+/-4.35						
	TPU:			+/-22.3						
QC1205497982 MB										
Radium-228			U	0.831	pCi/L				JE1	08/28/2308:05
	Uncert:			+/-0.885						
	TPU:			+/-0.910						
Rad Ra-226										
Batch 2481986										
QC1205497986 634509002 DUP										
Radium-226		1.17		1.57	pCi/L	29.5		(0% - 100%)	LXP1	09/04/2307:34
	Uncert:	+/-0.351		+/-0.453						
	TPU:	+/-0.425		+/-0.540						
QC1205497988 LCS										
Radium-226	26.3			26.5	pCi/L		101	(75%-125%)	LXP1	09/04/2308:08
	Uncert:			+/-1.63						
	TPU:			+/-5.66						
QC1205497985 MB										
Radium-226			U	0.325	pCi/L				LXP1	09/04/2307:34
	Uncert:			+/-0.271						
	TPU:			+/-0.276						
QC1205497987 634509002 MS										
Radium-226	126	1.17		143	pCi/L		112	(75%-125%)	LXP1	09/04/2308:08
	Uncert:	+/-0.351		+/-8.25						
	TPU:	+/-0.425		+/-29.1						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
J	Value is estimated
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
H	Analytical holding time was exceeded
<	Result is less than value reported
>	Result is greater than value reported

QC Summary

Workorder: **634509**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time

UI	Gamma Spectroscopy--Uncertain identification
BD	Results are either below the MDC or tracer recovery is low
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
M	M if above MDC and less than LLD
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
FA	Failed analysis.
UJ	Gamma Spectroscopy--Uncertain identification
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
N1	See case narrative
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
**	Analyte is a Tracer compound
M	REMP Result > MDC/CL and < RDL
J	See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
** Indicates analyte is a surrogate/tracer compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Project # 160223032.00
GEL Quote #: SCSE00422
CO Number [1]:
PO Number:

Chain of Custody and Analytical Request

634509

GEL Work Order Number: GEL Project Manager:

2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 27 of 30 SDG: 634509

Client Name: Asher Boudreaux Phone # 817-368-0837

Project/Site Name: Sandy Creek Fax #

Address: 1901 Central Drive, Bedford, TX 76021

Collected By: Asher Boudreaux Send Results To: gcollier@scsengineers.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Ra-226	Ra-228	pH 9040C	9056 anions	SM 2540 C TDS	6020 (B, C, Total Met	7470 Mercury				<-- Preservative Type (6)
BW-1	08-22-23	16:00	N	N	GW			5	X	X	X	X	X	X	X				
MW-1	08-22-23	16:15	N	N	GW			5	X	X	X	X	X	X	X				
MW-2	08-22-23	13:40	N	N	GW			5	X	X	X	X	X	X	X				
MW-3	08-22-23	14:10	N	N	GW			5	X	X	X	X	X	X	X				
CW-1A	08-22-23	14:50	N	N	SW			2	X	X									

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	8/23/23	12:57	1		8/24/23 900
2			2		
3			3		

TAT Requested: Normal: _____ Rush: __X___ Specify: __24 hour__ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No

Select Deliverable: [X] C of A [X] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** _____°C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone : [ ] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

D5

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCSE	**SDG/AR/COC/Work Order:** 634509
Received By: EG	**Date Received:** 8/24/23
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 6847 0900 4917

Suspected Hazard Information	**Yes**	**No**	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 6 **CPM / mR/Hr** **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			✓	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius minimal ice TEMP: 12
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR6-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials JM Date 8-25-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 06 September 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3010A/6010D
Analytical Procedure: GL-MA-E-013 REV# 33
Analytical Batch: 2481914

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 2481912

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
1205497913	Method Blank (MB)**ICP**
1205497914	Laboratory Control Sample (LCS)
1205497917	634509001(BW-1L) Serial Dilution (SD)
1205497915	634509001(BW-1S) Matrix Spike (MS)
1205497916	634509001(BW-1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the calcium concentrations were within the linear calibration range of the instrument. 634509001 (BW-1), 634509002 (MW-1), 634509003 (MW-2) and 634509004 (MW-3).

Analyte	634509			
	001	002	003	004
Calcium	2X	2X	2X	2X

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 36
Analytical Batch: 2481915

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 2481913

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
1205497918	Method Blank (MB)**ICP-MS**
1205497919	Laboratory Control Sample (LCS)
1205497922	634509001(BW-1L) Serial Dilution (SD)
1205497920	634509001(BW-1S) Matrix Spike (MS)
1205497921	634509001(BW-1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample 634509004 (MW-3) was diluted to ensure that the analyte concentration was within the linear calibration range of the instrument.

Analyte	**634509**
	004
Lithium	20X

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 40
Analytical Batch: 2482668

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 40
Preparation Batch: 2482660

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
1205499095	Method Blank (MB)**CVAA**
1205499096	Laboratory Control Sample (LCS)
1205499099	634513006(NonSDGL) Serial Dilution (SD)
1205499097	634513006(NonSDGD) Sample Duplicate (DUP)
1205499098	634513006(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 40
Analytical Batch: 2487099

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 40
Preparation Batch: 2487095

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509004	MW-3
1205507179	Method Blank (MB)**CVAA**
1205507180	Laboratory Control Sample (LCS)
1205507183	634701001(NonSDGL) Serial Dilution (SD)
1205507181	634701001(NonSDGD) Sample Duplicate (DUP)
1205507182	634701001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: **Ion Chromatography**
Analytical Method: SW846 9056A
Analytical Procedure: GL-GC-E-086 REV# 33
Analytical Batch: 2481898

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
1205497886	Method Blank (MB)
1205497887	Laboratory Control Sample (LCS)
1205497888	634513011(NonSDG) Sample Duplicate (DUP)
1205497889	634513011(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1205497888 (Non SDG 634513011DUP), 1205497889 (Non SDG 634513011PS), 634509001 (BW-1), 634509002 (MW-1), 634509003 (MW-2) and 634509004 (MW-3) were diluted because target analyte concentrations exceeded the calibration range. Samples 634509001 (BW-1), 634509002 (MW-1), 634509003 (MW-2) and 634509004 (MW-3) were diluted to minimize matrix effects on instrument performance. Samples 634509001 (BW-1), 634509002 (MW-1), 634509003 (MW-2) and 634509004 (MW-3) were diluted based on historical data. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	634509			
	001	002	003	004
Chloride	250X	50X	250X	50X
Fluoride	10X	10X	10X	10X
Sulfate	250X	250X	250X	250X

Miscellaneous Information

Manual Integrations
Sample 1205497888 (Non SDG 634513011DUP) was manually integrated to correctly position the baseline as set in the calibration standards.

Product: **Solids, Total Dissolved**
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 21
Analytical Batch: 2482652

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
1205499067	Method Blank (MB)
1205499068	Laboratory Control Sample (LCS)
1205499069	634225001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
A TDS meter was used to check the samples for interference prior to analysis. 634509001 (BW-1), 634509002 (MW-1), 634509003 (MW-2) and 634509004 (MW-3).

Product: **pH**
Analytical Method: SW846 9040C
Analytical Procedure: GL-GC-E-008 REV# 26
Analytical Batch: 2482132

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
1205498252	Laboratory Control Sample (LCS)
1205498253	634349001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Holding Times
Samples (See Below) were received by the laboratory outside of the method specified holding time. The data is qualified.

Sample	Analyte	Value
1205498253 (Non SDG 634349001DUP)		Received 23-AUG-23, out of holding 21-AUG-23
634509001 (BW-1)		Received 24-AUG-23, out of holding 22-AUG-23
634509002 (MW-1)		Received 24-AUG-23, out of holding 22-AUG-23
634509003 (MW-2)		Received 24-AUG-23, out of holding 22-AUG-23
634509004 (MW-3)		Received 24-AUG-23, out of holding 22-AUG-23

Radiochemistry

Product: **GFPC Ra228, Liquid**
Analytical Method: EPA 904.0/SW846 9320 Modified
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2481985

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
634509005	CW-1A
1205497982	Method Blank (MB)
1205497983	634501001(Coal Pond) Sample Duplicate (DUP)
1205497984	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix
Samples 1205497983 (Coal PondDUP) and 634509005 (CW-1A) were non-homogenous matrix. very dirty 1205497983 (Coal PondDUP) and 634509005 (CW-1A).

Product: **Lucas Cell, Ra226, Liquid**
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2481986

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
634509001	BW-1
634509002	MW-1
634509003	MW-2
634509004	MW-3
634509005	CW-1A
1205497985	Method Blank (MB)
1205497986	634509002(MW-1) Sample Duplicate (DUP)
1205497987	634509002(MW-1) Matrix Spike (MS)
1205497988	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
The matrix spike, 1205497987 (MW-1MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL Laboratories LLC

a member of The GEL Group INC

September 18, 2023

Asher Boudreaux
SCS Engineers
1901 Central Drive
Suite 550
Bedford, Texas 76021

Re: Radchem Analytical
Work Order: 637113

Dear Asher Boudreaux:

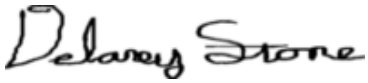
GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 24, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,



Delaney Stone
Project Manager

Purchase Order: GELP22-1466
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

SCSE004 SCS Engineers

Client SDG: 637113 GEL Work Order: 637113

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stone.

Reviewed by Delaney Stone

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 18, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	BW-1	Project:	SCSE00422
Sample ID:	637113001	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 16:00		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	5.00	15.0	ug/L	1.00	5	PRB	09/16/23	1415	2492457	1
Arsenic	U	ND	10.0	25.0	ug/L	1.00	5					
Beryllium	U	ND	1.00	2.50	ug/L	1.00	5					
Thallium	U	ND	3.00	10.0	ug/L	1.00	5					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/14/23	1500	2492456

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 18, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-1	Project:	SCSE00422
Sample ID:	637113002	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 16:15		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	5.00	15.0	ug/L	1.00	5	PRB	09/16/23	1433	2492457	1
Arsenic	U	ND	10.0	25.0	ug/L	1.00	5					
Beryllium	U	ND	1.00	2.50	ug/L	1.00	5					
Thallium	U	ND	3.00	10.0	ug/L	1.00	5					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/14/23	1500	2492456

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 18, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-2	Project:	SCSE00422
Sample ID:	637113003	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 13:40		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	5.00	15.0	ug/L	1.00	5	PRB	09/16/23	1437	2492457	1
Arsenic	U	ND	10.0	25.0	ug/L	1.00	5					
Beryllium	U	ND	1.00	2.50	ug/L	1.00	5					
Thallium	U	ND	3.00	10.0	ug/L	1.00	5					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/14/23	1500	2492456

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 18, 2023

Company :	SCS Engineers
Address :	1901 Central Drive Suite 550 Bedford, Texas 76021
Contact:	Asher Boudreaux
Project:	Radchem Analytical

Client Sample ID:	MW-3	Project:	SCSE00422
Sample ID:	637113004	Client ID:	SCSE004
Matrix:	Ground Water		
Collect Date:	22-AUG-23 14:10		
Receive Date:	24-AUG-23		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	5.00	15.0	ug/L	1.00	5	PRB	09/16/23	1440	2492457	1
Arsenic		46.8	10.0	25.0	ug/L	1.00	5					
Thallium	U	ND	3.00	10.0	ug/L	1.00	5					
Beryllium	U	ND	5.00	12.5	ug/L	1.00	25	PRB	09/17/23	0702	2492457	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	JM13	09/14/23	1500	2492456

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3005A/6020B	
2	SW846 3005A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

QC Summary

Report Date: September 18, 2023

SCS Engineers
1901 Central Drive
Suite 550
Bedford, Texas
Contact: **Asher Boudreaux**

Workorder: **637113**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2492457										
QC1205516756 LCS										
Antimony	50.0			46.9	ug/L		93.7	(80%-120%)	PRB	09/16/23 14:12
Arsenic	50.0			48.4	ug/L		96.9	(80%-120%)		
Beryllium	50.0			45.6	ug/L		91.2	(80%-120%)		
Thallium	50.0			50.4	ug/L		101	(80%-120%)		
QC1205516755 MB										
Antimony			U	ND	ug/L					09/16/23 14:08
Arsenic			U	ND	ug/L					
Beryllium			U	ND	ug/L					
Thallium			U	ND	ug/L					
QC1205516757 637113001 MS										
Antimony	50.0	U ND		50.5	ug/L		101	(75%-125%)		09/16/23 14:19
Arsenic	50.0	U ND		56.2	ug/L		102	(75%-125%)		
Beryllium	50.0	U ND		44.9	ug/L		89.4	(75%-125%)		
Thallium	50.0	U ND		46.6	ug/L		92.9	(75%-125%)		

QC Summary

Workorder: **637113**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2492457											
QC1205516758 637113001 MSD											
Antimony	50.0	U	ND		48.9	ug/L	3.22	97.3	(0%-20%)	PRB	09/16/23 14:22
Arsenic	50.0	U	ND		56.3	ug/L	0.125	102	(0%-20%)		
Beryllium	50.0	U	ND		44.1	ug/L	1.74	87.9	(0%-20%)		
Thallium	50.0	U	ND		45.5	ug/L	2.19	90.9	(0%-20%)		
QC1205516759 637113001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		09/16/23 14:30
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Beryllium		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Thallium		U	ND	U	ND	ug/L	N/A		(0%-20%)		

Notes:

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- N Metals--The Matrix spike sample recovery is not within specified control limits
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria

QC Summary

Workorder: **637113**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies

N1 See case narrative

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

J See case narrative for an explanation

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Project # 160223032.00
GEL Quote #: SCSE00422
COC Number [1]:
PO Number:

Chain of Custody and Analytical Request

631509

GEL Work Order Number:

GEL Project Manager:

2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 1 of 1 SDG: 637113

Client Name: Asher Boudreaux Phone # 817-368-0837

Project/Site Name: Sandy Creek Fax #

Address: 1901 Central Drive, Bedford, TX 76021

Collected By: Asher Boudreaux Send Results To: gcollier@scsengineers.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Ra-226	Ra-228	pH 9040C	9056 anions	SM 2540 C TDS	6020 (B, C, Total Met	7470 Mercury				<-- Preservative Type (6)
BW-1	08-22-23	16:00	N	N	GW			5	X	X	X	X	X	X	X				
MW-1	08-22-23	16:15	N	N	GW			5	X	X	X	X	X	X	X				
MW-2	08-22-23	13:40	N	N	GW			5	X	X	X	X	X	X	X				
MW-3	08-22-23	14:10	N	N	GW			5	X	X	X	X	X	X	X				
CW-1A	08-22-23	14:50	N	N	SW			2	X	X									

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1		8/23/23	12:57		8/24/23	900
2						
3						

TAT Requested: Normal: _____ Rush: __X___ Specify: __24 hour__ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No

Select Deliverable: [X] C of A [X] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** _____°C

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

Sample Collection Time Zone : [ ] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

D5

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCSE	**SDG/AR/COC/Work Order:** 634509
Received By: EG	**Date Received:** 8/24/23
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 6847 0900 4917

Suspected Hazard Information	**Yes**	**No**	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 06 **CPM / mR/Hr** **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			✓	Preservation Method: (Wet Ice) Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius minimal ice TEMP: 12
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR6-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials JM Date 8-25-23 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 18 September 2023

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals
Technical Case Narrative
SCS Engineers
SDG #: 637113

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3005A/6020B
Analytical Procedure: GL-MA-E-014 REV# 36
Analytical Batch: 2492457

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 2492456

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
637113001	BW-1
637113002	MW-1
637113003	MW-2
637113004	MW-3
1205516755	Method Blank (MB)**ICP-MS**
1205516756	Laboratory Control Sample (LCS)
1205516759	637113001(BW-1L) Serial Dilution (SD)
1205516757	637113001(BW-1S) Matrix Spike (MS)
1205516758	637113001(BW-1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Per the SOP, samples were diluted due to internal standard recoveries outside the acceptable control limits.

Analyte	637113			
	001	**002**	**003**	**004**
Antimony	5X	5X	5X	5X

Arsenic	5X	5X	5X	5X
Beryllium	5X	5X	5X	25X
Thallium	5X	5X	5X	5X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Asher Boudreaux
SCS Engineers
1901 Central Avenue
Suite 550
Bedford, Texas 76021

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JOB DESCRIPTION

Sandy Creek Groundwater

JOB NUMBER

860-64152-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

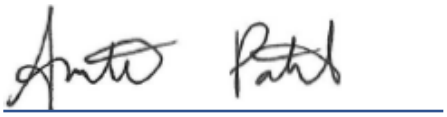
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Anita Patel, Project Manager
Anita.Patel@et.eurofinsus.com
(832)776-2275

Table of Contents

Definitions/Glossary

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
860-64152-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 12/21/2023 4:59 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.9°C and 3.6°C

HPLC/IC
Method 9056A_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-136466 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) recovery was within acceptance limits.

Method 9056A_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: BW-1 (860-64152-1), MW-1 (860-64152-2), MW-2 (860-64152-3), MW-3 (860-64152-4), MW-4 (860-64152-5), MW-5 (860-64152-6) and DUP (860-64152-7). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The instrument blank/CCB for analytical batch 860-136466 contained Chloride greater than the method detection limit (MDL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the instrument blank/CCB. The data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-138506 and 860-138612 and analytical batch 860-139077 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) recoveries are within acceptance limits.

Method 6020B: The following samples were diluted to bring the concentration of target analytes within the calibration range: BW-1 (860-64152-1), MW-1 (860-64152-2), MW-4 (860-64152-5) and MW-5 (860-64152-6). Elevated reporting limits (RLs) are provided.

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-139489 and analytical batch 860-139906 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-2 (860-64152-3), MW-3 (860-64152-4) and DUP (860-64152-7). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: SCS Engineers
Project/Site: Sandy Creek Groundwater

Job ID: 860-64152-1

Client Sample ID: BW-1 — Lab Sample ID: 860-64152-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	1100		2.5	2.5	mg/L	10		9056A	Total/NA
Sulfate - DL	2700		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	3.3		0.40	0.40	mg/L	100		6020B	Total/NA
Calcium	710		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.1	HF			SU	1		9040C	Total/NA
Temperature	17.0	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.1	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	6800		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 860-64152-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	150		0.50	0.25	mg/L	1		9056A	Total/NA
Sulfate - DL	2300		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	1.2		0.40	0.40	mg/L	100		6020B	Total/NA
Calcium	660		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.2	HF			SU	1		9040C	Total/NA
Temperature	17.0	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.2	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	4100		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 860-64152-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	1400		2.5	2.5	mg/L	10		9056A	Total/NA
Sulfate - DL	2400		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	1.6		0.20	0.20	mg/L	50		6020B	Total/NA
Calcium	690		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.1	HF			SU	1		9040C	Total/NA
Temperature	16.9	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.1	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	8000		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 860-64152-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	320		0.50	0.25	mg/L	1		9056A	Total/NA
Sulfate - DL	2800		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	1.1		0.20	0.20	mg/L	50		6020B	Total/NA
Calcium	580		3.0	3.0	mg/L	100		6020B	Total/NA
pH	6.8	HF			SU	1		9040C	Total/NA
Temperature	17.5	HF			Degrees C	1		9040C	Total/NA
Corrosivity	6.8	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	6200		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 860-64152-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	760		2.5	2.5	mg/L	10		9056A	Total/NA
Sulfate - DL	2600		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	4.7		0.40	0.40	mg/L	100		6020B	Total/NA
Calcium	550		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.4	HF			SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Client Sample ID: MW-4 (Continued) — Lab Sample ID: 860-64152-5

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Temperature	16.9	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.4	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	6900		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 860-64152-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	1200		2.5	2.5	mg/L	10		9056A	Total/NA
Sulfate - DL	3100		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	3.3		0.40	0.40	mg/L	100		6020B	Total/NA
Calcium	650		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.5	HF			SU	1		9040C	Total/NA
Temperature	17.5	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.5	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	7000		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP — Lab Sample ID: 860-64152-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	320		0.50	0.25	mg/L	1		9056A	Total/NA
Sulfate - DL	2700		2.0	2.0	mg/L	10		9056A	Total/NA
Boron	1.1		0.20	0.20	mg/L	50		6020B	Total/NA
Calcium	550		3.0	3.0	mg/L	100		6020B	Total/NA
pH	7.0	HF			SU	1		9040C	Total/NA
Temperature	17.3	HF			Degrees C	1		9040C	Total/NA
Corrosivity	7.0	HF			SU	1		9040C	Total/NA
Total Dissolved Solids	5700		40	40	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: BW-1
Lab Sample ID: 860-64152-1

Date Collected: 12/20/23 13:20
Matrix: Water
Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.50	0.10	mg/L			12/23/23 21:00	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		2.5	2.5	mg/L			12/23/23 21:12	10
Sulfate	2700		2.0	2.0	mg/L			12/23/23 21:12	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.3		0.40	0.40	mg/L		12/29/23 10:00	01/03/24 17:08	100
Calcium	710		3.0	3.0	mg/L		12/29/23 10:00	01/03/24 17:08	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.1	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	17.0	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.1	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6800		40	40	mg/L			12/22/23 09:49	1

Client Sample ID: MW-1
Lab Sample ID: 860-64152-2

Date Collected: 12/20/23 13:35
Matrix: Water
Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		0.50	0.25	mg/L			12/23/23 21:25	1
Fluoride	ND		0.50	0.10	mg/L			12/23/23 21:25	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2300		2.0	2.0	mg/L			12/23/23 21:38	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.2		0.40	0.40	mg/L		12/29/23 10:00	01/03/24 17:10	100
Calcium	660		3.0	3.0	mg/L		12/29/23 10:00	01/03/24 17:10	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.2	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	17.0	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.2	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4100		40	40	mg/L			12/22/23 09:49	1

Client Sample ID: MW-2

Lab Sample ID: 860-64152-3

Date Collected: 12/20/23 13:50

Matrix: Water

Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.50	0.10	mg/L			12/23/23 21:50	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1400		2.5	2.5	mg/L			12/23/23 22:03	10
Sulfate	2400		2.0	2.0	mg/L			12/23/23 22:03	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.6		0.20	0.20	mg/L		01/06/24 11:54	01/08/24 21:36	50
Calcium	690		3.0	3.0	mg/L		01/06/24 11:54	01/08/24 21:59	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.1	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	16.9	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.1	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	8000		40	40	mg/L			12/22/23 09:49	1

Client Sample ID: MW-3

Lab Sample ID: 860-64152-4

Date Collected: 12/20/23 14:25

Matrix: Water

Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		0.50	0.25	mg/L			12/23/23 22:15	1
Fluoride	ND		0.50	0.10	mg/L			12/23/23 22:15	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2800		2.0	2.0	mg/L			12/23/23 22:28	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.20	0.20	mg/L		01/06/24 11:54	01/08/24 21:34	50
Calcium	580		3.0	3.0	mg/L		01/06/24 11:54	01/08/24 21:57	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	6.8	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	17.5	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	6.8	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6200		40	40	mg/L			12/22/23 09:49	1

