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Stephen Lee, Director
Louisiana Department of Energy and Natural Resources
Office of Conservation - Injection & Mining Division
617 North Third Street, LaSalle Building
Baton Rouge, Louisiana 70802-5431

DATE
5 November 2024

SUBJECT
9th Analytical Data Submittal
Sulphur Mines Dome
Calcasieu Parish, Louisiana

REFERENCE
0756112

Dear Mr. Lee:

On behalf of Westlake US 2, LLC (Westlake), Environmental Resources Management Southwest, Inc. (ERM) is pleased to provide the Louisiana Department of Energy Natural Resources (LDENR) Injection & Mining Division with final laboratory analytical reports for groundwater, surface water, gas, and oil samples collected at the Sulphur Mines Dome in Calcasieu Parish.

Included in this report are data received in June – September 2024, which includes the results of the 2nd and 3rd Quarter bubble site sampling events.

Enclosed are the following:

- Table 1 – Groundwater Data Summary
- Table 2 – Surface Water Data Summary
- Table 3 – Central Lake Water Column Profile
- Table 4 – Gas Data Summary
- Table 5 – Oil Data Summary
- Table 6 – Survey Results and Groundwater Elevations
- Figure 1-2 – Sample Location Maps
- Figures 3-4 – Groundwater Chloride Trend Graphs
- Figure 5 – Groundwater Piper Diagram
- Figure 6-9 – Sulfate vs Bicarbonate/Carbonate Trend Graphs
- Figure 10 – Central Lake TDS Trend
- Figure 11 – Methane Isotopes
- Figure 12 – Gas Composition Comparison
- Figure 13-27 – Potentiometric Surface Maps
- Attachment 1 – Laboratory Reports
- Attachment 2 – Field Notes

Only final laboratory reports received since the previous data submittal are provided in Attachment 1. Supplemental submittals will be made as additional final laboratory analytical data are received.

1. WATER SAMPLING RESULTS

From June through September 2024, additional samples of groundwater and surface water were collected throughout the site. The sampling locations are shown on Figures 1-2. The water samples were analyzed by ALS Global laboratory in Houston, Texas, a Louisiana Environmental Laboratory Accreditation Program (LELAP)-accredited laboratory. Dissolved gas samples were submitted to and analyzed by Isotech, a Stratum Reservoir Company in Champaign, Illinois. All samples were hand delivered or shipped under proper Chain-of-Custody in laboratory-supplied containers with appropriate preservative and handling requirements. The field notes recorded during sampling are included as Attachment 2.

1.1 WATER WELL SAMPLING AND RESULTS

Monthly groundwater samples continue to be collected from the industrial water wells operated by Westlake, as well as the Cottages Well (019-17636Z) located west of Cavern 7 (see Figure 1). An attempt is made to sample all water wells during the sampling events. However, periodically the water wells are not in operation and not able to be sampled during the sampling events due to operating requirements, maintenance, or other mechanical or electrical issues.

At each industrial well, water was allowed to flow for several minutes prior to sampling. Field parameters, i.e., pH, specific conductivity (SC), oxidation-reduction potential (ORP), and temperature, were recorded with a hand-held meter at the time of sampling. The groundwater analytical data to date are summarized in Table 1.

Reported constituent concentrations have generally been consistent since sampling began in January 2023. Groundwater chloride trend graphs for the Chicot aquifer are provided as Figures 3-4. Concentrations reported in samples from the industrial water wells have consistently been below their respective RECAP screening standards (GWSS) or EPA Secondary Maximum Contaminant Limits (SMCL), except for naturally-occurring iron and manganese. Except for the few minor TPH fraction detections, the volatile organic compounds have been reported as not detected in the water wells since January 2023.

A Piper diagram depicting the water quality of multiple samples is provided as Figure 5. The Piper diagram illustrates the differences between the Chicot aquifer water and the produced water and brine, as well as the overall consistency of the groundwater quality within the Chicot aquifer outside of the salt dome. The industrial water wells (“500-foot” sand) and the Cottages well (“700-foot” sand) have consistently plotted in tight clusters, with the “500-foot” and “700-foot” sands having slightly different water quality signatures, both distinctly different from the produced water or brine.

1.2 MONITORING WELL SAMPLING AND RESULTS

The monitoring wells have been sampled on a monthly schedule beginning in March 2024. The pump intake is set in the middle of the screened interval. During pumping, water quality parameters (pH, specific conductance, oxidation-reduction potential, dissolved oxygen, temperature, and turbidity) were monitored along with the drawdown in the well to ensure a representative sample was collected from the aquifer. Once the water quality parameters stabilize, a sample is collected. The analytical data from the monitoring well samples are provided on Table 1.

Constituents are generally reported below their respective GWSS or SMCL standards with elevated naturally-occurring iron and manganese, consistent with the industrial water wells. Trend graphs of the chloride concentrations within the monitoring wells are provided as Figures 3-4. Elevated chloride concentrations reported in MW-3-500 and MW-3-700 are shown on Figure 4.