Client: SCS Engineers
Project/Site: Sandy Creek Groundwater

Job ID: 860-64152-1

Client Sample ID: MW-4

Lab Sample ID: 860-64152-5

Date Collected: 12/20/23 14:00

Matrix: Water

Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.50	0.10	mg/L			12/23/23 22:41	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	760		2.5	2.5	mg/L			12/23/23 22:53	10
Sulfate	2600		2.0	2.0	mg/L			12/23/23 22:53	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.7		0.40	0.40	mg/L		12/29/23 10:00	01/03/24 17:12	100
Calcium	550		3.0	3.0	mg/L		12/29/23 10:00	01/03/24 17:12	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.4	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	16.9	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.4	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6900		40	40	mg/L			12/22/23 09:49	1

Client Sample ID: MW-5

Lab Sample ID: 860-64152-6

Date Collected: 12/20/23 14:40

Matrix: Water

Date Received: 12/21/23 16:59

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.50	0.10	mg/L			12/23/23 03:08	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200		2.5	2.5	mg/L			12/23/23 03:20	10
Sulfate	3100		2.0	2.0	mg/L			12/23/23 03:20	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.3		0.40	0.40	mg/L		12/29/23 10:00	01/03/24 17:14	100
Calcium	650		3.0	3.0	mg/L		12/29/23 10:00	01/03/24 17:14	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.5	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	17.5	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.5	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7000		40	40	mg/L			12/22/23 09:49	1

Client: SCS Engineers
Project/Site: Sandy Creek Groundwater

Job ID: 860-64152-1

Client Sample ID: DUP
Date Collected: 12/20/23 14:25
Date Received: 12/21/23 16:59

Lab Sample ID: 860-64152-7
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		0.50	0.25	mg/L			12/23/23 03:33	1
Fluoride	ND		0.50	0.10	mg/L			12/23/23 03:33	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2700		2.0	2.0	mg/L			12/23/23 03:45	10

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.20	0.20	mg/L		01/06/24 11:54	01/08/24 21:42	50
Calcium	550		3.0	3.0	mg/L		01/06/24 11:54	01/08/24 22:01	100

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.0	HF			SU			01/03/24 13:10	1
Temperature (SW846 9040C)	17.3	HF			Degrees C			01/03/24 13:10	1
Corrosivity (SW846 9040C)	7.0	HF			SU			01/03/24 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5700		40	40	mg/L			12/22/23 11:00	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 860-136466/3
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			12/22/23 17:14	1
Fluoride	ND		0.50	0.10	mg/L			12/22/23 17:14	1
Sulfate	ND		0.50	0.20	mg/L			12/22/23 17:14	1

Lab Sample ID: MB 860-136466/47
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			12/23/23 02:30	1
Fluoride	ND		0.50	0.10	mg/L			12/23/23 02:30	1
Sulfate	ND		0.50	0.20	mg/L			12/23/23 02:30	1

Lab Sample ID: MB 860-136466/92
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			12/23/23 11:57	1
Fluoride	ND		0.50	0.10	mg/L			12/23/23 11:57	1
Sulfate	ND		0.50	0.20	mg/L			12/23/23 11:57	1

Lab Sample ID: LCS 860-136466/4
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.71		mg/L		94	90 - 110
Chloride	5.00	4.84		mg/L		97	90 - 110
Fluoride	5.00	5.10		mg/L		102	90 - 110
Sulfate	5.00	4.72		mg/L		94	90 - 110
Sulfur	1.67	1.57		mg/L		94	90 - 110

Lab Sample ID: LCS 860-136466/48
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.69		mg/L		94	90 - 110
Chloride	5.00	4.83		mg/L		97	90 - 110
Fluoride	5.00	5.11		mg/L		102	90 - 110
Sulfate	5.00	4.70		mg/L		94	90 - 110
Sulfur	1.67	1.57		mg/L		94	90 - 110

Lab Sample ID: LCS 860-136466/93
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.68		mg/L		94	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-136466/93
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.00	4.83		mg/L		97	90 - 110
Fluoride	5.00	5.04		mg/L		101	90 - 110
Sulfate	5.00	4.68		mg/L		94	90 - 110
Sulfur	1.67	1.56		mg/L		94	90 - 110

Lab Sample ID: LCSD 860-136466/49
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.60		mg/L		92	90 - 110	2	20
Chloride	5.00	4.75		mg/L		95	90 - 110	1	20
Fluoride	5.00	5.00		mg/L		100	90 - 110	2	20
Sulfate	5.00	4.62		mg/L		92	90 - 110	2	20
Sulfur	1.67	1.54		mg/L		92	90 - 110	2	30

Lab Sample ID: LCSD 860-136466/5
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.62		mg/L		92	90 - 110	2	20
Chloride	5.00	4.77		mg/L		95	90 - 110	2	20
Fluoride	5.00	4.99		mg/L		100	90 - 110	2	20
Sulfate	5.00	4.65		mg/L		93	90 - 110	2	20
Sulfur	1.67	1.55		mg/L		93	90 - 110	2	30

Lab Sample ID: LCSD 860-136466/94
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.58		mg/L		92	90 - 110	2	20
Chloride	5.00	4.75		mg/L		95	90 - 110	2	20
Fluoride	5.00	4.95		mg/L		99	90 - 110	2	20
Sulfate	5.00	4.61		mg/L		92	90 - 110	2	20
Sulfur	1.67	1.54		mg/L		92	90 - 110	2	30

Lab Sample ID: LLCS 860-136466/7
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.523		mg/L		105	50 - 150
Chloride	0.500	0.521		mg/L		104	50 - 150
Fluoride	0.500	0.475	J	mg/L		95	50 - 150
Sulfate	0.500	0.401	J	mg/L		80	50 - 150
Sulfur	0.167	ND		mg/L		80	50 - 150

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 870-23259-A-1 MS
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		5.00	5.23		mg/L		98	90 - 110
Chloride	54		5.00	58.7	4	mg/L		98	90 - 110
Fluoride	ND	F1	5.00	5.93	F1	mg/L		112	90 - 110
Sulfate	83		5.00	87.4	4	mg/L		93	90 - 110
Sulfur	28		1.67	29.1	4	mg/L		93	90 - 110

Lab Sample ID: 870-23259-A-1 MSD
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	ND		5.00	5.24		mg/L		99	90 - 110	0	15
Chloride	54		5.00	58.8	4	mg/L		99	90 - 110	0	15
Fluoride	ND	F1	5.00	5.95	F1	mg/L		112	90 - 110	0	15
Sulfate	83		5.00	87.4	4	mg/L		93	90 - 110	0	15
Sulfur	28		1.67	29.1	4	mg/L		93	90 - 110	0	30

Lab Sample ID: 880-37095-A-1 MS
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.53		5.00	5.65		mg/L		102	90 - 110
Chloride	60		5.00	65.3	4	mg/L		101	90 - 110
Fluoride	2.1		5.00	7.44		mg/L		107	90 - 110
Sulfate	410		5.00	409	4	mg/L		77	90 - 110
Sulfur	140		1.67	136	4	mg/L		77	90 - 110

Lab Sample ID: 880-37095-A-1 MSD
Matrix: Water
Analysis Batch: 136466

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	0.53		5.00	5.69		mg/L		103	90 - 110	1	15
Chloride	60		5.00	65.3	4	mg/L		101	90 - 110	0	15
Fluoride	2.1		5.00	7.41		mg/L		106	90 - 110	0	15
Sulfate	410		5.00	409	4	mg/L		74	90 - 110	0	15
Sulfur	140		1.67	136	4	mg/L		74	90 - 110	0	30

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LB 860-138506/1-C
Matrix: Water
Analysis Batch: 138930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138612

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.15	0.15	mg/L		12/29/23 10:00	12/30/23 02:56	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-138612/1-A
Matrix: Water
Analysis Batch: 138930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10	0.030	mg/L		12/29/23 10:00	12/30/23 02:50	1

Lab Sample ID: MB 860-138612/1-A
Matrix: Water
Analysis Batch: 139077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.010	0.0040	mg/L		12/29/23 10:00	01/03/24 16:55	1
Calcium	ND		0.10	0.030	mg/L		12/29/23 10:00	01/03/24 16:55	1

Lab Sample ID: LCS 860-138612/2-A
Matrix: Water
Analysis Batch: 138930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.50	2.37		mg/L		95	80 - 120

Lab Sample ID: LCS 860-138612/2-A
Matrix: Water
Analysis Batch: 139077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0926		mg/L		93	80 - 120
Calcium	2.50	2.59		mg/L		104	80 - 120

Lab Sample ID: LCSD 860-138612/3-A
Matrix: Water
Analysis Batch: 138930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138612

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	2.50	2.36		mg/L		94	80 - 120	0	20

Lab Sample ID: LCSD 860-138612/3-A
Matrix: Water
Analysis Batch: 139077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138612

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.100	0.0961		mg/L		96	80 - 120	4	20
Calcium	2.50	2.52		mg/L		101	80 - 120	3	20

Lab Sample ID: 830-4643-A-1-E MS ^2
Matrix: Water
Analysis Batch: 139077

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138612

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.087	F1	0.100	0.159	F1	mg/L		72	75 - 125
Calcium	19		2.50	19.8	4	mg/L		38	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 830-4643-A-1-F MSD ^2 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139077 — **Prep Batch: 138612**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.087	F1	0.100	0.146	F1	mg/L		60	75 - 125	8	20
Calcium	19		2.50	19.9	4	mg/L		41	75 - 125	0	20

Lab Sample ID: MB 860-139489/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139906 — **Prep Batch: 139489**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	^1+	0.010	0.0040	mg/L		01/06/24 11:53	01/08/24 21:10	1
Calcium	ND		0.10	0.030	mg/L		01/06/24 11:53	01/08/24 21:10	1

Lab Sample ID: LCS 860-139489/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139906 — **Prep Batch: 139489**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.100	0.0994		mg/L		99	80 - 120
Calcium	2.50	2.62		mg/L		105	80 - 120

Lab Sample ID: LCSD 860-139489/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139906 — **Prep Batch: 139489**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.100	0.102		mg/L		102	80 - 120	3	20
Calcium	2.50	2.51		mg/L		100	80 - 120	4	20

Lab Sample ID: 860-64524-G-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139906 — **Prep Batch: 139489**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.022		0.100	0.105		mg/L		83	75 - 125
Calcium	3.0	F1	2.50	4.78	F1	mg/L		73	75 - 125

Lab Sample ID: 860-64524-G-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139906 — **Prep Batch: 139489**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.022		0.100	0.117		mg/L		95	75 - 125	11	20
Calcium	3.0	F1	2.50	5.31		mg/L		94	75 - 125	10	20

Lab Sample ID: 830-4643-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 138930 — **Prep Batch: 138612**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	15		2.50	15.5	4	mg/L		31	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 830-4643-A-1-F MSD
Matrix: Water
Analysis Batch: 138930

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 138612

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	15		2.50	15.4	4	mg/L		28	75 - 125	1	20

Method: 9040C - pH

Lab Sample ID: 860-64165-A-1 DU
Matrix: Water
Analysis Batch: 139036

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.6		7.6		SU		0.1	20
Temperature	17.8		17.9		Degrees C		0.6	20
Corrosivity	7.6		7.6		SU		0.1	

Lab Sample ID: 880-37297-D-1 DU
Matrix: Water
Analysis Batch: 139036

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9		7.9		SU		0.3	20
Temperature	17.3		17.3		Degrees C		0	20
Corrosivity	7.9		7.9		SU		0.3	

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-136381/1
Matrix: Water
Analysis Batch: 136381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			12/22/23 09:49	1

Lab Sample ID: LCS 860-136381/2
Matrix: Water
Analysis Batch: 136381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1110		mg/L		111	80 - 120

Lab Sample ID: LCSD 860-136381/3
Matrix: Water
Analysis Batch: 136381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	1000	1100		mg/L		110	80 - 120	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 880-37144-K-2 DU
Matrix: Water
Analysis Batch: 136381

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	110000			111000		mg/L				2	10

Lab Sample ID: MB 860-136418/1
Matrix: Water
Analysis Batch: 136418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	5.0	mg/L			12/22/23 11:00	1

Lab Sample ID: LCS 860-136418/2
Matrix: Water
Analysis Batch: 136418

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1110		mg/L		111	80 - 120		

Lab Sample ID: LCSD 860-136418/3
Matrix: Water
Analysis Batch: 136418

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1110		mg/L		111	80 - 120	0	10

Lab Sample ID: 860-64152-7 DU
Matrix: Water
Analysis Batch: 136418

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5700			5920		mg/L				5	10

HPLC/IC

Analysis Batch: 136466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-1	BW-1	Total/NA	Water	9056A	
860-64152-1 - DL	BW-1	Total/NA	Water	9056A	
860-64152-2	MW-1	Total/NA	Water	9056A	
860-64152-2 - DL	MW-1	Total/NA	Water	9056A	
860-64152-3	MW-2	Total/NA	Water	9056A	
860-64152-3 - DL	MW-2	Total/NA	Water	9056A	
860-64152-4	MW-3	Total/NA	Water	9056A	
860-64152-4 - DL	MW-3	Total/NA	Water	9056A	
860-64152-5	MW-4	Total/NA	Water	9056A	
860-64152-5 - DL	MW-4	Total/NA	Water	9056A	
860-64152-6	MW-5	Total/NA	Water	9056A	
860-64152-6 - DL	MW-5	Total/NA	Water	9056A	
860-64152-7	DUP	Total/NA	Water	9056A	
860-64152-7 - DL	DUP	Total/NA	Water	9056A	
MB 860-136466/3	Method Blank	Total/NA	Water	9056A	
MB 860-136466/47	Method Blank	Total/NA	Water	9056A	
MB 860-136466/92	Method Blank	Total/NA	Water	9056A	
LCS 860-136466/4	Lab Control Sample	Total/NA	Water	9056A	
LCS 860-136466/48	Lab Control Sample	Total/NA	Water	9056A	
LCS 860-136466/93	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-136466/49	Lab Control Sample Dup	Total/NA	Water	9056A	
LCSD 860-136466/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LCSD 860-136466/94	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 860-136466/7	Lab Control Sample	Total/NA	Water	9056A	
870-23259-A-1 MS	Matrix Spike	Total/NA	Water	9056A	
870-23259-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
880-37095-A-1 MS	Matrix Spike	Total/NA	Water	9056A	
880-37095-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	

Metals

Leach Batch: 138506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-138506/1-C	Method Blank	Total/NA	Water	1311	
830-4643-A-1-E MS	Matrix Spike	TCLP	Water	1311	
830-4643-A-1-E MS ^2	Matrix Spike	Total/NA	Water	1311	
830-4643-A-1-F MSD	Matrix Spike Duplicate	TCLP	Water	1311	
830-4643-A-1-F MSD ^2	Matrix Spike Duplicate	Total/NA	Water	1311	

Prep Batch: 138612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-1	BW-1	Total/NA	Water	3010A	
860-64152-2	MW-1	Total/NA	Water	3010A	
860-64152-5	MW-4	Total/NA	Water	3010A	
860-64152-6	MW-5	Total/NA	Water	3010A	
LB 860-138506/1-C	Method Blank	Total/NA	Water	3010A	138506
MB 860-138612/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-138612/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-138612/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
830-4643-A-1-E MS	Matrix Spike	TCLP	Water	3010A	138506
830-4643-A-1-E MS ^2	Matrix Spike	Total/NA	Water	3010A	138506

Metals (Continued)

Prep Batch: 138612 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-4643-A-1-F MSD	Matrix Spike Duplicate	TCLP	Water	3010A	138506
830-4643-A-1-F MSD ^2	Matrix Spike Duplicate	Total/NA	Water	3010A	138506

Analysis Batch: 138930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-138506/1-C	Method Blank	Total/NA	Water	6020B	138612
MB 860-138612/1-A	Method Blank	Total/NA	Water	6020B	138612
LCS 860-138612/2-A	Lab Control Sample	Total/NA	Water	6020B	138612
LCSD 860-138612/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	138612
830-4643-A-1-E MS	Matrix Spike	TCLP	Water	6020B	138612
830-4643-A-1-F MSD	Matrix Spike Duplicate	TCLP	Water	6020B	138612

Analysis Batch: 139077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-1	BW-1	Total/NA	Water	6020B	138612
860-64152-2	MW-1	Total/NA	Water	6020B	138612
860-64152-5	MW-4	Total/NA	Water	6020B	138612
860-64152-6	MW-5	Total/NA	Water	6020B	138612
MB 860-138612/1-A	Method Blank	Total/NA	Water	6020B	138612
LCS 860-138612/2-A	Lab Control Sample	Total/NA	Water	6020B	138612
LCSD 860-138612/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	138612
830-4643-A-1-E MS ^2	Matrix Spike	Total/NA	Water	6020B	138612
830-4643-A-1-F MSD ^2	Matrix Spike Duplicate	Total/NA	Water	6020B	138612

Prep Batch: 139489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-3	MW-2	Total/NA	Water	3010A	
860-64152-4	MW-3	Total/NA	Water	3010A	
860-64152-7	DUP	Total/NA	Water	3010A	
MB 860-139489/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-139489/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-139489/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
860-64524-G-1-B MS	Matrix Spike	Total/NA	Water	3010A	
860-64524-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 139906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-3	MW-2	Total/NA	Water	6020B	139489
860-64152-3	MW-2	Total/NA	Water	6020B	139489
860-64152-4	MW-3	Total/NA	Water	6020B	139489
860-64152-4	MW-3	Total/NA	Water	6020B	139489
860-64152-7	DUP	Total/NA	Water	6020B	139489
860-64152-7	DUP	Total/NA	Water	6020B	139489
MB 860-139489/1-A	Method Blank	Total/NA	Water	6020B	139489
LCS 860-139489/2-A	Lab Control Sample	Total/NA	Water	6020B	139489
LCSD 860-139489/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	139489
860-64524-G-1-B MS	Matrix Spike	Total/NA	Water	6020B	139489
860-64524-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6020B	139489

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

General Chemistry

Analysis Batch: 136381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-1	BW-1	Total/NA	Water	SM 2540C	
860-64152-2	MW-1	Total/NA	Water	SM 2540C	
860-64152-3	MW-2	Total/NA	Water	SM 2540C	
860-64152-4	MW-3	Total/NA	Water	SM 2540C	
860-64152-5	MW-4	Total/NA	Water	SM 2540C	
860-64152-6	MW-5	Total/NA	Water	SM 2540C	
MB 860-136381/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-136381/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-136381/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-37144-K-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 136418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-7	DUP	Total/NA	Water	SM 2540C	
MB 860-136418/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-136418/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-136418/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
860-64152-7 DU	DUP	Total/NA	Water	SM 2540C	

Analysis Batch: 139036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64152-1	BW-1	Total/NA	Water	9040C	
860-64152-2	MW-1	Total/NA	Water	9040C	
860-64152-3	MW-2	Total/NA	Water	9040C	
860-64152-4	MW-3	Total/NA	Water	9040C	
860-64152-5	MW-4	Total/NA	Water	9040C	
860-64152-6	MW-5	Total/NA	Water	9040C	
860-64152-7	DUP	Total/NA	Water	9040C	
860-64165-A-1 DU	Duplicate	Total/NA	Water	9040C	
880-37297-D-1 DU	Duplicate	Total/NA	Water	9040C	

Lab Chronicle

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Client Sample ID: BW-1
Lab Sample ID: 860-64152-1
Date Collected: 12/20/23 13:20
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 21:00	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 21:12	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	138612	12/29/23 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			139077	01/03/24 17:08	SHZ	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: MW-1
Lab Sample ID: 860-64152-2
Date Collected: 12/20/23 13:35
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 21:25	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 21:38	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	138612	12/29/23 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			139077	01/03/24 17:10	SHZ	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: MW-2
Lab Sample ID: 860-64152-3
Date Collected: 12/20/23 13:50
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 21:50	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 22:03	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		50			139906	01/08/24 21:36	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		100			139906	01/08/24 21:59	DP	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: MW-3
Lab Sample ID: 860-64152-4
Date Collected: 12/20/23 14:25
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 22:15	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 22:28	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		50			139906	01/08/24 21:34	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		100			139906	01/08/24 21:57	DP	EET HOU

Lab Chronicle

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Client Sample ID: MW-3
Lab Sample ID: 860-64152-4
Date Collected: 12/20/23 14:25
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: MW-4
Lab Sample ID: 860-64152-5
Date Collected: 12/20/23 14:00
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 22:41	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 22:53	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	138612	12/29/23 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			139077	01/03/24 17:12	SHZ	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: MW-5
Lab Sample ID: 860-64152-6
Date Collected: 12/20/23 14:40
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 03:08	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 03:20	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	138612	12/29/23 10:00	MD	EET HOU
Total/NA	Analysis	6020B		100			139077	01/03/24 17:14	SHZ	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136381	12/22/23 09:49	SA	EET HOU

Client Sample ID: DUP
Lab Sample ID: 860-64152-7
Date Collected: 12/20/23 14:25
Matrix: Water
Date Received: 12/21/23 16:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			136466	12/23/23 03:33	WP	EET HOU
Total/NA	Analysis	9056A	DL	10			136466	12/23/23 03:45	WP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		50			139906	01/08/24 21:42	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	139489	01/06/24 11:54	AGR	EET HOU
Total/NA	Analysis	6020B		100			139906	01/08/24 22:01	DP	EET HOU
Total/NA	Analysis	9040C		1			139036	01/03/24 13:10	SCI	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	136418	12/22/23 11:00	SA	EET HOU

Laboratory References:
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Method Summary

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
9040C	pH	SW846	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: SCS Engineers
Job ID: 860-64152-1
Project/Site: Sandy Creek Groundwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-64152-1	BW-1	Water	12/20/23 13:20	12/21/23 16:59
860-64152-2	MW-1	Water	12/20/23 13:35	12/21/23 16:59
860-64152-3	MW-2	Water	12/20/23 13:50	12/21/23 16:59
860-64152-4	MW-3	Water	12/20/23 14:25	12/21/23 16:59
860-64152-5	MW-4	Water	12/20/23 14:00	12/21/23 16:59
860-64152-6	MW-5	Water	12/20/23 14:40	12/21/23 16:59
860-64152-7	DUP	Water	12/20/23 14:25	12/21/23 16:59

Eurofins Dallas
9701 Harry Hines Blvd
Dallas, TX 75220
Phone (214) 902-0300

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Kenna Nava	Lab PM: Patel, Anita	Carrier Tracking No(s):	COC No: 870-6718-1735.1
Client Contact: Asher Boudreaux	Phone:	E-Mail: Anita.Patel@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 1901 Central Avenue Suite 550	Due Date Requested:			
City: Bedford	TAT Requested (days):			
State, Zip: TX, 76021	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: aboudreaux@scsengineers.com	WO #: 16223032.00			
Project Name: Sandy Creek Groundwater	Project #: 87001717			
Site:	SSOW#:			

Preservation Codes.