Arsenic continues to be reported slightly above the GWSS in MW-1-200 with concentration stable. Arsenic at a similar concentration was also reported in residential water 019-13434Z, screened in the "200-foot" sand. Arsenic is known to be present in alluvial aquifers in South Louisiana, especially where finer-grained sediments are present. These arsenic concentrations are believed to be representative of naturally-occurring conditions.

At the MW-3 well cluster, chloride and TDS remain above their SMCLs in MW-3-500 and MW-3-700 at concentrations consistent with previous samples. Barium is reported above the GWSS in MW-3-700 at stable concentrations. At MW-3-500, low levels of benzene, toluene, and light hydrocarbons (Aliphatics >C6-C8) had been detected in almost every sampling event but remain at concentrations below the GWSS.

1.2.1 HYDROGEN SULFIDE

Periodically and sporadically, dissolved hydrogen sulfide (H_2S) has been reported in samples from the monitoring wells. Commonly, sulfate-reducing bacteria within the groundwater or the well can generate hydrogen sulfide in wells through reduction of sulfate in anaerobic conditions.

Because methane is present in the water, anaerobic oxidation of the methane can occur to free up hydrogen that can be utilized by sulfate-reducing bacteria resulting in bicarbonate and sulfide ($CH_4 + SO_4^{2-} \rightarrow HCO_3^- + HS^- + H_2O$) [Cui, et al., 2014]. Blackening of water can indicate that sulfate-reducing bacteria are active as insoluble sulfide minerals (e.g., pyrite) precipitate, which are typically black or brown (Schulze and Mooney, 1994).

The presence of H_2S in water is also dependent upon the pH. Based on an Eh-pH diagram (Takeno, 2005), H_2S is the most thermodynamically stable species at pH of 7 or less. In higher pH water (>7) sulfide (HS^-) becomes the most stable species.

Field observations have indicated the presence of black solids suspended in the water within several of the monitoring wells. The solids were noted at the MW-3 cluster when the wells were first developed following installation and have continued to be present, suggesting that sulfide minerals naturally occur within the Chicot sands at the salt dome, which historically was extensively mined for sulfur. The monitoring wells also exhibit elevated pH which would limit the residence of H_2S that may form.

A review of the analytical data shows a reduction in sulfate over time, with a corresponding increase in bicarbonate, in a few of the monitoring wells. These data suggest that a hydrocarbon source, likely methane, is being oxidized and sulfate is being reduced to form bicarbonate. The sulfate vs. bicarbonate/carbonate trends for the four wells with the highest sulfate (MW-2-200, MW-2-700, MW-3-200, and MW-3-500) are shown on Figures 6-9. In these wells, sulfate is decreasing over time and bicarbonate/carbonate appears to be increasing over time. This is likely the result of anaerobic methane oxidation and sulfate reduction. Also, the pH regime appears to have changed in MW-2-200 and MW-2-500 as the alkalinity has shifted from primarily bicarbonate to carbonate, with higher pH waters favoring the carbonate ion. Based on the sulfate and bicarbonate/carbonate data, it appears the sulfate reduction is occurring in at least a few of the monitoring wells.

The lack of consistent H_2S and sulfide detections would suggest that sulfate reduction occurring in the system is in equilibrium with sulfide minerals precipitation. The monitoring wells generally have much lower levels of iron and zinc compared to the industrial water wells which could be in part due to the presence of sulfide as insoluble minerals form.

1.3 BRINE SAMPLING

Two additional samples of brine were collected in September 2024. Brine from both the Starks dome (Starks Brine) as well as brine entering Cavern 7 at the time of sampling (Sulphur Prod) were collected. The brine used for injection into Cavern 7 was from brine generated from the Sulphur dome. The results are shown on Table 1. Samples were also submitted for stable isotopic composition of the water with results pending.

1.4 SURFACE WATER SAMPLING RESULTS

In June and September 2024, Surface water samples were collected from the Central Lake, Salt Lake (LDNR 26), Brine Well 7B vault (PPG 7B BS), and the water body adjacent to Brine Well 4 (LDNR 9, and LDNR 19). The sampling locations are shown on Figure 2. Surface water sample data is summarized in Table 2.

Chloride concentrations have decreased in the Central Lake since December 2023 and appear to have stabilized. The site received consistent rain during the 2nd Quarter of 2024 which has increased the water level within the Central Lake. Chloride has been elevated when the water level has been low. The chloride fluctuation appears to be seasonal and sensitive to the depth of the water column. A drier period during the 3rd

Quarter of 2024 has reduced the water level, and chloride concentrations were slightly higher in September than in June. The concentrations will continue to be monitored over time. The Central Lake is generally homogeneous, with minor variations in water quality between sampling locations.

1.4.1 CENTRAL LAKE WATER COLUMN PROFILE

Field readings from the Central Lake water column are continuing on a weekly basis. The profile data collected from the monitoring station are provided in Table 3. The specific conductance began decreasing in late 2023 to early 2024 as water levels increased due to consistent rain in the spring and summer. A trend of the field measured TDS compared with water depth is shown on Figure 10. Laboratory reported TDS confirms the general trend observed in the field data. The surface water will continue to be monitored to evaluate changes over time, which appear to be reflective seasonal water level changes.