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Y	Trizma
		Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	[redacted]	pH 9040C, Anions-9056A_ORGFM_28D	6010D Total Metals B and Ca	2540C_Calcd Solids, Total Dissolved (TDS)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	D	N	X	
BW-1	12/20/23	13:20	G	Water							
MW-1	12/20/23	13:35	G	Water							
MW-2	12/20/23	13:50	G	Water							
MW-3	12/20/23	14:25	G	Water							
MW-4	12/20/23	14:00	G	Water							
MW-5	12/20/23	14:40	G	Water							
DUP	12/20/23	14:25	G	Water							

Temp 1.9 IR ID HOU-369
C/F:-0.0
Corrected Temp: 1.9

Temp. 3.6 IR ID HOU-369
C/F:-0.0
Corrected Temp: 3.6

860-64152 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/20/23 17:00	SCS Engineers	FedEx		
2	FedEx			FedEx Nuevo	12/21/23 11:29	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

1/9/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 860-64152-1

Login Number: 64152

List Source: Eurofins Houston

List Number: 1

Creator: Jimenez, Nicanor

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Appendix C
Historical Groundwater Analytical Data

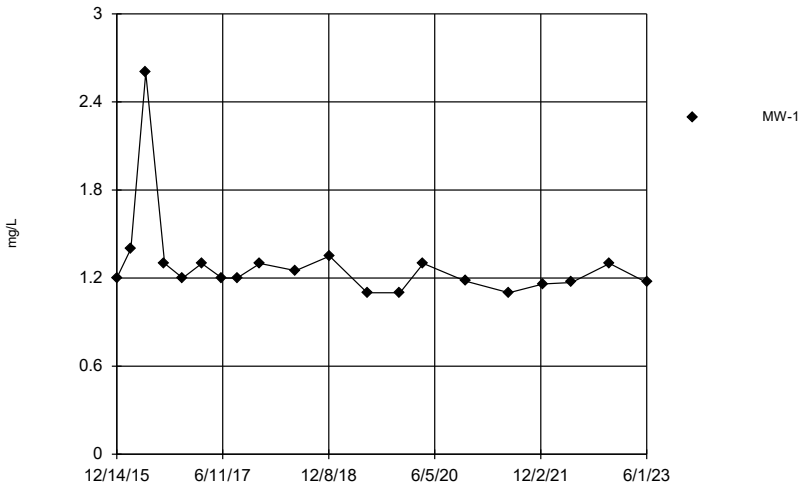
APPENDIX C - GROUNDWATER ANALYTICAL DATA
2023 SEMIANNUAL GROUNDWATER MONITORING REPORT
SANDY CREEK ENERGY STATION
2161 RATTLESNAKE ROAD
RIESEL, TX 76682

	Water Level	Conductiviy	Boron	Calcium	Chloride	pH at 25°C	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium-226	Radium-228	Combined Radium	Fluoride
Units	ft msl	mS/cm	mg/L	mg/L	mg/L	Std. Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	pCi/L	pCi/L	mg/L
MW-1																									
12/14/2015	453.53	4.51	1.2	454	253	7.6	2090	4090	<0.0010	<0.0050	0.044	<0.0010	<0.0010	0.0073	<0.0025	<0.0050	0.43	<0.00020	<0.010	0.16	<0.00050	1.04 ± 0.838	1.09 ± 0.523	2.13	<0.30
2/25/2016	453.38	4.98	1.4	520	236	7.5	2190	4060	<0.0010	<0.0050	0.033	<0.0010	<0.0010	0.0074	<0.0025	0.0084	0.39	<0.00020	<0.010	0.2	<0.00050	0.922 ± 0.720	1.46 ± 0.496	2.382	<0.30
5/11/2016	454.14	4.83	2.6	1030	402	7.2	2580	5260	<0.0010	0.12	1	0.029	<0.0020	0.69	0.087	0.21	0.78	<0.00020	<0.020	0.039	0.00089	3.94 ± 1.31	8.39 ± 1.74	12.33	<0.30
8/16/2016	453.67	4.47	1.3	535	239	6.8	2300	3880	<0.0010	<0.0050	0.022	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.41	<0.00020	<0.010	0.13	<0.00050	0.593 ± 0.620	3.29 ± 0.828	3.883	0.35
11/17/2016	454.43	4.45	1.2	542	216	7	2130	3720	<0.0010	<0.0050	0.018	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.37	<0.00020	<0.020	0.16	<0.00050	0.338 ± 0.339	2.49 ± 0.783	2.828	<0.30
2/23/2017	454.72	5.08	1.3	531	223	7	2350	3980	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	0.44	<0.00020	<0.010	0.066	<0.00050	-0.207 ± 0.945	3.13 ± 0.908	2.923	<0.30
6/7/2017	454.42	4.77	1.2	530	203	7.5	2010	3680	<0.0010	<0.0050	0.019	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.36	<0.00020	<0.020	0.15	<0.00050	0.000 ± 0.449	1.30 ± 0.518	1.3	<0.30
8/24/2017	454.69	4.58	1.2	518	241	7.1	2620	4550	<0.0010	<0.0050	0.02	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.395	<0.00020	<0.020	0.17	<0.00050	0.577 ± 0.429	1.69 ± 0.634	2.267	0.4
12/20/2017	454.22	4.287	1.3	548	248	7.4	2340	4250	<0.0010	<0.0060	0.017	<0.0010	<0.0050	<0.0070	<0.0025	<0.010	0.38	<0.00020	<0.030	0.18	<0.00050	1.26 ± 0.680	2.46 ± 0.888	3.72	1.1
6/21/2018	453.85	4.67	1.25	587	247	7.38	2530	4270	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.3 J
12/13/2018	454.86	4.369	1.35	515	241	7.52	2570	4100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.585
6/24/2019	455.38	4.142	1.1	492	169	7.2	2430	4030	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.73
12/10/2019	453.99	4.278	1.1	534	192	7.43	2420	3720	n/a	0.000667	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0809	n/a	n/a	n/a	n/a	0.236
4/8/2020	454.99	4.66	1.3	524	152	7.1	2430	4330	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
11/10/2020	454.45	4.73	1.18	539	168	7.2	2350	4060	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.26 J
6/22/2021	455.29	4.32	1.1	510	161	7.19	2470	3830	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
12/15/2021	455.13	4.45	1.16	534	144	7.15	2360	3940	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.271
5/10/2022	455.09	5.32	1.17	521	161	7.24	2460	4090	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11/22/2022	454.06	4.56	1.3	512	145	7.13	2500	3960	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.336
6/1/2023	455.37	4.45	1.17	491	153	7.44	2730	4750	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2
8/22/2023	n/a	n/a	1.12	506	132	7.37	2340	4310	0.0074	<0.0050	0.0105	<0.0010	<0.0050	<0.0050	<0.0050	0.0047	0.382	<0.00050	<0.020	0.0801	<0.00050	n/a	n/a	3.33	0.581
12/20/2023	454.33	4.69	1.2	660	150	7.2	2300	4100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
MW-2																									
12/14/2015	424.11	10.6	1.9	569	1890	6.7	2810	8520	<0.0010	<0.0050	0.031	<0.0010	<0.0010	<0.0050	0.0061	<0.0050	0.69	<0.00020	<0.010	<0.010	<0.00050	1.41 ± 0.938	2.76 ± 0.771	4.17	0.98
2/25/2016	429.50	11.3	2.4	697	2080	7.3	2890	8070	<0.0010	0.014	0.038	<0.0010	<0.0010	<0.0050	<0.011	<0.0050	0.74	<0.00020	<0.010	<0.010	<0.00050	0.857 ± 0.590	2.57 ± 0.665	3.427	<0.30
5/11/2016	430.72	10.8	2.2	613	2340	6.7	3010	9930	<0.0010	0.0059	0.027	<0.0010	<0.0010	<0.0050	0.0079	<0.0050	0.87	<0.00020	<0.010	<0.010	<0.00050	0.859 ± 0.561	3.13 ± 0.822	3.989	<0.30
8/16/2016	430.78	11.9	2.1	680	2440	6.7	3080	7870	<0.0020	<0.0050	0.021	<0.0010	<0.0010	<0.0050	0.0084	<0.0050	0.84	<0.00020	<0.010	<0.010	<0.0010	0.237 ± 0.329	3.28 ± 0.775	3.517	0.64
11/17/2016	430.80	10.7	1.9	701	2140	6.7	2770	9680	<0.0010	0.0059	0.024	<0.0010	<0.0010	<0.0050	0.0064	<0.0050	0.82	<0.00020	0.024	<0.010	<0.00050	0.923 ± 0.594	3.16 ± 0.826	4.083	0.35
2/23/2017	430.85	13.7	1.9	646	2320	6.9	3110	9630	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	0.8	<0.00020	<0.010	<0.020	<0.00050	1.52 ± 1.50	4.27 ± 1.07	5.79	0.46
6/7/2017	431.12	11	1.9	640	2420	7.5	2970	14200	<0.0010	<0.0050	0.016	<0.0010	<0.0010	<0.0050	0.0051	<0.0050	0.75	<0.00020	<0.020	<0.010	<0.00050	0.344 ± 0.415	3.82 ± 0.931	4.164	1.3
8/24/2017	431.20	11.4	1.9	664	2520	6.8	3710	9600	<0.0010	<0.010	0.017	<0.0010	<0.0020	<0.0050	0.0065	<0.010	0.729	<0.00020	<0.020	0.026	<0.00050	1.12 ± 0.610	3.78 ± 0.960	4.9	0.32
12/20/2017	429.47	6.198	2.2	716	2590	7.2	3100	9600	<0.0010	<0.012	0.022	<0.0010	<0.010	<0.014	0.0072	<0.020	0.74	<0.00020	<0.030	<0.040	<0.00050	0.945 ± 0.578	4.07 ± 0.940	5.015	<0.50
6/21/2018	430.02	12.66	1.9	706	2840	7.09	3400	10200	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.6
12/13/2018	430.72	11.89	2.58	690	2740	6.71	3220	10500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.618
6/24/2019	432.28	10.77	1.7	656	2420	7.0	3480	9560	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.18
12/10/2019	430.19	8.676	1.48	660	2180	6.93	2620	8120	n/a	0.00219	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.010	n/a	n/a	n/a	n/a	0.229
4/8/2020	430.07	13	1.9	650	2410	6.8	3120	9820	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
11/10/2020	430.96	13.7	2.13	715	2350	6.8	2830	9670	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
6/22/2021	431.88	11.3	1.83	704	2780	6.82	3370	9500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
12/15/2021	430.79	12	2.02	656	2350	6.83	2970	8780	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.254
5/10/2022	430.63	14.5	2.28	630	2370	6.93	3040	8900	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11/22/2022	429.45	10.2	2.39	687	2700	6.74	3420	10500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.341
6/1/2023	431.45	12.7	1.29	509	2810	7.35	3760	12800	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.944
8/22/2023	n/a	n/a	1.4	650	1550	6.74	2290	7700	0.0077	<0.0050	0.0194	<0.0010	<0.0050	<0.0050	<0.0050	<0.020	0.512	<0.00050	<0.010	<0.020	<0.00050	n/a	n/a	4.686	0.577
12/20/2023	429.42	8.81	1.6	690	1400	7.1	2400	8000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
MW-3																									
12/14/2015	421.77	1.17	0.35	67.6	12.3	7.2	135	586	<0.0010	<0.0050	0.021	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	<0.050	<0.00020	<0.010	<0.010	<0.00050	0.997 ± 0.813	0.736 ± 0.505	1.733	0.62
2/25/2016	421.66	6.04	1.2	479	347	7	2430	5400	<0.0010	0.0061	0.052	<0.0010	<0.0010	<0.0050	0.0098	<0.0050	0.85	<0.00020	<0.010	<0.010	<0.00050	1.26 ± 0.762	3.02 ± 0.791	4.28	0.9
5/11/2016	421.94	3.82	1.1	465	349	6.5	2330	5440	<0.0010	<0.0050	0.024	<0.0010	<0.0010	<0.0050	0.0059	<0.0050	0.65	<0.00020	<0.010	<0.010	<0.00050	1.54 ± 0.797	1.62 ± 0.547	3.16	<0.30
8/16/2016	420.42	6.01	1.2	505	381	7.3	2950	5680	<0.0010	<0.0050	0.018	<0.0010	<0.0010	<0.0050	0.006	<0.0050	0.98	<0.00020	<0.010	<0.010	<0.00050	0.891 ± 0.626	5.10 ± 1.13	5.991	<0.30
11/17/2016	421.03	5.43	1.1	494	322	6.6	2420	5420	<0.0010	<0.0050	0.028	<0.0010	<0.0010	<0.0050	0.0068	<0.0050	0.94	<0.00020	<0.020	<0.010	<0.00050	0.872 ± .0579	5.23 ± 1.30	6.102	<0.30
2/23/2017	422.58	6.79	1.1	389	202	7	1450	2900	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	0.7	<0.00020	<0.010	<0.020	<0.00050	-0.239 ± 1.09	4.07 ± 1.03	3.831	0.45
6/7/2017	422.23	3.68	1.2	486	327	7.1	2260	4740	<0.0010	<0.0050	0.015	<0.0010	<0.0010	<0.0050	0.0058	<0.0050	0.62	<0.00020	<0.020	<0.010	<0.00050	0.941 ± 0.658	2.76 ± 0.765	3.701	0.57
8/24/2017	419.66	6.55	1.1	519	401	6.5	2890	6160	<0.0010	<0.010	0.014	<0.0010	<0.0020	<0.0050	0.0084	<0.010	1.03	<0.00020	<0.020	<0.020	<0.00050	1.26 ± 0.600	4.41 ± 1.07	5.67	<0.30
12/20/2017	421.08	6.459	1.3	563	380	6.8	2830	5790	<0.0010	<0.0060	0.034	<0.0010	<0.0050	<0.0070	0.0086	<0.010	0.92	<0.00020	<0.030	<0.020	<0.00050	0.626 ± 0.567	2.77 ± 0.728	3.396	0.61
6/21/2018	418.68	6.633	1.13	526	396	6.76	3160	6090	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.3
12/13/2018	422.36	4.47	1.08	327	206	6.61	1790	3520	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.662
6/24/2019	423.00	5.659	0.99	452	306	6.6	3130	5740	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.18
12/10/2019	419.87	6.189	1.26	572	345	6.67	3140	5830	n/a	0.0024	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.010	n/a	n/a	n/a	n/a	0.137
4/8/2020	422.06	6.46	1.1	530	307	6.5	3020	5980	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
11/10/2020	420.03	7.21	3.07	597	1160	7.1	2950	6920	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
6/22/2021	421.46	6.06	1.02	469	300	6.77	3170	5080	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
12/15/2021	420.96	6.71	1.24	518	318	6.54	2970	5500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
5/10/2022	420.24	6.89	1.07	420	299	6.66	2760	5060	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11/22/2022	420.29	6.75	1.61	589	295	6.56	3130	6560	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.225
6/1/2023	421.06	6.55	1.18	491	293	7.11	3430	7840	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1
8/22/2023	n/a	n/a	1.13	533	287	6.71	3120	5610	<0.0010	0.0468	0.0111	<0.0010	<0.0050	<0.0050	0.0043	0.0072	1.12	<0.00020	<0.010	<0.020	<0.00050	n/a	n/a	3.746	0.476
12/20/2023	418.34	7.09	1.1	580	320	6.8	2800	6200	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
BW-1																									
12/14/2015	465.60	5.35	1.8	465	727	9.5	2130	4900	<0.0010	<0.0050	0.17	<0.0010	<0.0010	0.015	0.0026	<0.0050	0.7	<0.00020	<0.010	<0.010	0.00073	0.900 ± 0.728	1.13 ± 0.513	2.03	<0.30
2/25/2016	465.44	5.8	3.5	586	1050	7.4	2690	6420	<0.0010	0.015	0.055	<0.0010	<0.0010	0.0053	0.0035	0.0069	0.71	<0.00020	<0.010	<0.010	<0.00050	0.887 ± 0.697	1.82 ± 0.541	2.707	0.67
5/11/2016	465.56	7.5	4	566	1120	7	2610	6360	<0.0010	0.0084	0.04	<0.0010	<0.0010	0.011	0.0035	0.0091	0.79	<0.00020	<0.010	<0.010	<0.00050	2.40 ± 0.944	2.80 ± 0.710	5.2	0.32
8/16/2016	465.71	7.52	3.7	566	1130	7.2	2720	6280	<0.0010	0.0064	0.04	<0.0010	<0.0010	0.0073	0.0029	<0.0050	0.78	<0.00020	<0.010	<0.010	<0.00050	0.610 ± 0.483	3.42 ± 0.777	4.03	0.94
11/17/2016	466.12	7.36	2.8	548	991	6.8	2590	6400	<0.0010	0.0066	0.023	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.74	<0.00020	0.022	<0.010	<0.00050	0.605 ± 0.548	2.94 ± 0.799	3.545	0.85
2/23/2017	466.57	7.17	3.1	532	1080	7.2	2760	6280	<0.0010	<0.010	<0.20	<0.0050	<0.0050	<0.010	<0.010	<0.0050	0.73	<0.00020	<0.010	<0.020	<0.00050	0.816 ± .0983	4.07 ± 1.08	4.886	<0.30
6/7/2017	466.17	7.58	3.8	539	1020	7.7	2220	7320	<0.0010	<0.0050	0.026	<0.0010	<0.0010	<0.0050	<0.0025	<0.0050	0.79	<0.00020	<0.020	<0.010	<0.00050	1.36 ± 0.685	3.13 ± 0.783	4.49	<0.30
8/24/2017	466.38	7.81	3.4	531	1160	7.1	2870	7260	<0.0010	<0.010	0.037	<0.0010	<0.0020	<0.0050	<0.0050	<0.010	0.738	<0.00020	<0.020	<0.020	<0.00050	1.58 ± 0.602	2.80 ± 0.759	4.38	0.37
12/20/2017	466.51	7.063	3.5	658	1030	7.2	2620	6140	<0.0010	<0.0060	0.044	<0.0010	<0.0050	<0.0070	0.0034	<0.010	0.73	<0.00020	<0.030	<0.020	<0.00050	1.07 ± 0.681	3.13 ± 0.788	4.2	<0.50
6/21/2018	466.13	7.755	3.31	610	1200	7.22	3030	6640	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.3
12/13/2018	467.24	7.159	3.25	637	1120	7.1	2780	6400	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.586
6/24/2019	467.37	7.21	3.1	564	1160	7.1	2930	6380	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.9
12/10/2019	467.39	6.612	2.98	591	1150	7.11	2830	6300	n/a	0.00236	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.010	n/a	n/a	n/a	n/a	0.309
4/8/2020	467.63	8.15	3.7	545	1070	6.9	2760	6660	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
11/10/2020	468.39	8.28	3.14	612	1170	7.1	2710	6000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.20
6/22/2021	468.37	7.54	3.39	607	1290	7.05	3170	6560	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.512
12/15/2021	468.76	8.31	3.36	616	1140	6.92	2820	6380	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
5/10/2022	468.67	10.6	3.26	623	1110	7.01	2810	6530	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11/22/2022	468.67	8.1	3.33	619	1210	6.9	3090	6460	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.3
6/1/2023	469.32	8.12	3.44	528	1210	7.53	3220	8660	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.864
8/22/2023	n/a	n/a	2.88	539	1050	7.18	2740	6250	0.00766	0.0112	0.0168	<0.0050	<0.0050	0.0028	<0.0050	<0.020	0.741	<0.00020	<0.010	<0.020	<0.00050	n/a	n/a	3.94	<0.50
12/20/2023	468.97	8.43	3.3	710	1100	7.1	2700	6800	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
MW-4																									
3/24/2021	427.00	7.16	4.1	463	544	7.4	3060	6080	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.38
6/22/2021	427.52	7.43	4.94	418	1100	7.23	3080	5830	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
9/17/2021	425.55	7.88	5.35	431	978	7.46	2940	6390	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.34
12/15/2021	425.18	8.17	5.15	417	1020	7.23	3110	6120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
3/17/2022	n/a	n/a	5.26	404	1120	6.93	2970	6240	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.341
5/10/2022	425.03	11	5.01	456	1060	7.96	2960	6450	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
9/8/2022	488.82	7.98	4.11	512	827	7.09	2880	6570	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.286
11/22/2022	421.13	7.79	5.21	492	935	7.71	2900	6330	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.406
6/1/2023	426.31	8.03	4.97	372	300	7.84	792	1560	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.285
12/20/2023	421.11	7.83	4.7	550	760	7.4	2600	6900	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
MW-5																									
3/24/2021	432.58	9.19	2.7	535	1190	7.2	3400	7760	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.22
6/22/2021	432.29	8.36	2.6	466	1290	7.23	3570	7960	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
9/17/2021	432.13	9.4	2.85	507	1250	7.27	3290	7650	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.378
12/15/2021	432.30	9.4	3.13	513	1330	7.16	3590	7000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.265
3/17/2022	n/a	n/a	3.18	561	1310	6.96	3470	7260	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
5/10/2022	432.40	13.8	3.2	575	1600	6.91	3610	8330	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.50
9/8/2022	432.30	8.9	2.49	555	1140	7.07	3240	7140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.284
11/22/2022	n/a	n/a	3.32	508	1250	7.56	3340	7610	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.504
6/1/2023	433.02	8.82	2.6	470	1280	7.86	3740	9160	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.14
12/20/2023	438.72	9.19	3.3	550	320	7.0	2700	5700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND

40 CFR 257 Appendix III Constituent
40 CFR 257 Appendix IV Constituent
40 CFR 257 Appendix III & IV Constituent
"<" - Indicates analyte was not detected above the laboratory reporting limit
"J" Indicates value is above method detection limit (MDL) but below laboratory reporting limit
ND- indicates constituent was non-detect

Appendix D
Time Series Graphs

Time Series

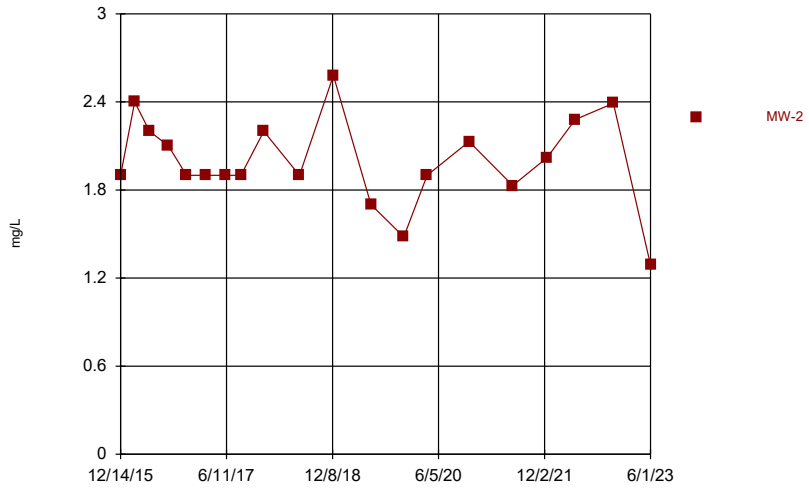


Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

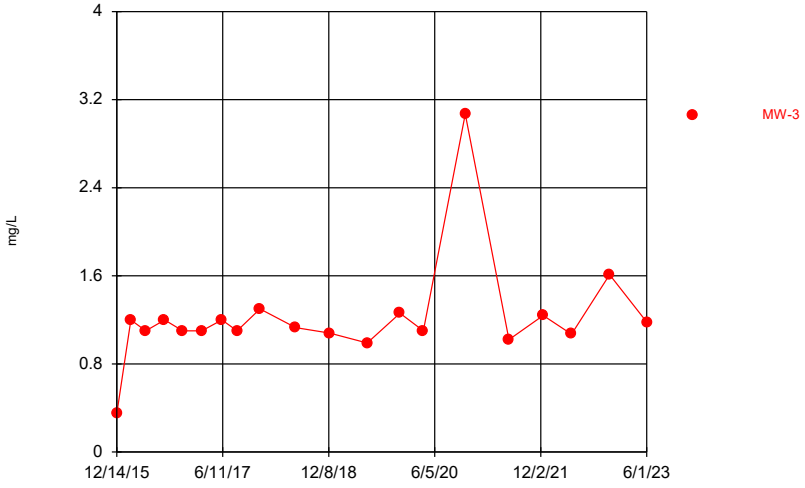


Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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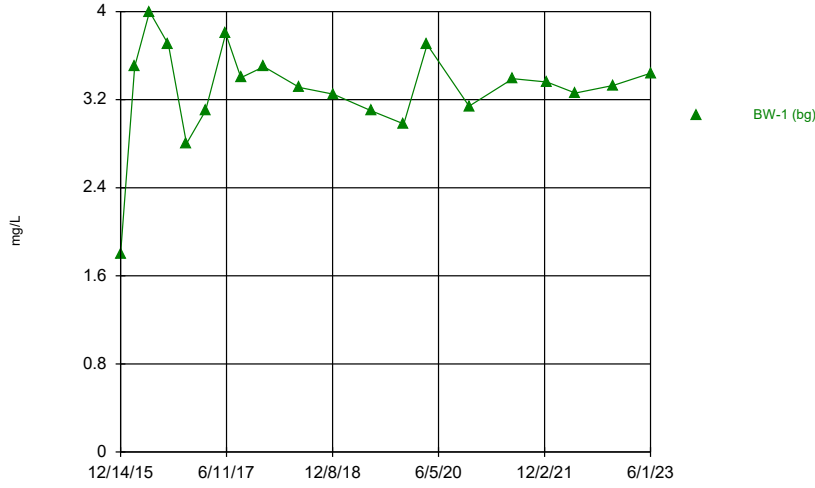
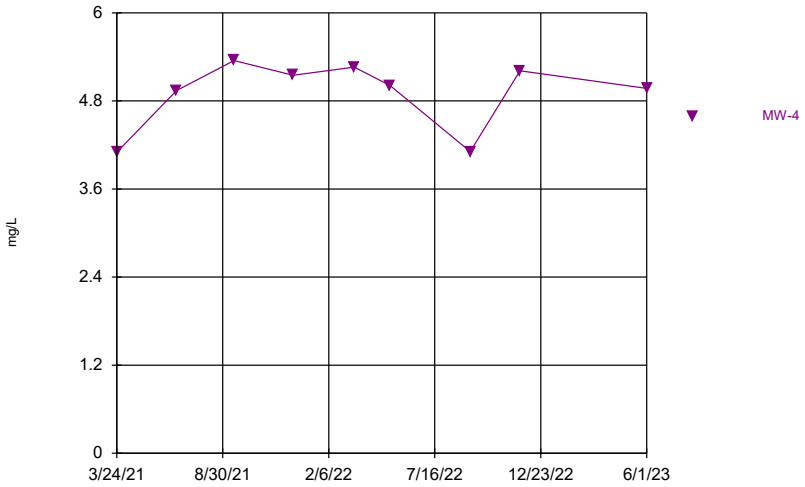
Time Series



Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series

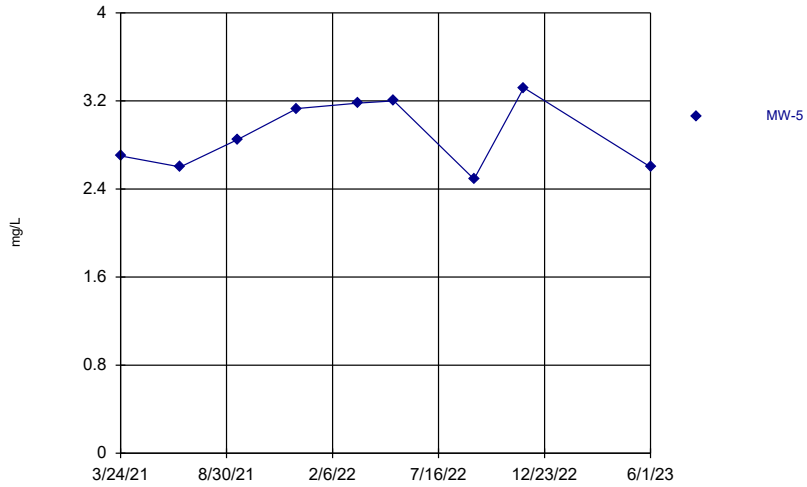


Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

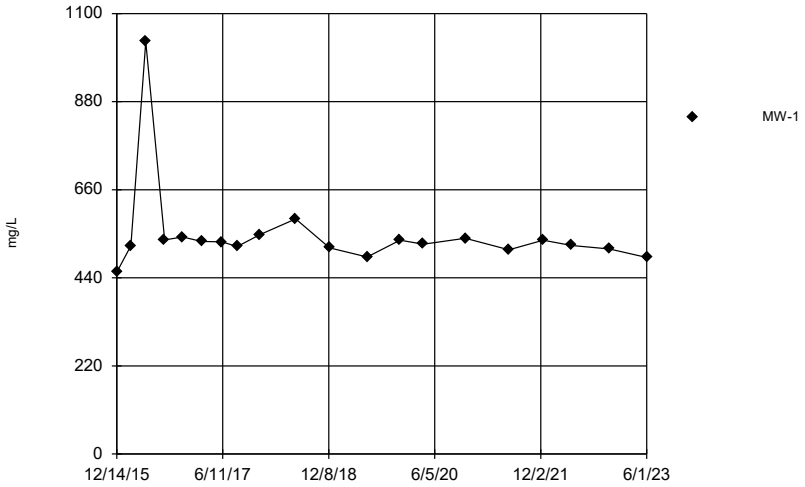


Constituent: Boron Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

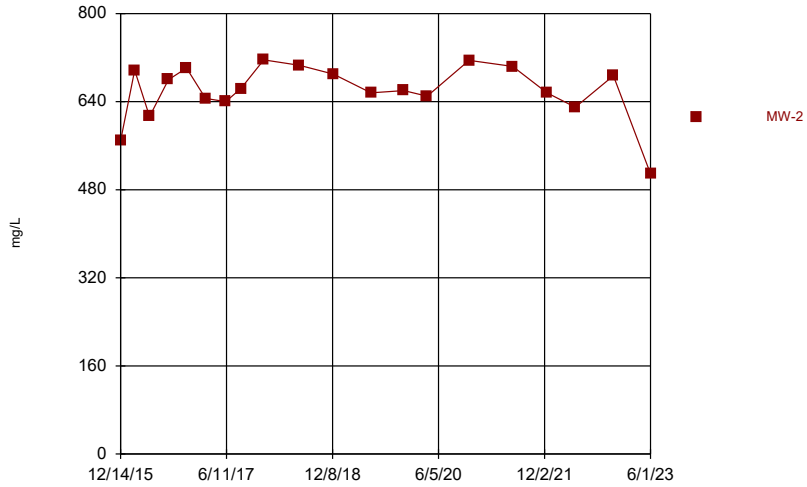


Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

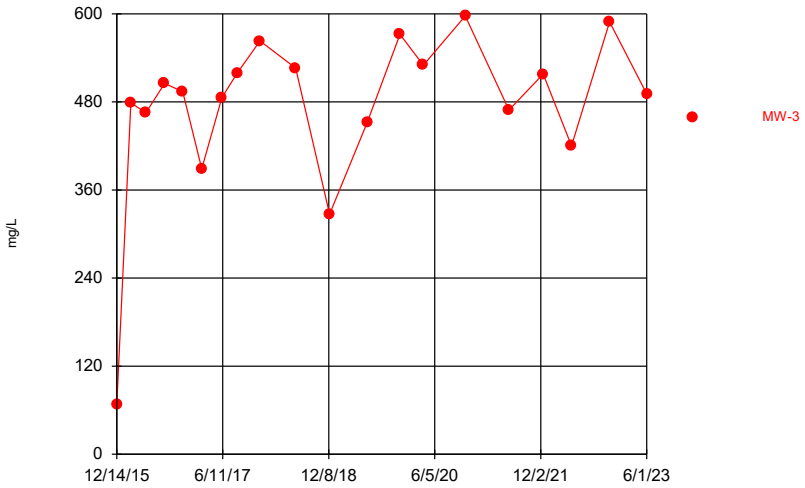
Time Series



Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series

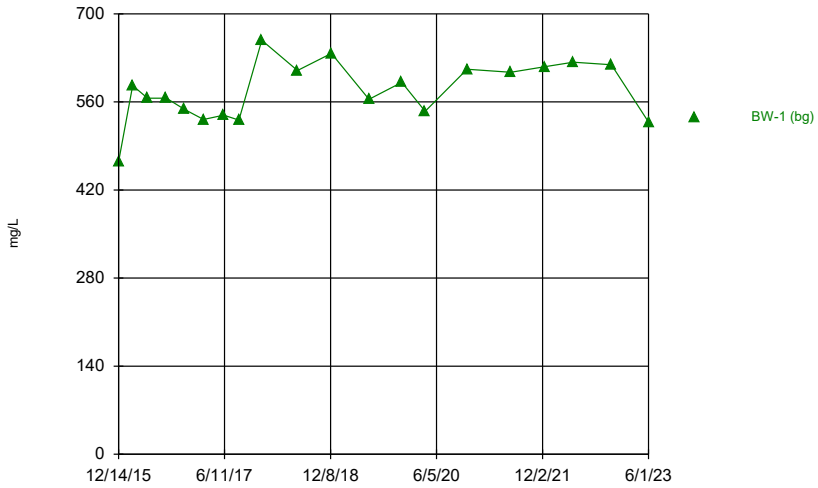


Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

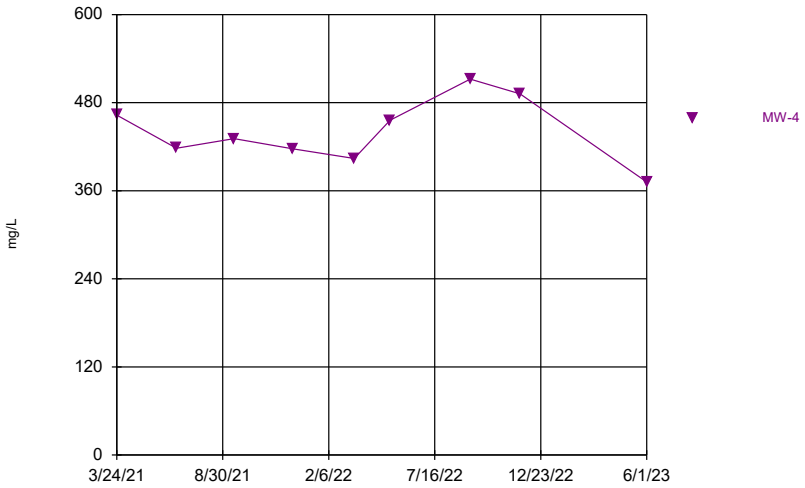


Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

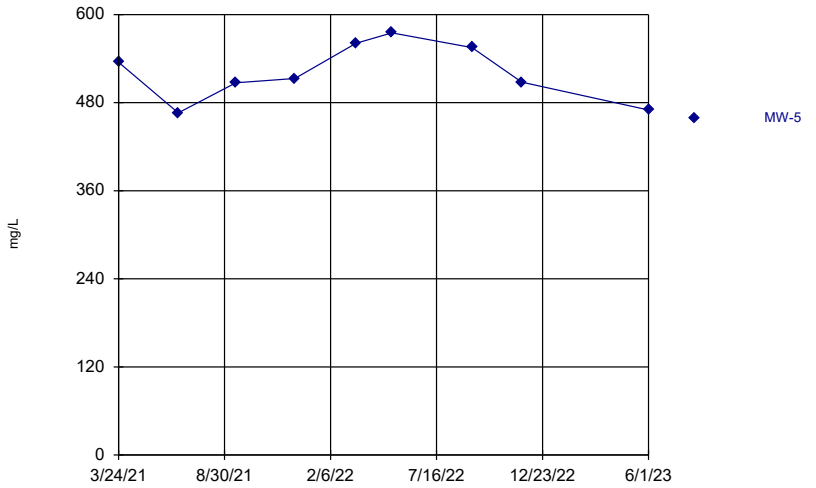


Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

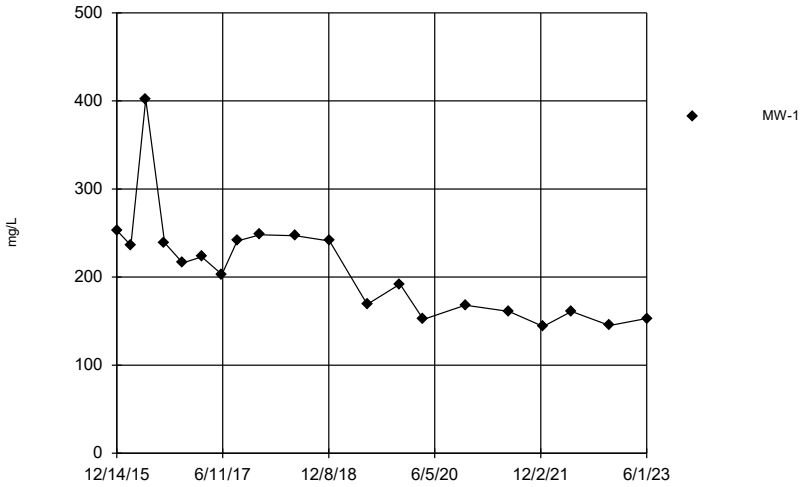
Time Series



Constituent: Calcium Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

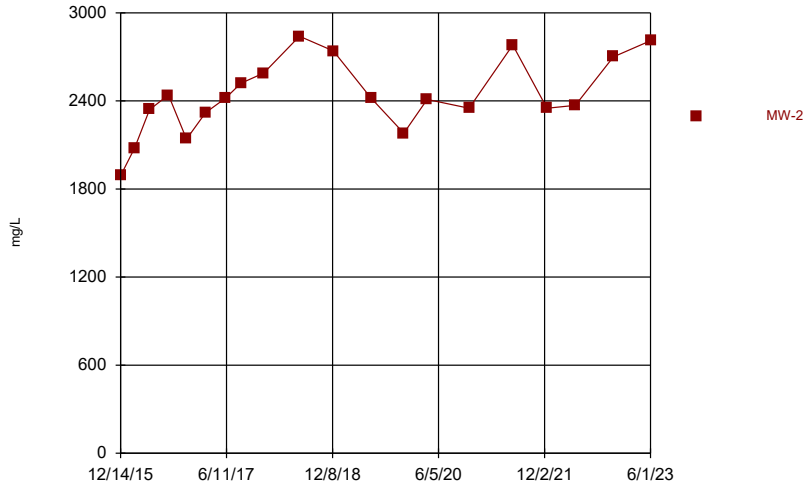
Time Series



Constituent: Chloride Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

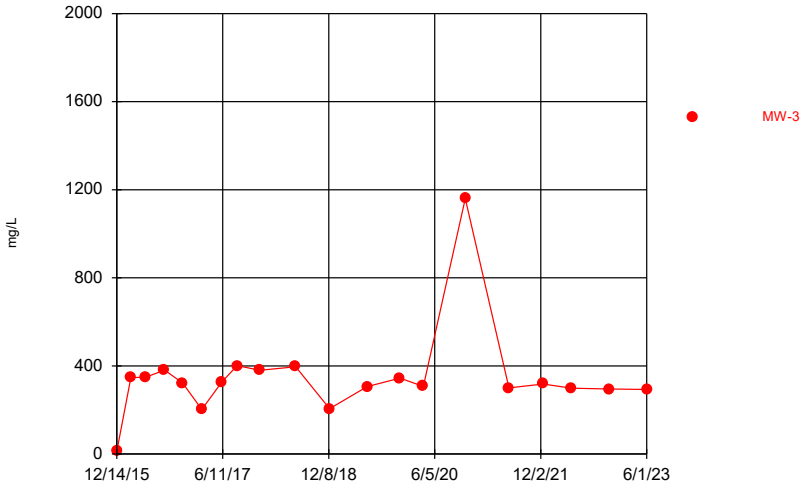
Time Series



Constituent: Chloride Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Chloride Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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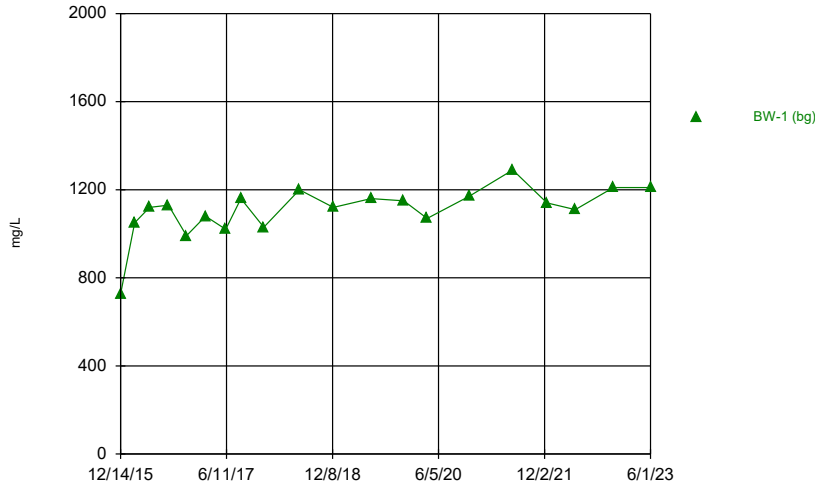
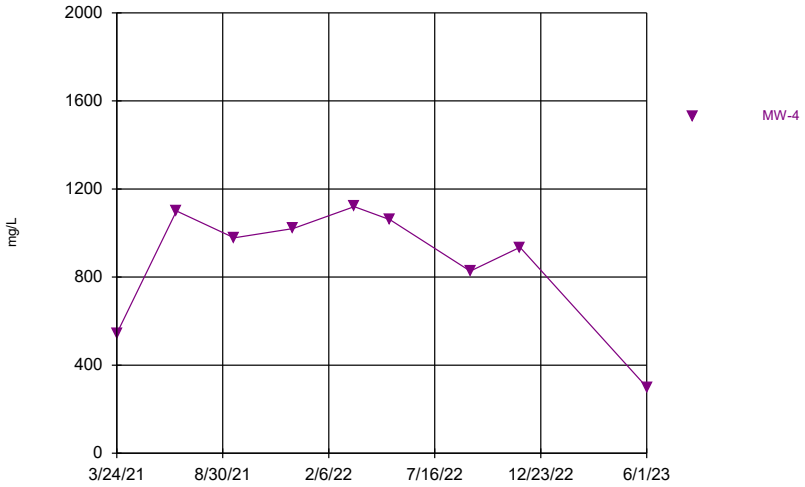
Time Series



Constituent: Chloride Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

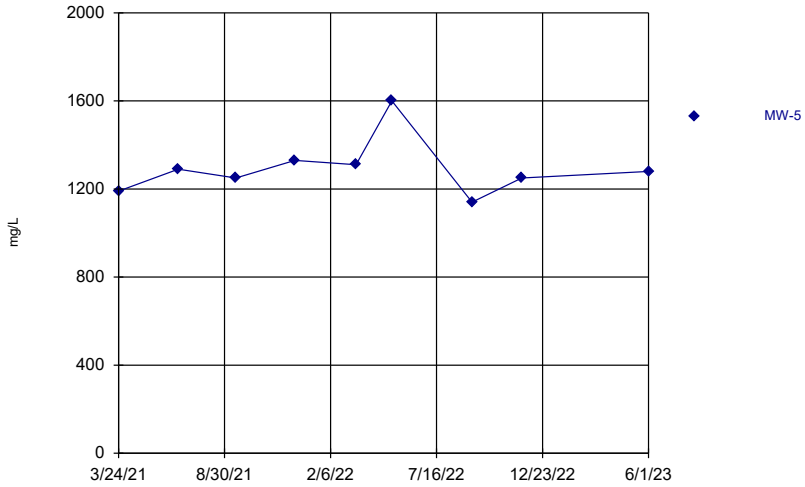


Constituent: Chloride Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

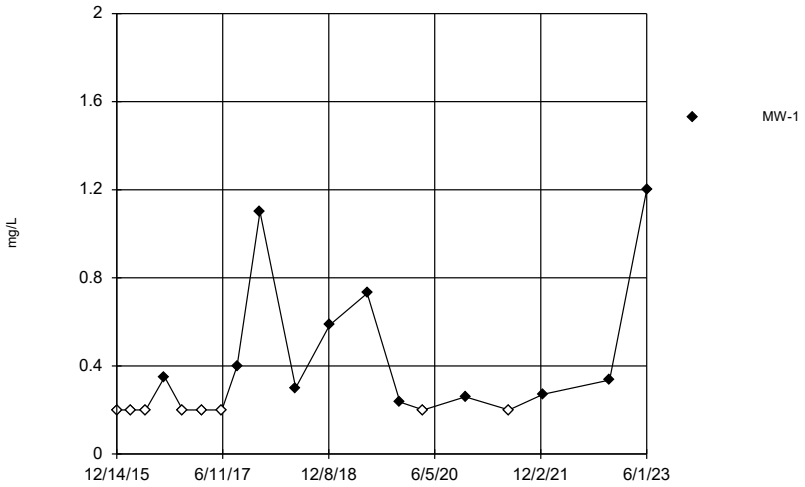


Constituent: Chloride Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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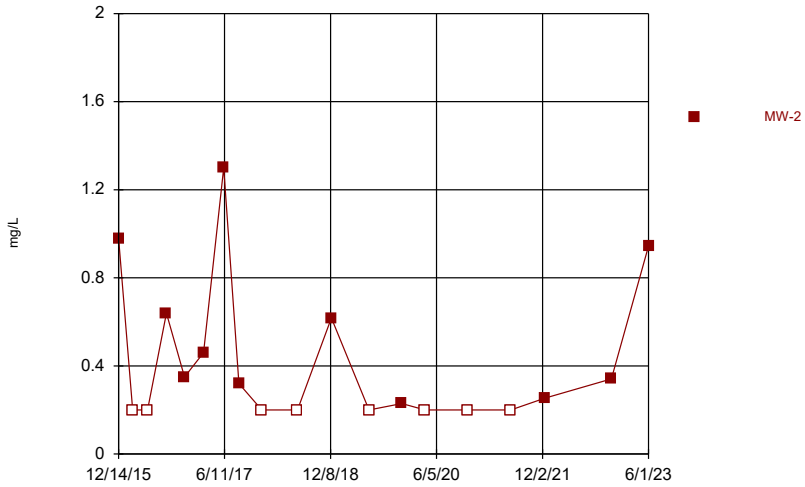
Hollow symbols indicate censored values.

Time Series



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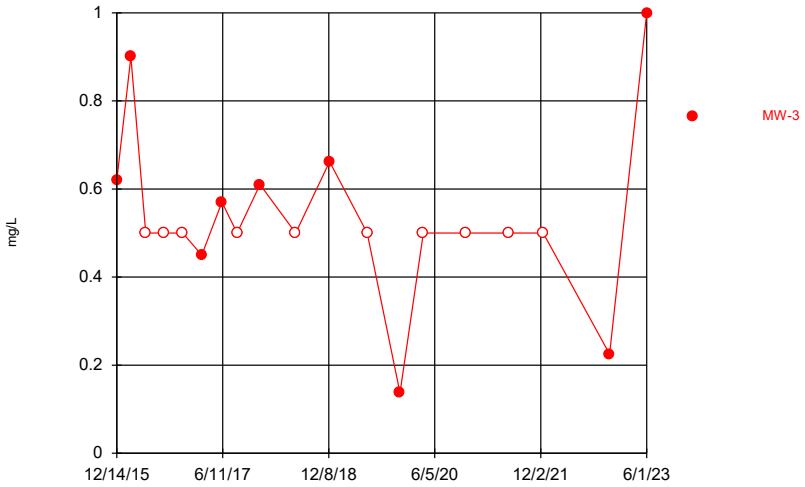
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



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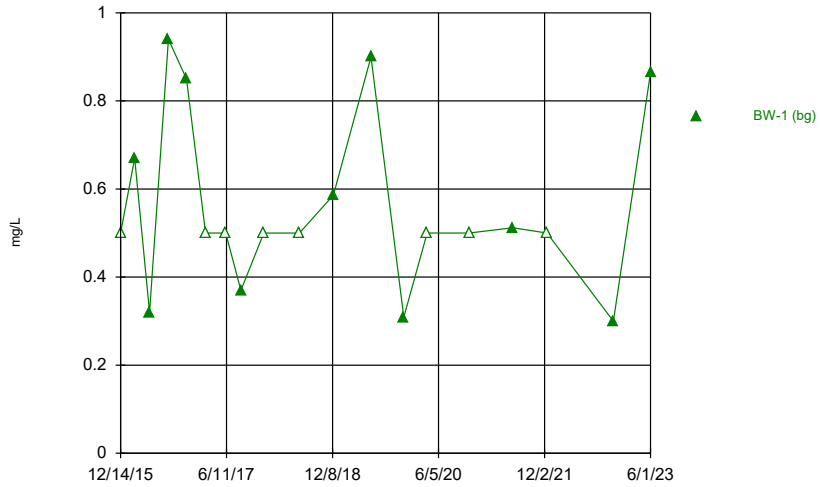
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



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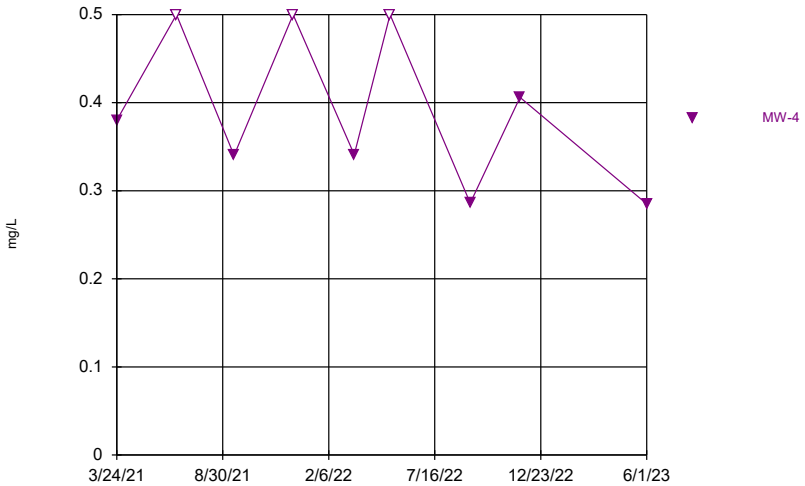
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



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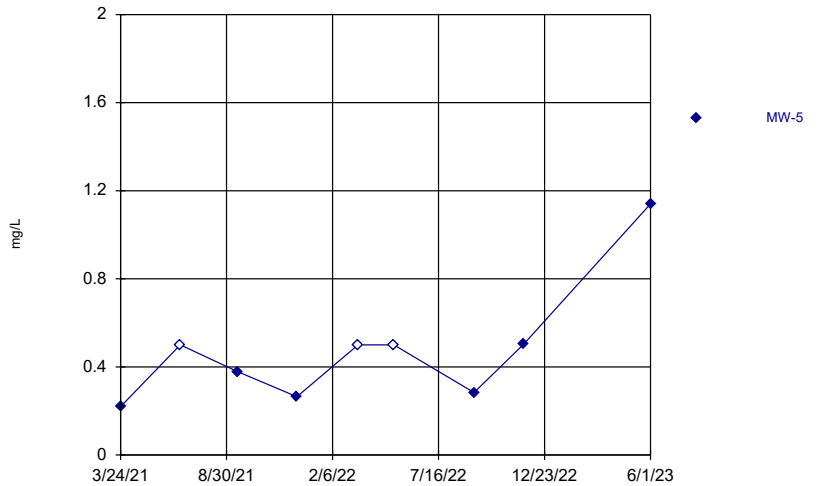
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



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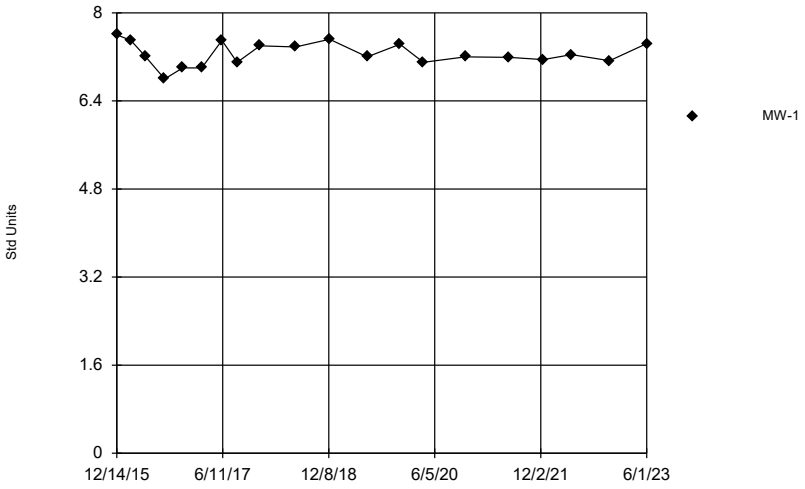
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series

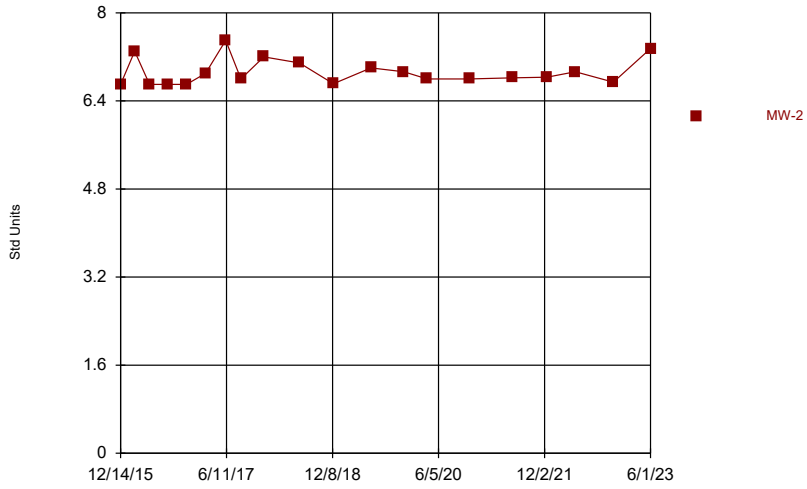


Constituent: pH Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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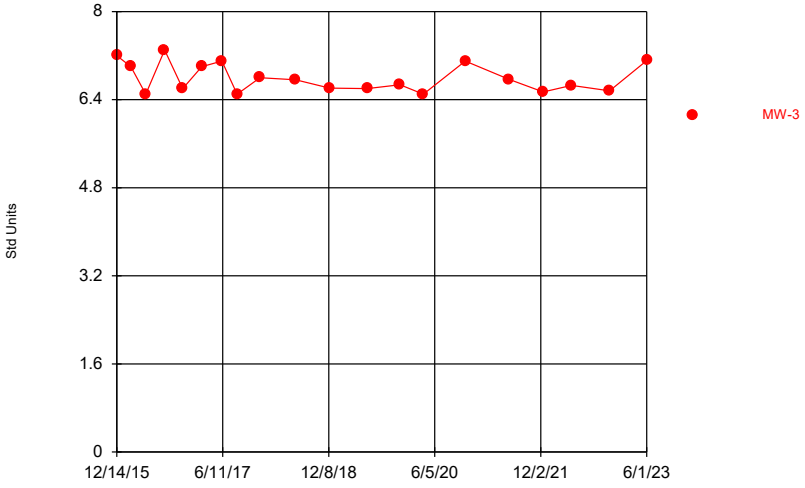
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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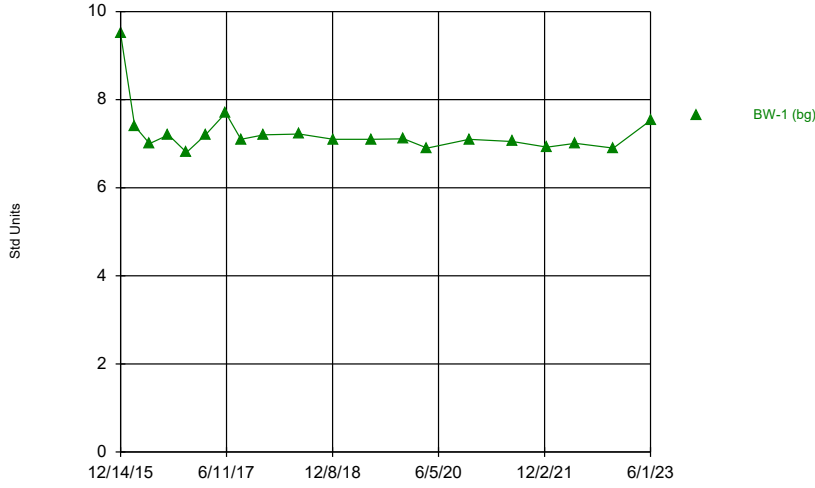
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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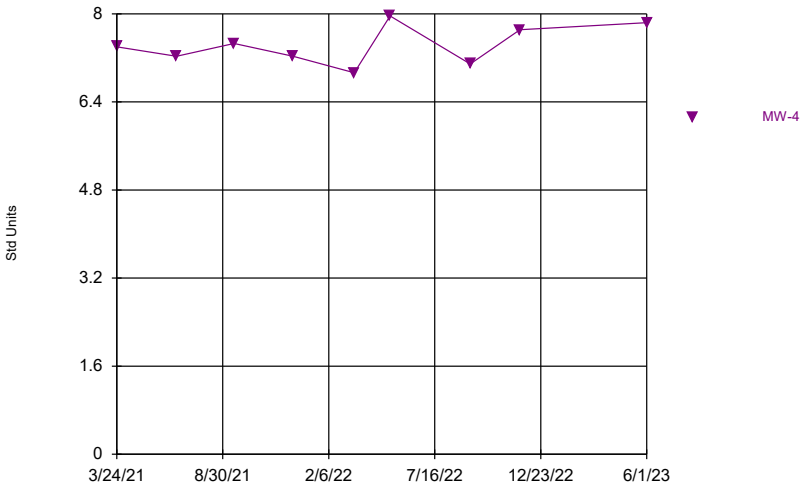
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series



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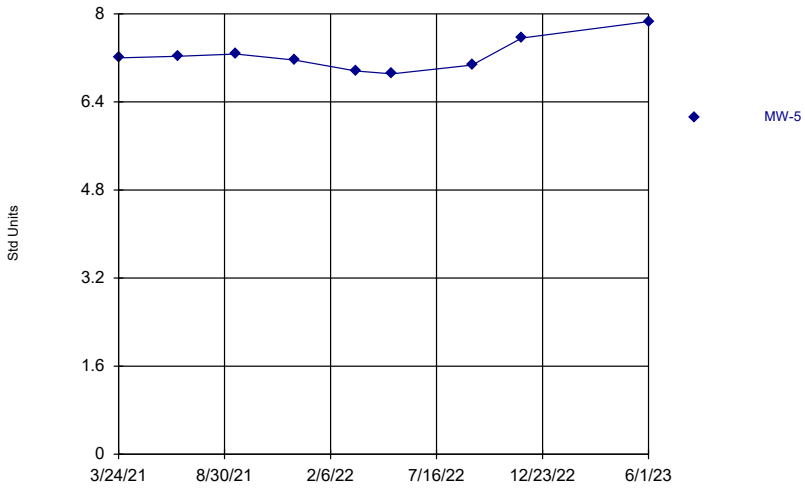
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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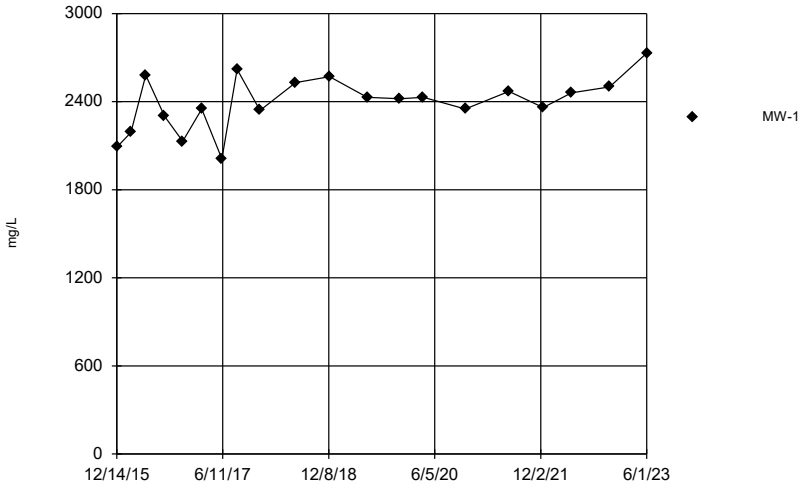
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Sulfate Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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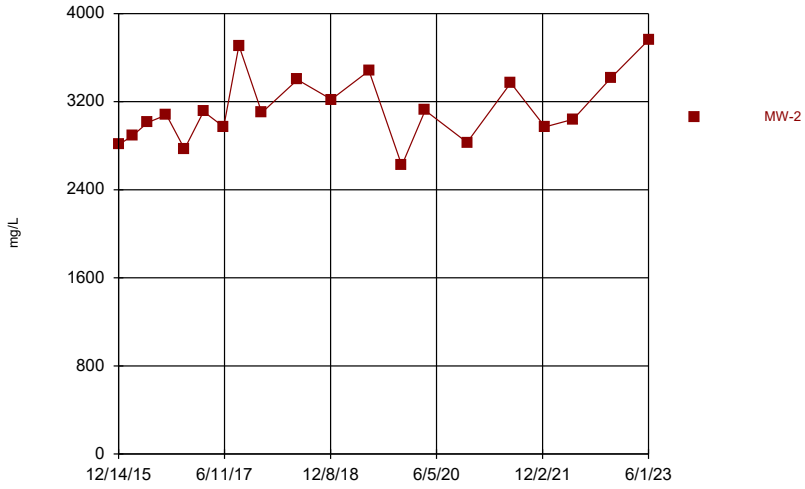
Time Series



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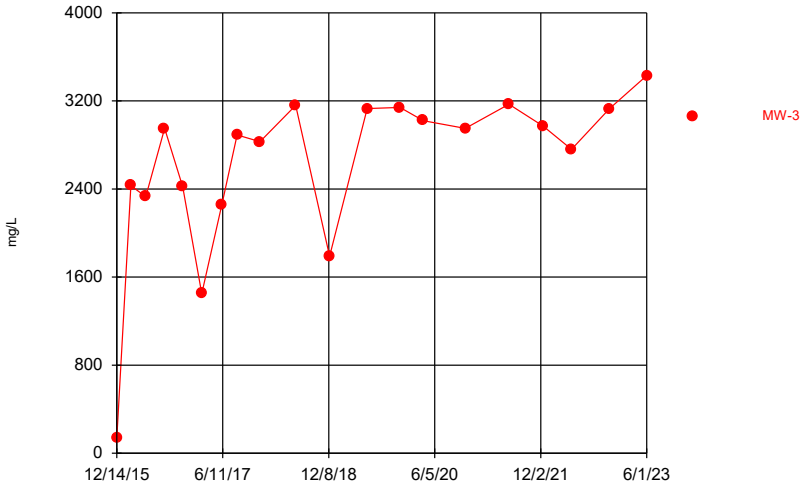

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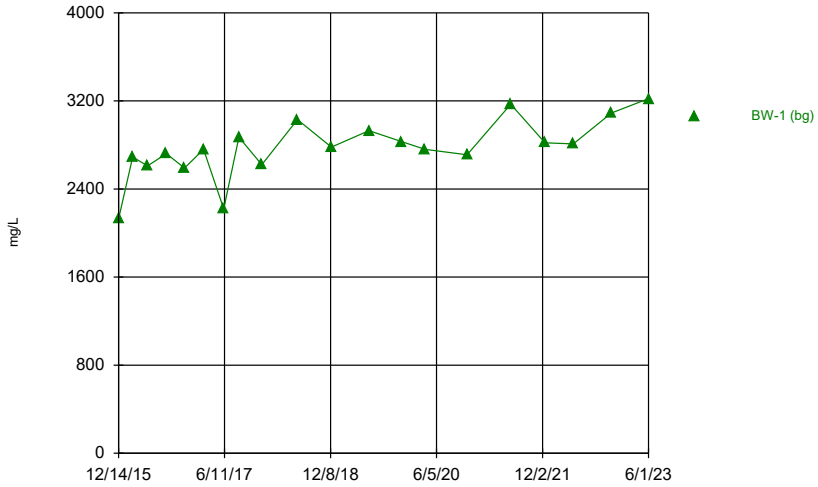
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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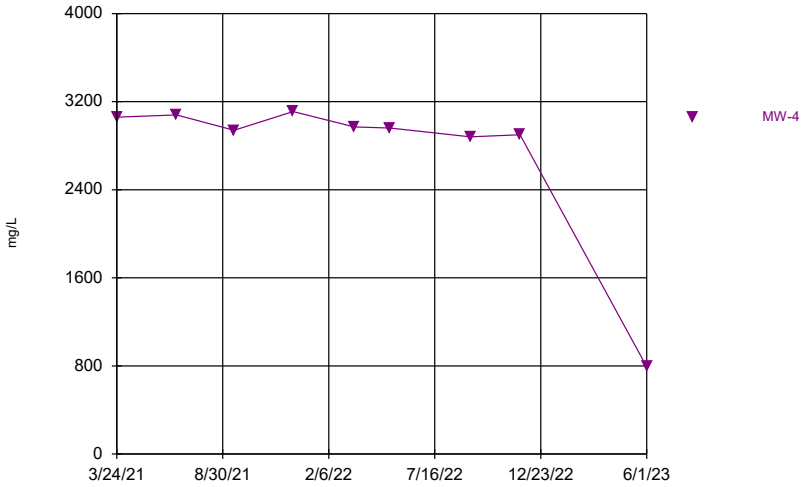
Time Series



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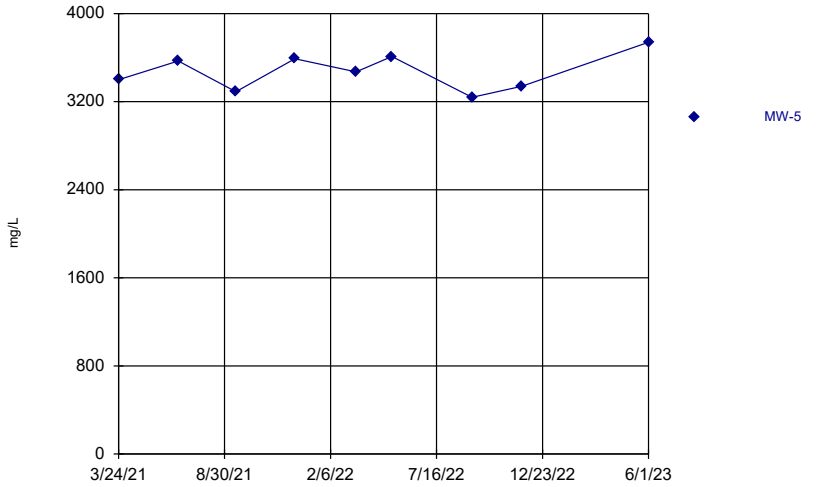
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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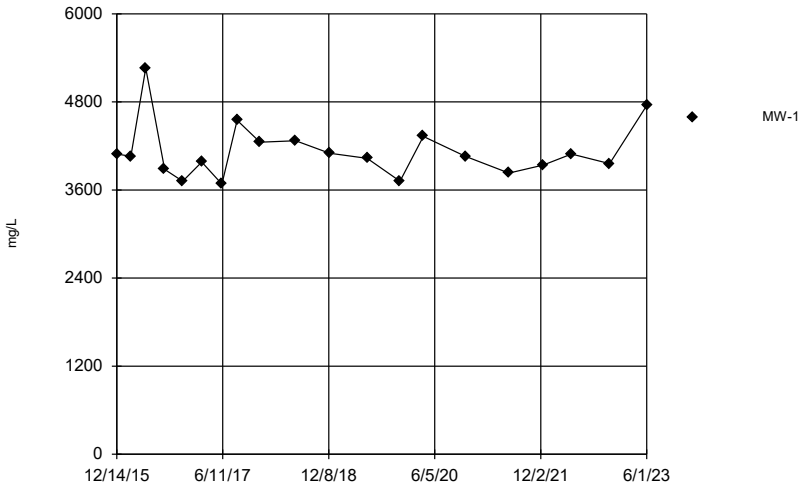
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

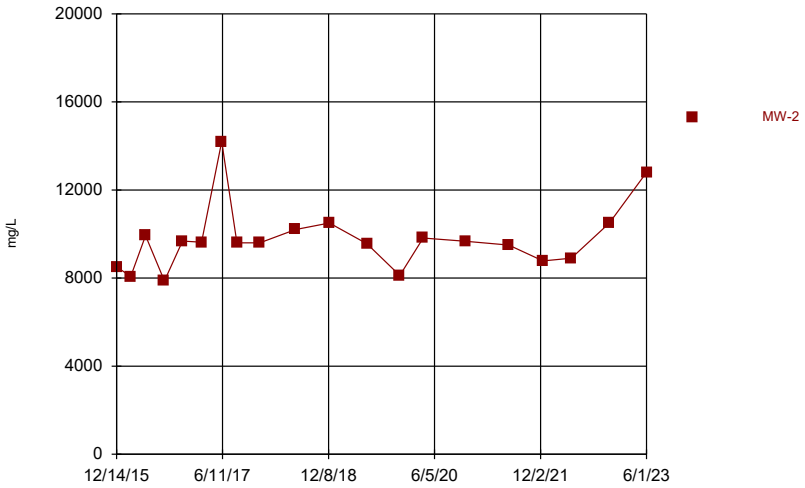
Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

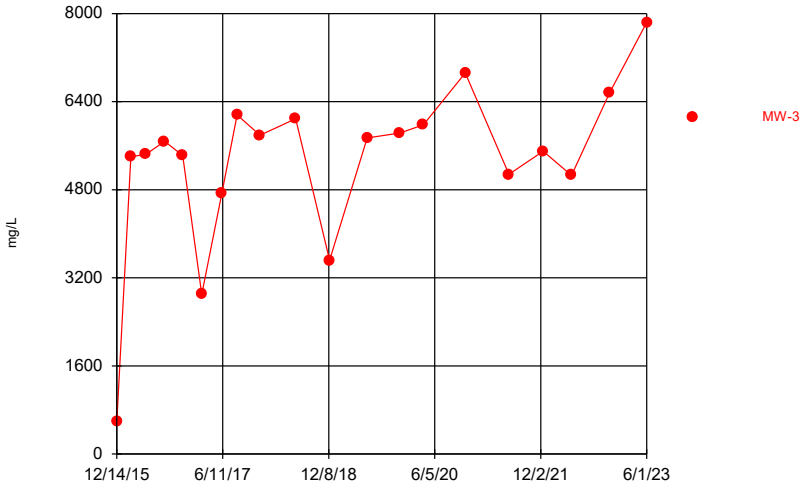
Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Total Dissolved Solids Analysis Run 6/23/2023 11:54 AM
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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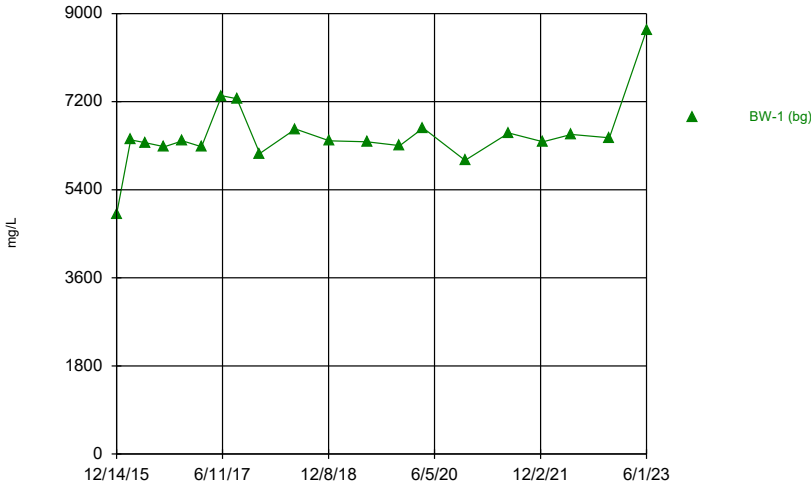
Time Series



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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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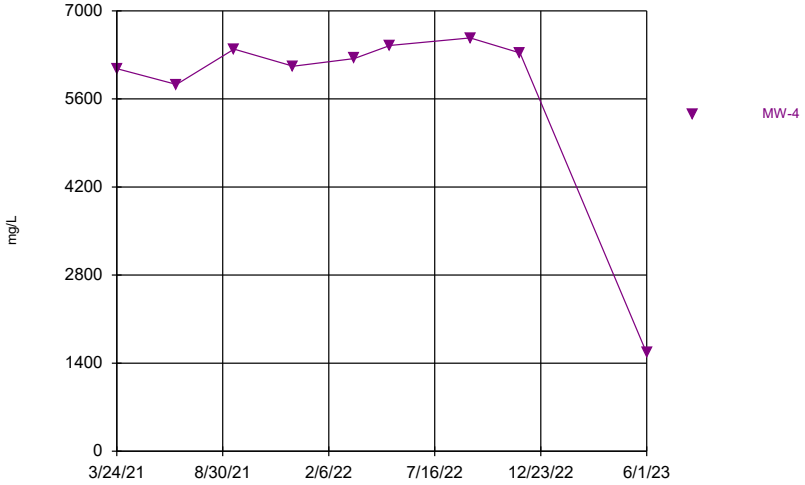

Constituent: Total Dissolved Solids Analysis Run 6/23/2023 11:54 AM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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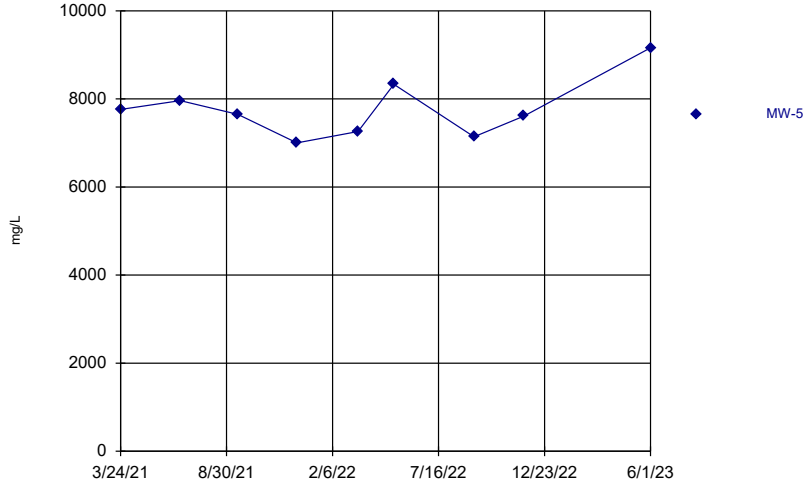
Time Series



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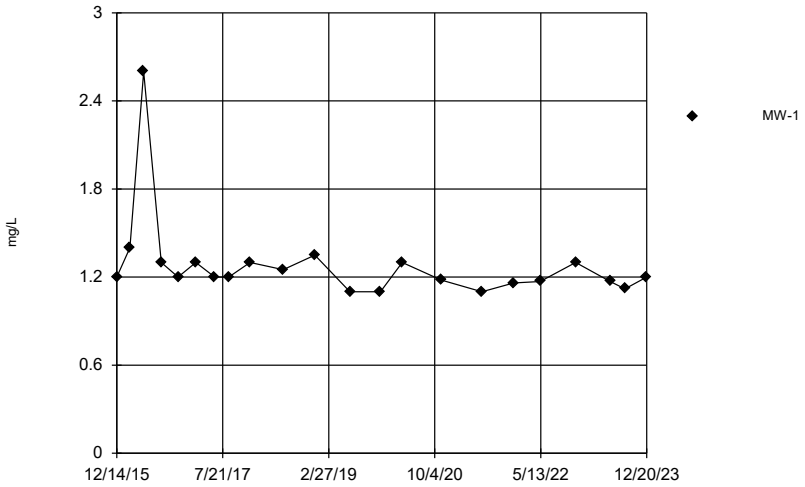
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series

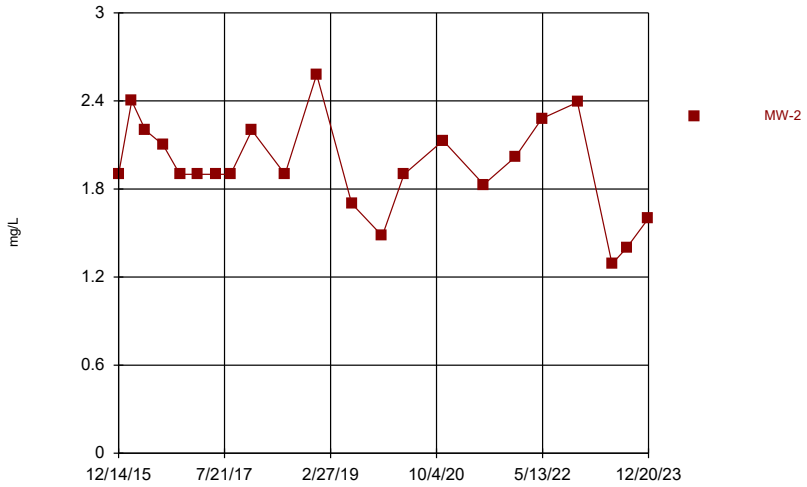


Constituent: Boron Analysis Run 1/18/2024 4:36 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Boron Analysis Run 1/18/2024 4:36 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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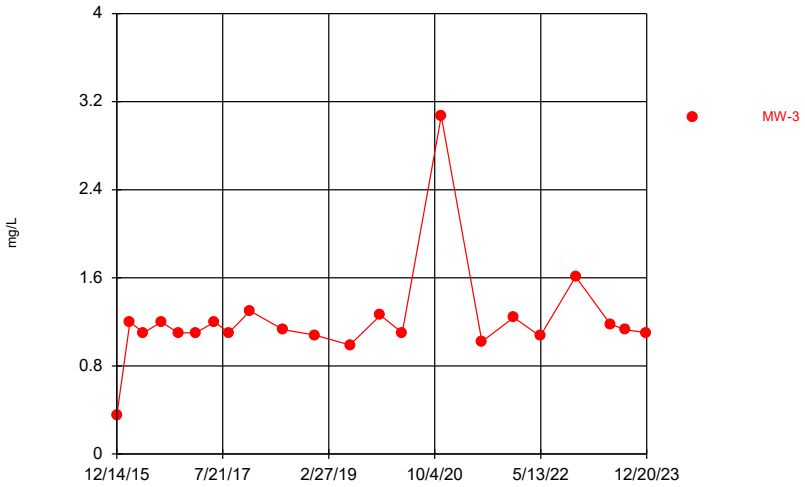
Time Series



Constituent: Boron Analysis Run 1/18/2024 4:36 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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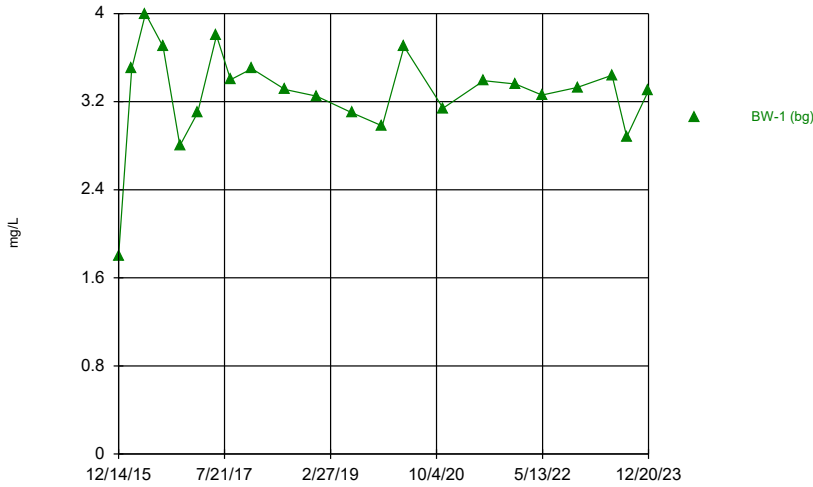
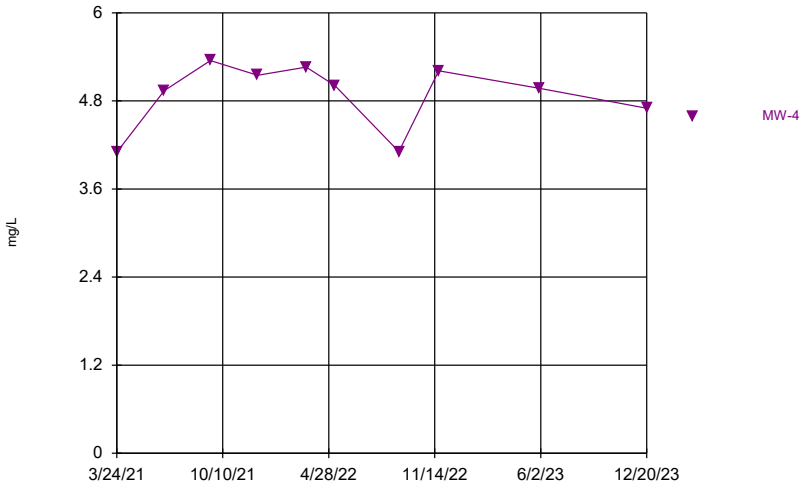
Time Series



Constituent: Boron Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series



Constituent: Boron Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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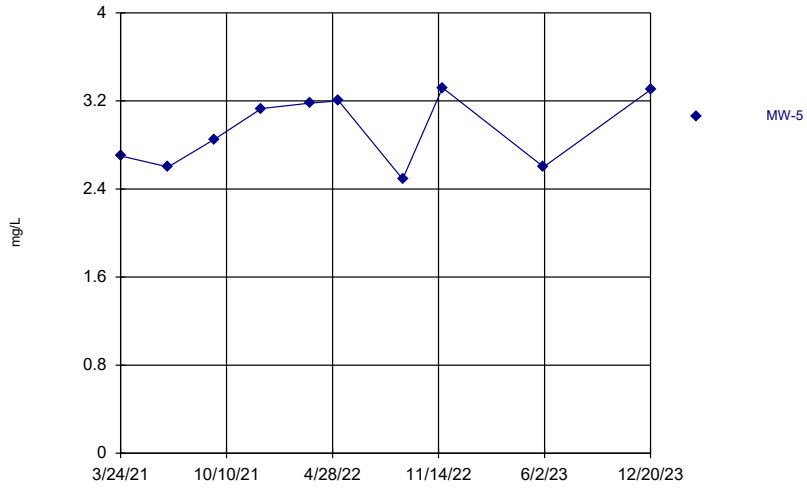
Time Series



Constituent: Boron Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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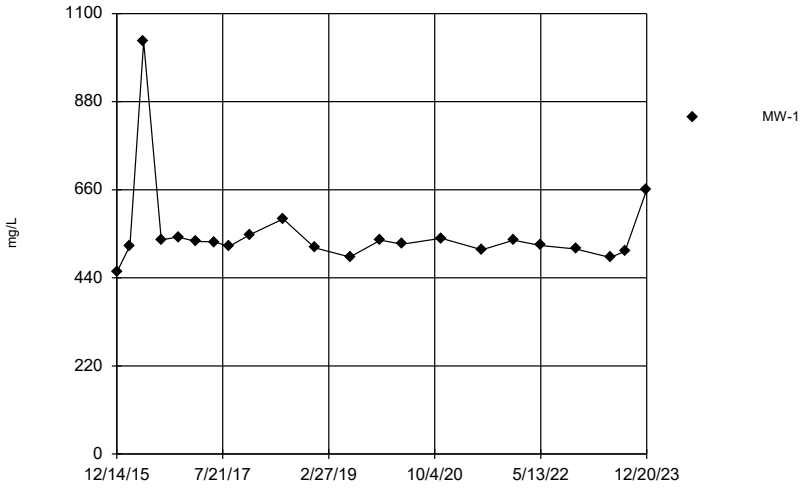
Time Series

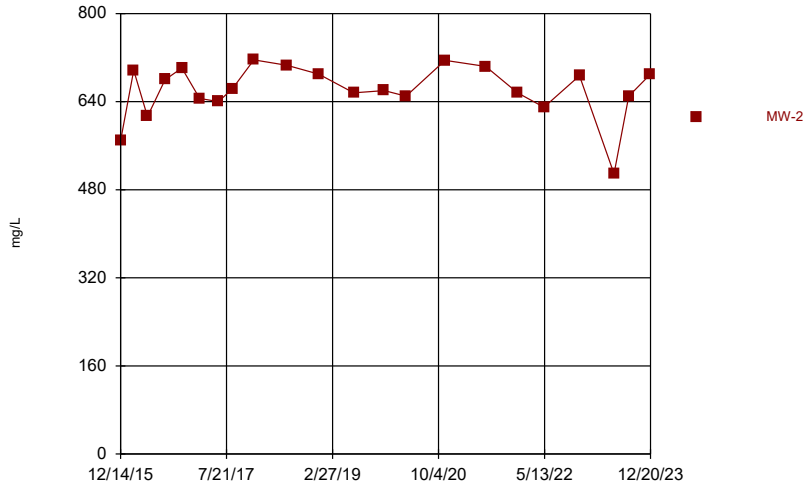


Constituent: Calcium Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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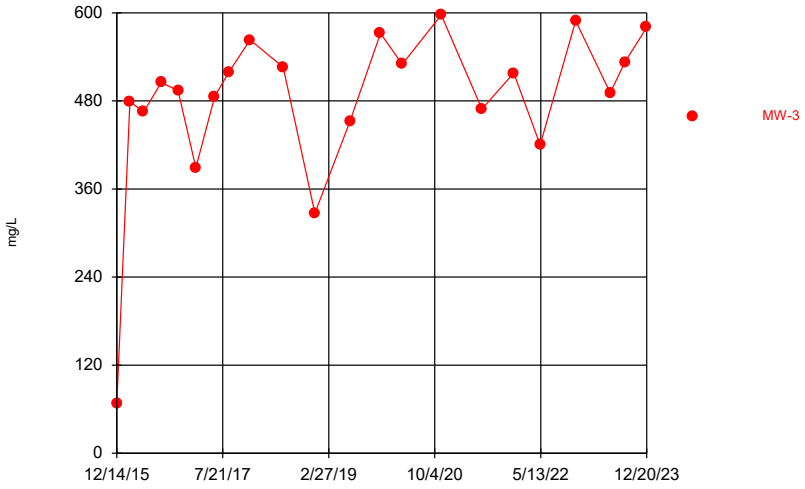
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series



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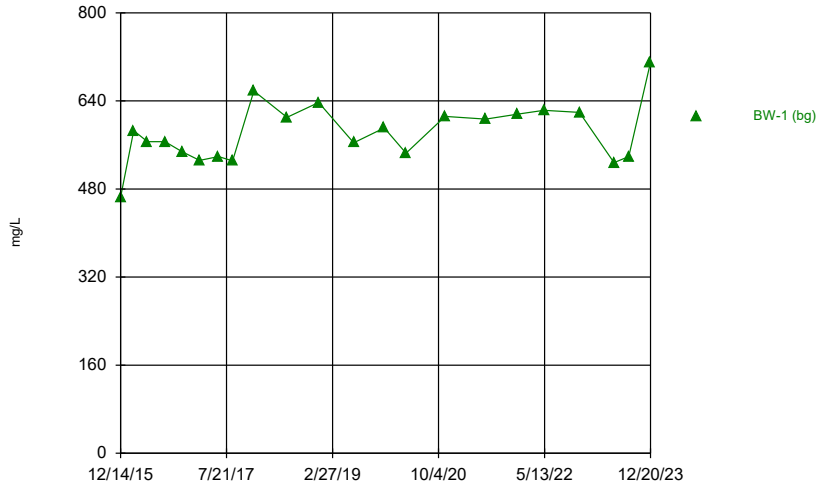
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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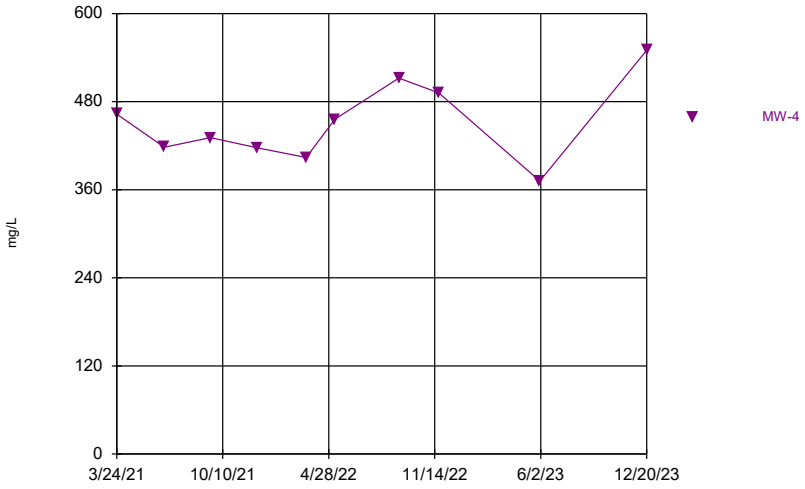
Time Series

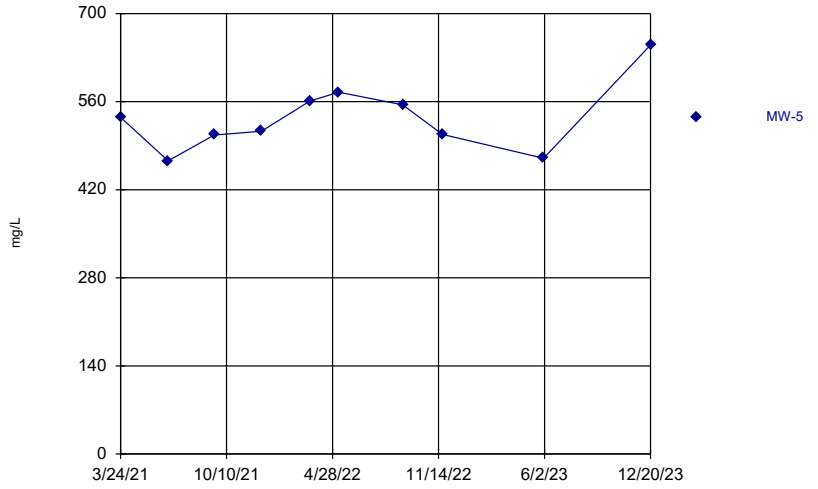


Constituent: Calcium Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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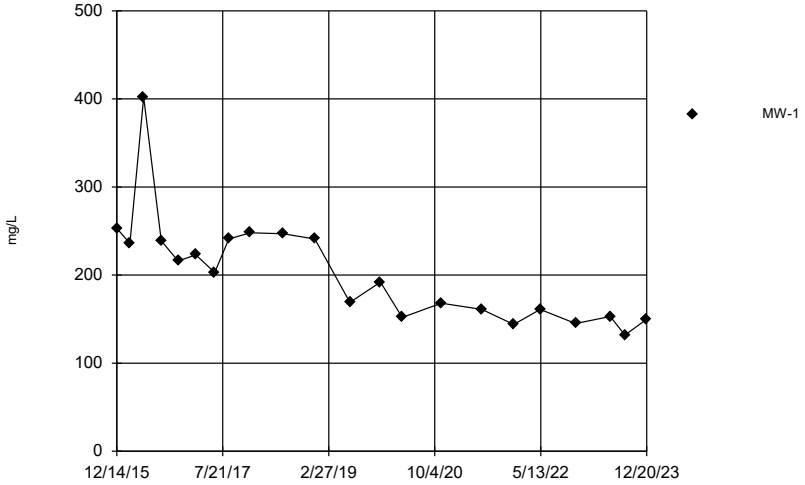
Time Series

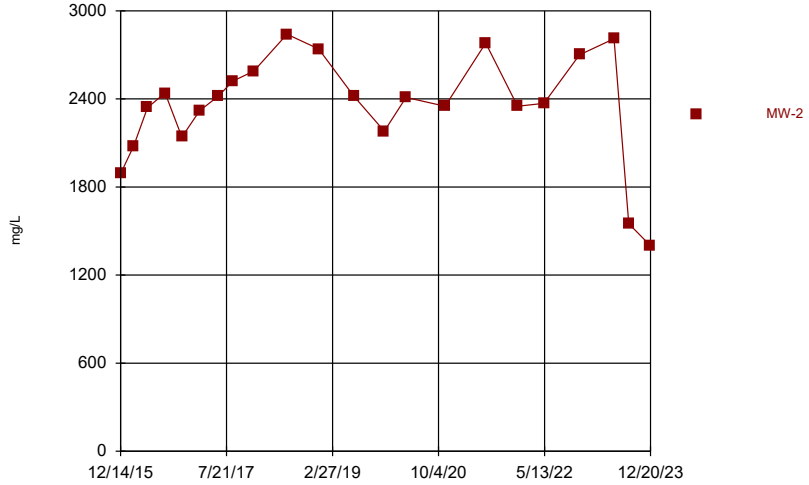


Constituent: Chloride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



Constituent: Chloride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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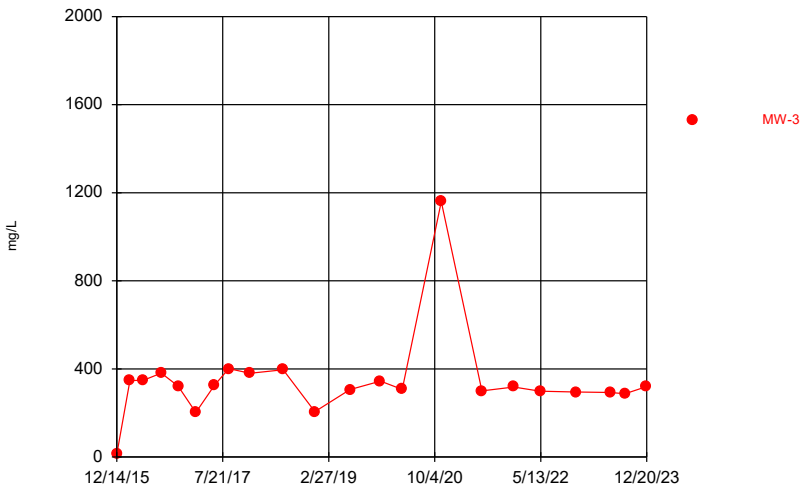
Time Series



Constituent: Chloride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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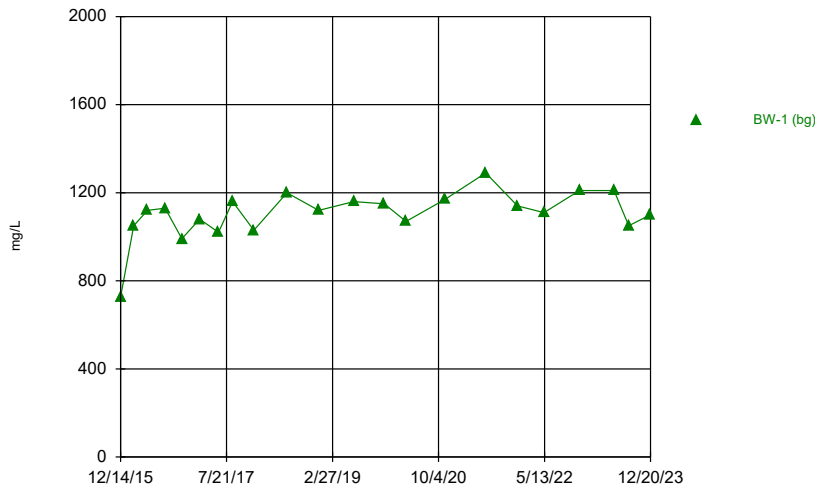
Time Series



Constituent: Chloride Analysis Run 1/18/2024 4:37 PM

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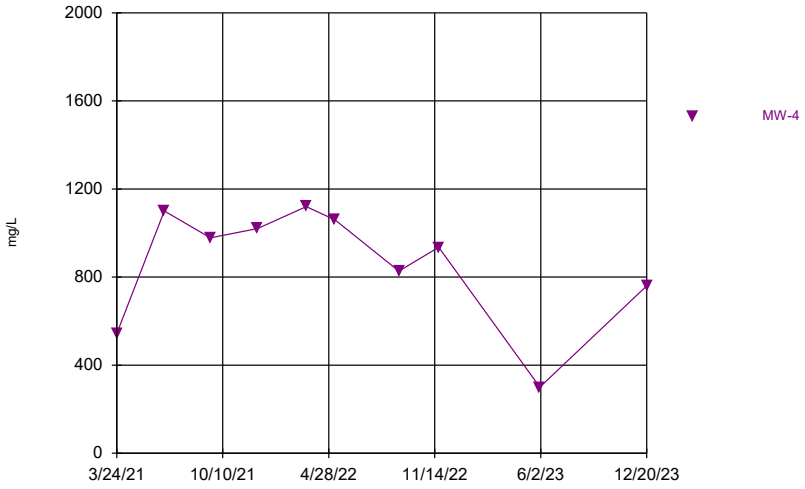
Time Series



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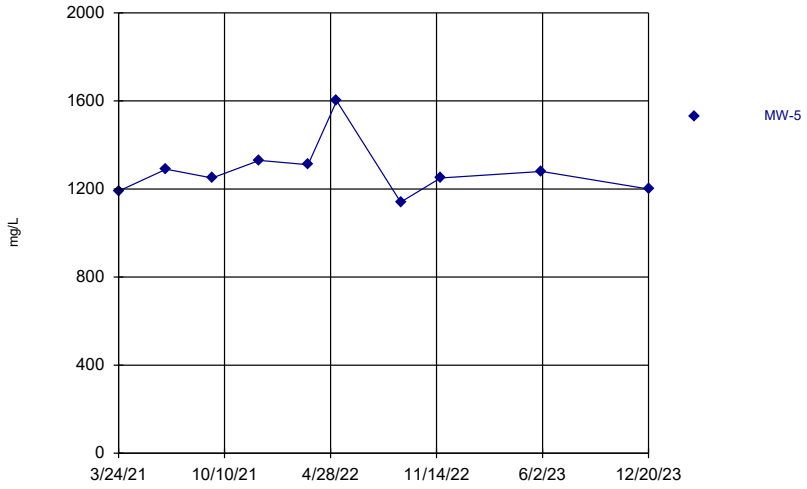
Time Series



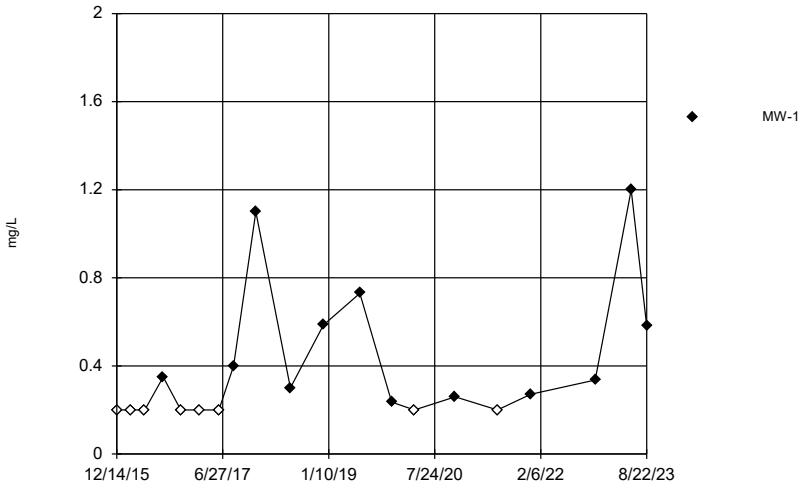
Constituent: Chloride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Hollow symbols indicate censored values.

Time Series



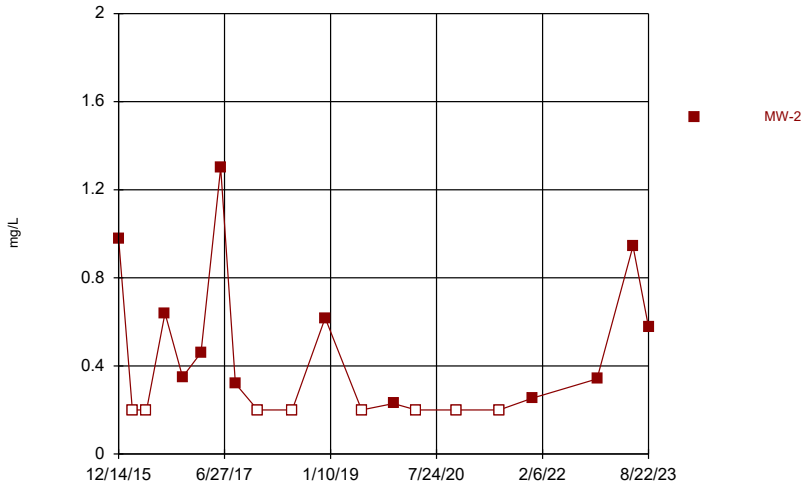
Constituent: Fluoride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
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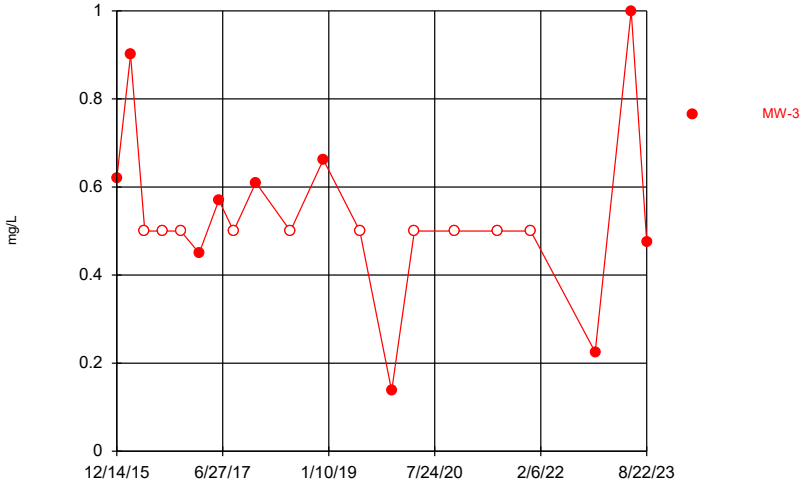

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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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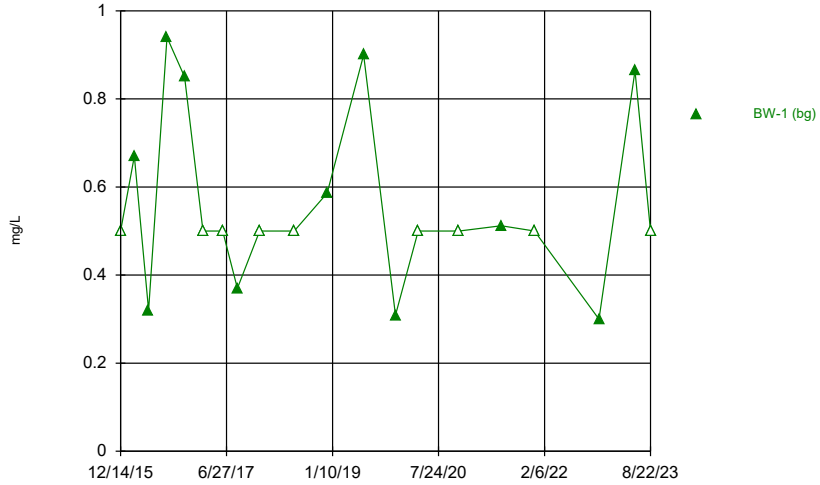
Hollow symbols indicate censored values.

Time Series



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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA
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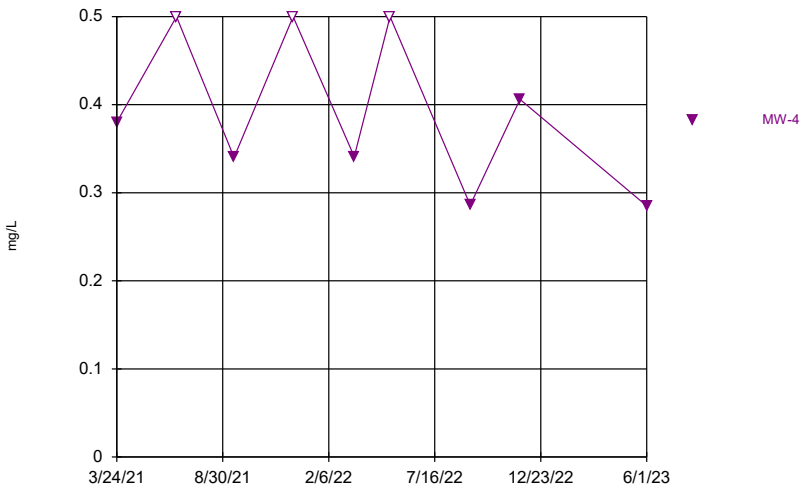

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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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Hollow symbols indicate censored values.

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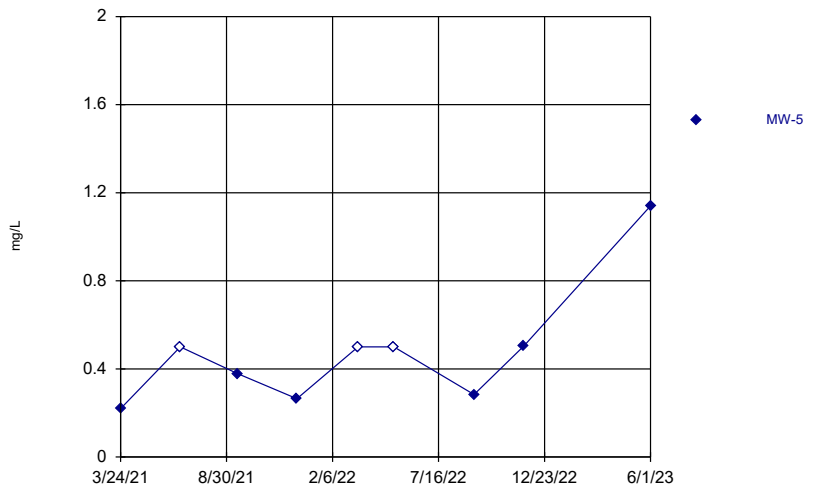

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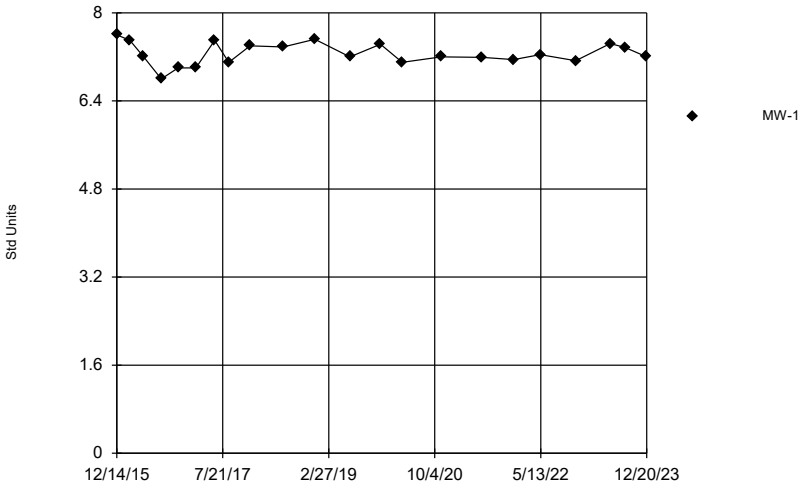
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Time Series



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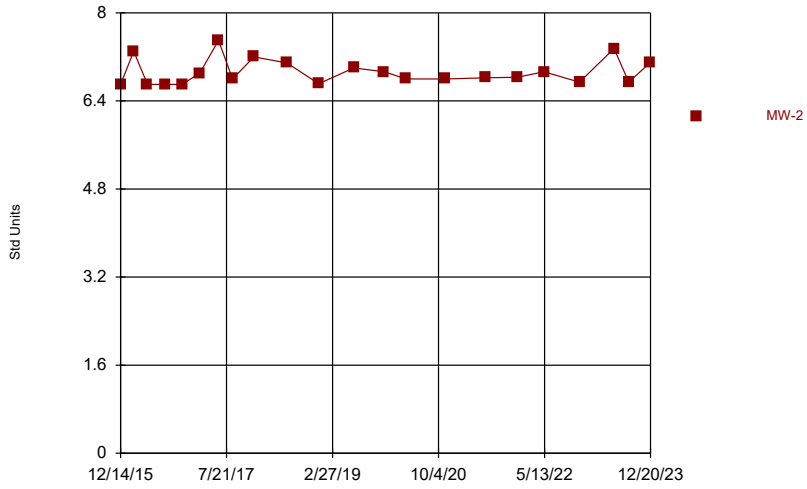
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

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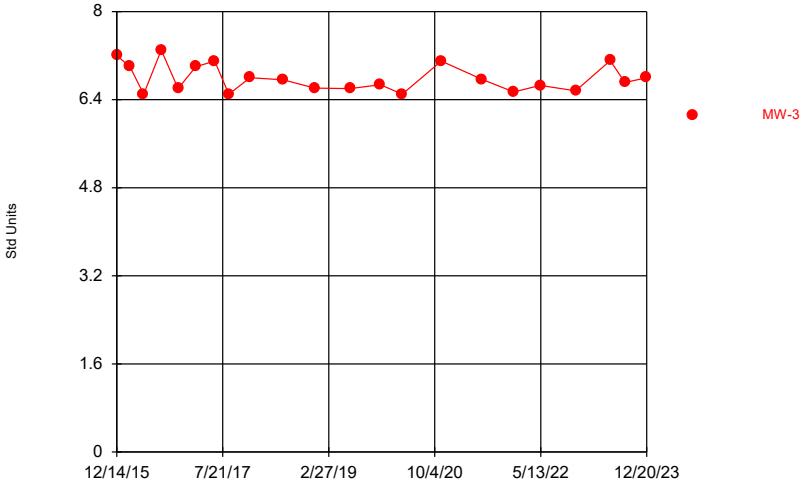
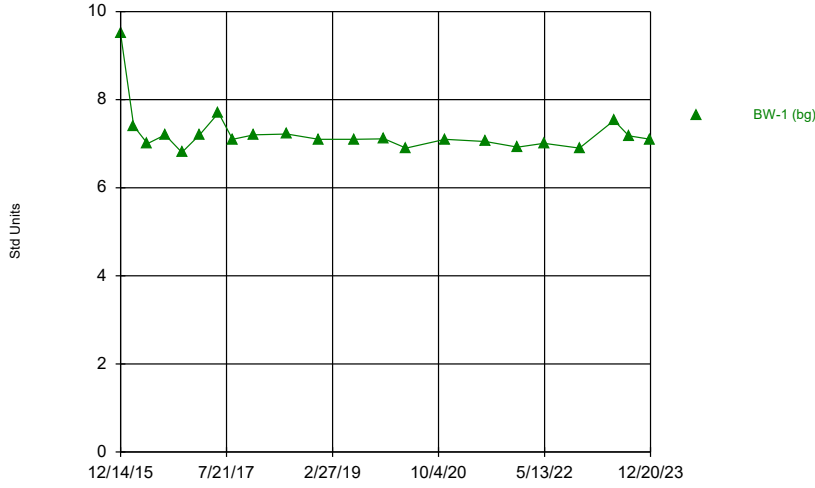


Constituent: pH Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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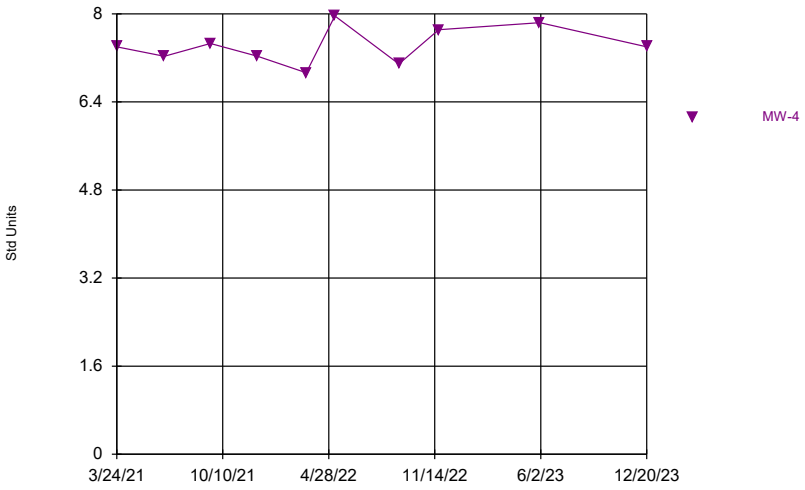

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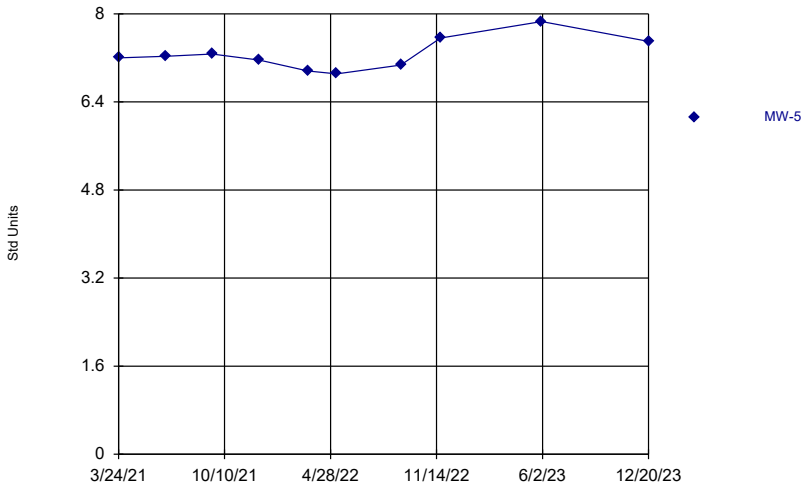

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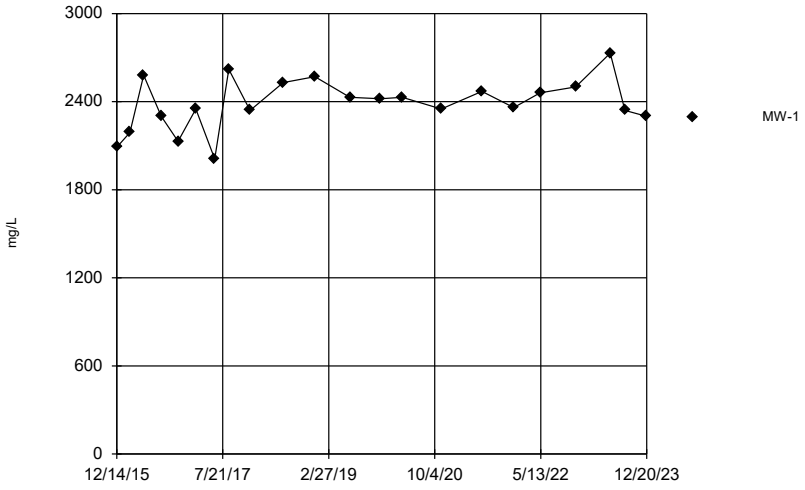
Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

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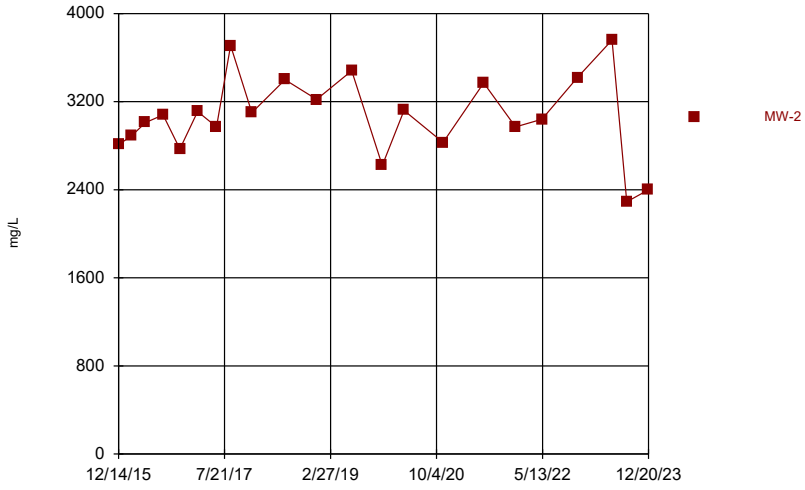

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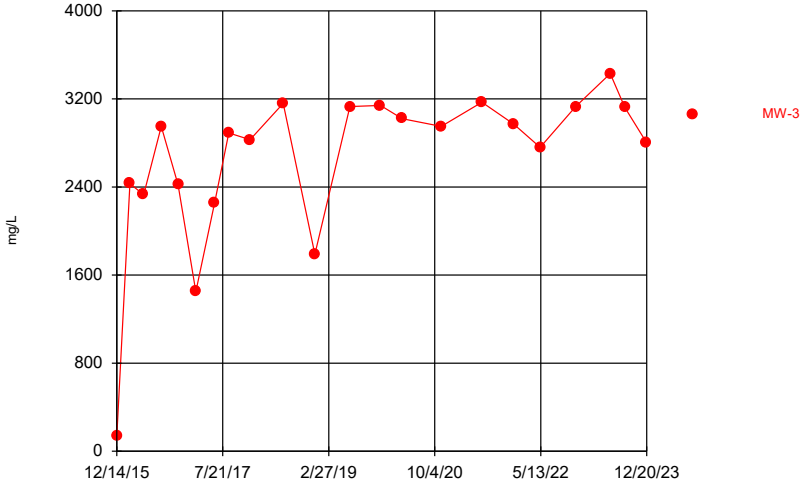

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Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

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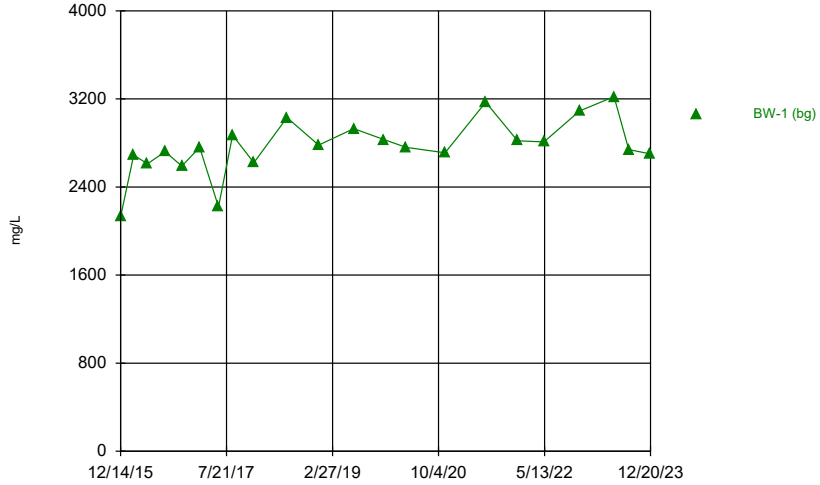
Time Series



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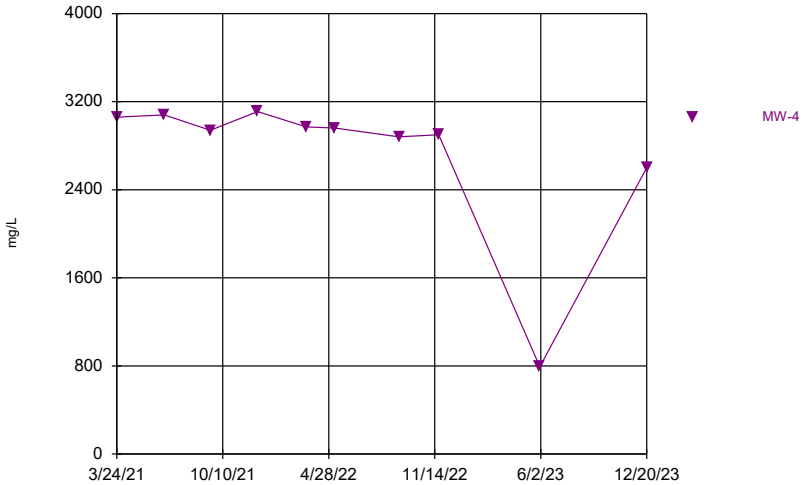

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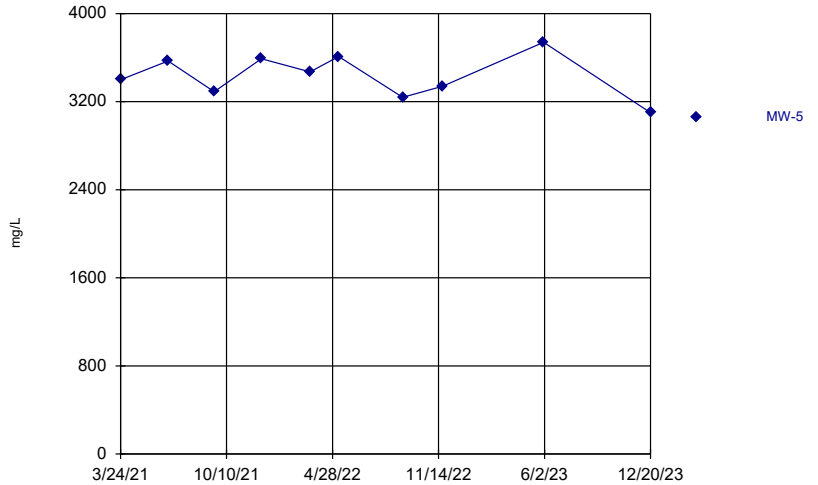

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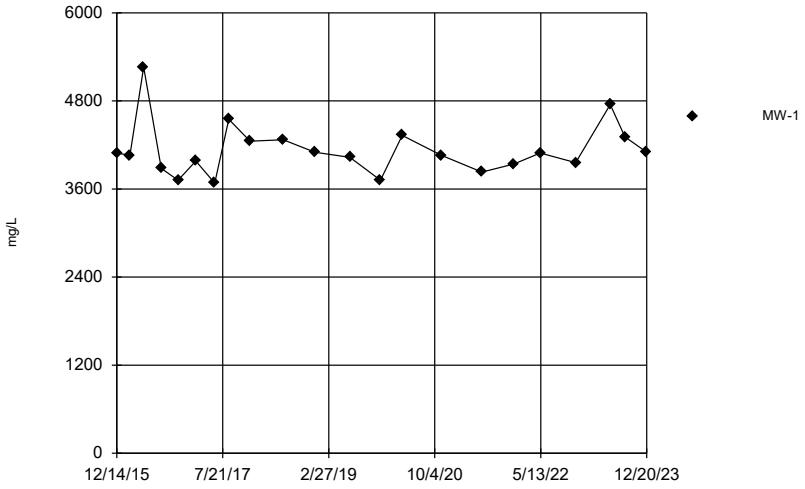

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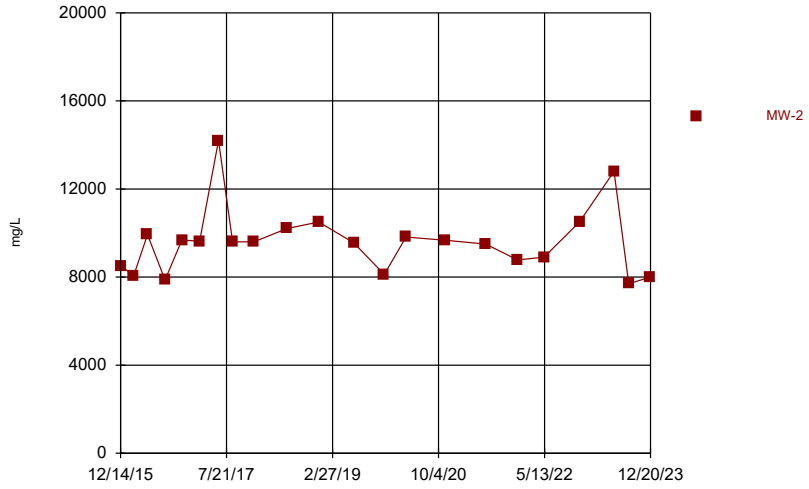
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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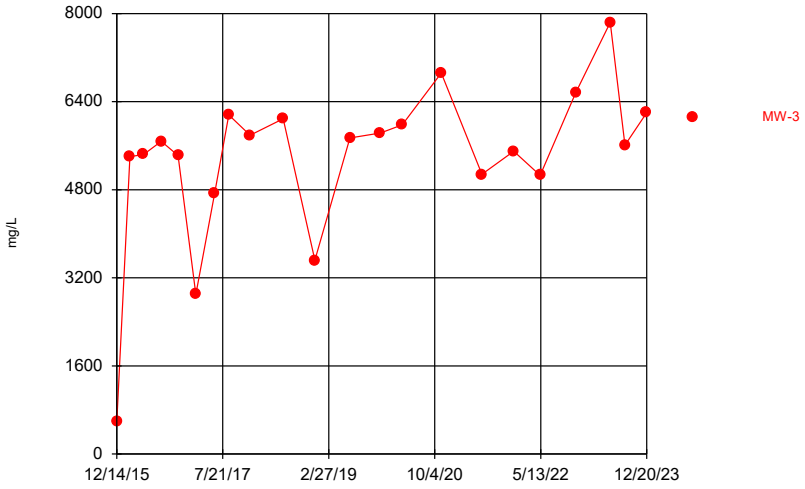
Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Sanitas™ v.9.6.37 Sanitas software licensed to SCS Engineers. EPA

Time Series



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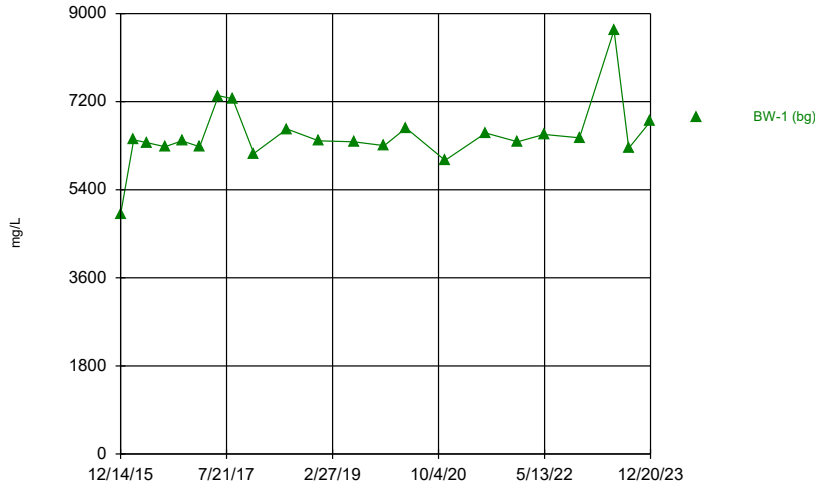
Time Series



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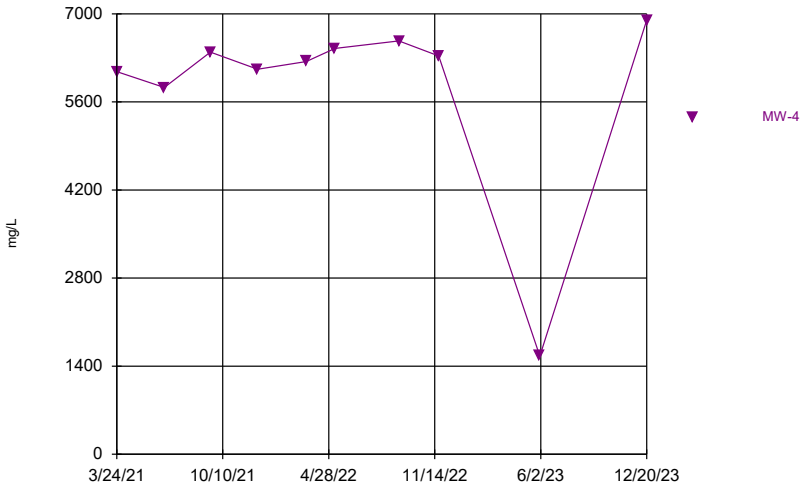

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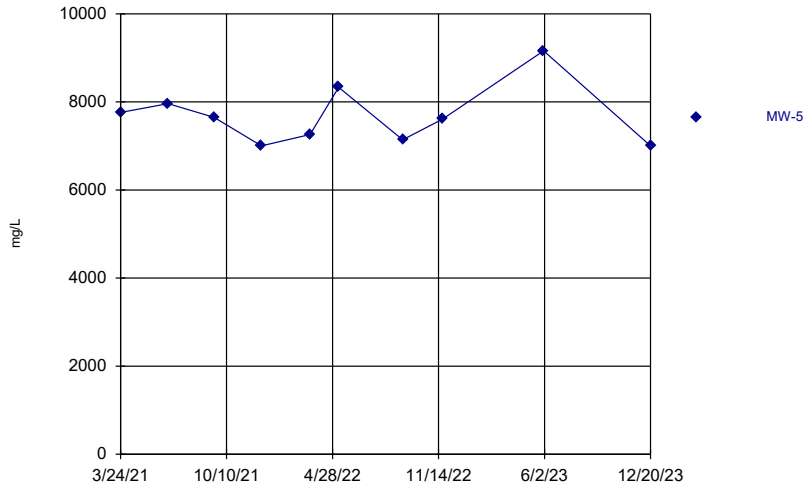
Time Series



Constituent: Total Dissolved Solids Analysis Run 1/18/2024 4:37 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Appendix E
December 2023 Alternate Source Demonstration

January 24, 2024
SCS Project 16223032.00

Mr. Luke Johnson
Compliance Manager
NAES Corporation
2161 Rattlesnake Road
Riesel, Texas 76682

Subject: Alternate Source Demonstration for Calcium in MW-1
2023 Annual Groundwater Monitoring Report
Sandy Creek Energy Station
Coal Combustion Residual Waste Management Facility
TCEQ Registration No. CCR107
McLennan County, Texas

Dear Mr. Johnson:

On behalf of the Sandy Creek Energy Station (SCES), SCS Engineers (SCS) is submitting this Alternate Source Demonstration (ASD) in accordance with the site Groundwater Sampling and Analysis Plan (GWSAP) prepared by SCS Engineers, dated January 13, 2022, and Coal Combustion Residual Rule Title 40 Code of Federal Regulations (CFR) §257.94(e)(2) for a calcium detection in groundwater monitoring well MW-1. During the December 2023 groundwater monitoring event, calcium was detected in MW-1 at 660 mg/L, above the statistical limit of 603.5 mg/L. This ASD was conducted to investigate the likely source of the calcium detection. In accordance with 40 CFR §257.94(e)(2) and 30 TAC §352.941, this ASD is being submitted within 90 days of detecting an unconfirmed statistically significant increase (SSI) above background values.

December 2023 Calcium Detection and Statistical Analysis

Calcium was detected in MW-1 at a concentration of 660 mg/L, which is above its statistical limit of 603.5 mg/L during the December 2023 annual groundwater monitoring event. Since the December 2023 laboratory result for calcium in MW-1 exceeded its respective intrawell limit, additional statistical evaluation was performed in accordance with 40 CFR §257.94(e)(2).

The December reported concentration for calcium in MW-1 is less than that of upgradient well BW-1. SCS used this as a basis for an alternate source demonstration (ASD) by comparing data from upgradient well BW-1 to the downgradient well MW-1. This analysis consisted of calculating an interwell parametric prediction limit. As a result of this interwell analysis comparing upgradient to downgradient data, the statistical limit for calcium in MW-1 was raised to the value reported in Table 1. When performing an interwell analysis test, if the detection result falls below the interwell statistical limit, it can be inferred that the detection likely resulted from natural variations in groundwater quality at the site. It is SCS's opinion that the constituent, calcium, appears to be coming from an upgradient source and not from the landfill, resulting in a natural variation in groundwater quality and is representative of background data.

Table 1 – December 2023 Unconfirmed SSIs (mg/L)

MW- ID	Constituent	Lab Result	Intrawell Limit	Interwell Limit
MW-1	Calcium	660	603.5	672

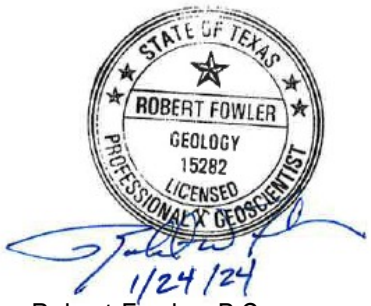
Conclusion

As a result of this analysis comparing upgradient to downgradient data, the interwell statistical limit is higher than the December 2023 laboratory result for calcium in MW-1. Attached are the interwell statistical graph and data, demonstrating the comparison between the upgradient and downgradient wells. Since the detection of calcium falls below the interwell statistical limit, this is evidence that the detection is from an upgradient source and not from thelandfill, resulting in a natural variation in groundwater quality and is representative of background data within the boundary of the facility. SCS proposes that no further action is necessary.

Closing

SCS recommends that the groundwater monitoring wells for the landfill (BW-1, MW-1, MW-2, MW-3, MW-4, MW-5) remain in detection monitoring, in accordance with 40 CFR §257.94, as this ASD satisfies the 90-day demonstration period requirement outlined in 40 CFR §257.94(e)(2). Please contact Robert Fowler at (501) 503-4779 if you have comments or require additional information.

Sincerely,



Asher Boudreaux, P.G.
Project Professional
SCS ENGINEERS
TBPE Registration No. F-3407

Brett DeVries, Ph.D., P.E.
Senior Project Manager
SCS ENGINEERS

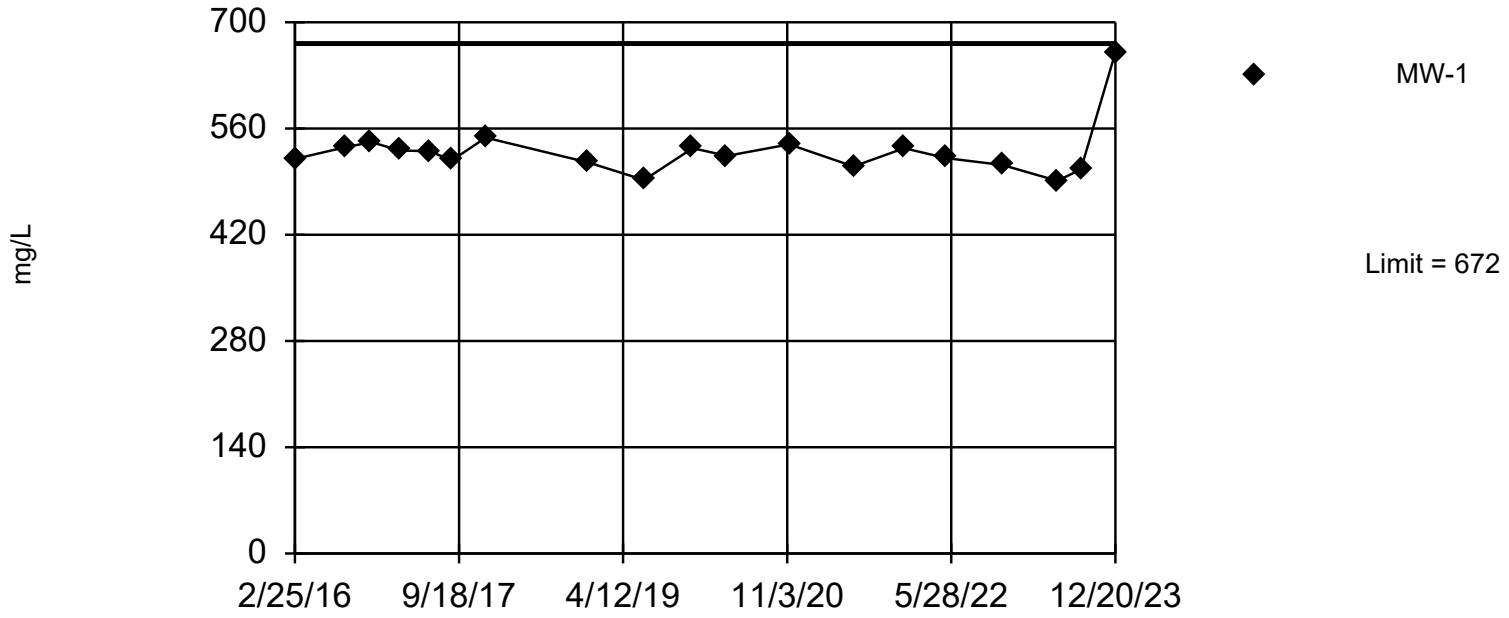
Robert Fowler, P.G.
Project Manager
SCS ENGINEERS

Attachments: Interwell Statistical Graph and Data

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=587, Std. Dev.=48.14, n=21. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9259, critical = 0.908. Report alpha = 0.05. Most recent point compared to limit.

Constituent: Calcium Analysis Run 1/18/2024 4:43 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/18/2024 4:44 PM

Sandy Creek Energy Station Client: Sandy Creek Data: Sandy Creek GWdata

	MW-1	BW-1 (bg)
2/25/2016	520	586
5/11/2016		566
8/16/2016	535	566
11/17/2016	542	548
2/23/2017	531	532
6/7/2017	530	539
8/24/2017	518	531
12/20/2017	548	658
6/21/2018		610
12/13/2018	515	637
6/24/2019	492	564
12/10/2019	534	591
4/8/2020	524	545
11/10/2020	539	612
6/22/2021	510	607
12/15/2021	534	616
5/10/2022	521	623
11/22/2022	512	619
6/1/2023	491	528
8/22/2023	506	539
12/20/2023	660	710