2. GAS SAMPLING RESULTS

The majority of bubbles sites were successfully sampled using a water-displacement technique. At the few bubble sites that do not exhibit visible bubbling, dissolved gas samples are collected. Methane levels are generally low at these locations.

Dissolved gas samples continue to be collected from the water wells and monitoring wells on a monthly basis. The gas data are summarized in Table 4 and sampling locations are shown on Figures 1 and 2.

Several identified bubbles sites (LDNR-10, 27, 28, and PPG-07A) are generally dry, and are difficult to locate. Gas samples were collected at these locations using a methane detector to identify the likely bubble location. The gas samples were collected via a hand pump and funnel surrounded with modeling clay in order to limit atmospheric contamination.

The methane isotopic data have been plotted on Figure 11 for comparison with other gas samples collected. In general, the methane isotopic data have been consistent over time with the gas from the caverns, oil wells, and bubble sites plot as thermogenic gas, originating from deep hydrocarbon sources, while the gas within the Chicot aquifer has a biogenic or mixed gas signature.

The composition of the gas varies at the dome. Pie charts of the minor hydrocarbons (ethane – hexane+) are provided on Figure 12 for comparison. The cavern gas generally has similar percentages of the heavier gases with a relatively high percentage of n-Pentane that is not seen in the other gas or dissolved gas samples, including the brine. Also, n-Butane is relatively high in the cavern gas samples, which is also seen in the PPG-7B bubble site and noticeably higher in MW-1-500, MW-1-700, NW-2-500, and MW-2-700. A few of the bubble sites have ethene present at a higher percentage than other gas samples. Based on this comparison, the gas has varying

compositions throughout the dome and there does not appear to be a common source of gas at the bubble sites.

2.1 HYDROGEN SULFIDE

During the September sampling event the bubble sites were evaluated for H_2S. Samples were submitted to SPL for analysis. The H_2S data are summarized on Table 4. H_2S at the majority of the bubble sites was not detected or was reported at very low concentrations. However, a few bubble sites exhibited elevated levels of H_2S, including LDNR-03, 04, 17, 19, and 24. During the September sampling event, the ambient air was monitored at the bubble sites during sample and H_2S was not detected in the breathing space.

3. OIL SAMPLING RESULTS

An oil sample was collected from Cavern 4 in August 2024, and a sample was collected from Cavern 7 in September 2024. The oil sample results are summarized on Table 5. Additional volume was sent for environmental forensics evaluation and those results will be provided by others. The oil data for Cavern 7B has remained consistent over time and is lighter (less dense) than the oil produced on the flanks of the dome.

4. POTENTIOMETRIC SURFACE

Groundwater levels are recorded during each sampling event prior to sampling. Before the water level is recorded, each well is opened and allowed to equilibrate with atmospheric pressure. The water level measurements and survey data are provided on Table 6.

Potentiometric surface contour maps for the three Chicot sand intervals from May through September are provided as Figures 13-27. Because of the elevated TDS in MW-3-500 and MW-3-700 wells, the groundwater elevations have been corrected for density to equivalent freshwater head (EFWH) [Post, et al., 2007]. The groundwater in the “200-foot” sand appears to be flowing toward the southeast with high water levels reported in the MW-1-200 well. In both the “500-foot” sand, and the “700-foot” sand the groundwater flow direction appears to be toward the southwest, toward the industrial water wells. This flow regime for all three sand zones has been consistent since the monitoring wells were installed. Groundwater levels will continue to be recorded on a monthly basis.

Sampling is currently scheduled to continue on a monthly basis. LDENR will be notified at least five business days prior to the start of sampling. Should you have any questions or need additional information, please contact us at scott.himes@erm.com and david.upthegrove@erm.com.

Sincerely,

Environmental Resources Management Southwest, Inc.

Scott A. Himes, P.G.
Senior Hydrogeologist

David C. Upthegrove, P.G.
Partner

SAH/DCU/pcv

REFERENCES CITED

Cui, M., M. Anzhou, Q. Hongyan, Z. Xuliang, and G. Zhuang, 2014, *Anaerobic oxidation of methane: an "active" microbial process*, MicrobiologyOpen, Vol 4, Iss 1, pp. 1-11.

Post, V., H. Kooi, and C. Simmons, 2007, *Using hydraulic head measurements in variable-density ground water flow analyses*, Groundwater, Vol 45, Iss 6, pp. 664-671.

Schulze, E.-D., and H.A. Mooney, 1994, *Biodiversity and Ecosystem Function*, Springer-Verlag, New York, 525 pp.

Takeno, N., 2005, *Atlas of Eh-pH diagrams – Intercomparison of thermodynamic databases*, Geological Survey of Japan, Open File Report No. 419, 285 pp.

FIGURES

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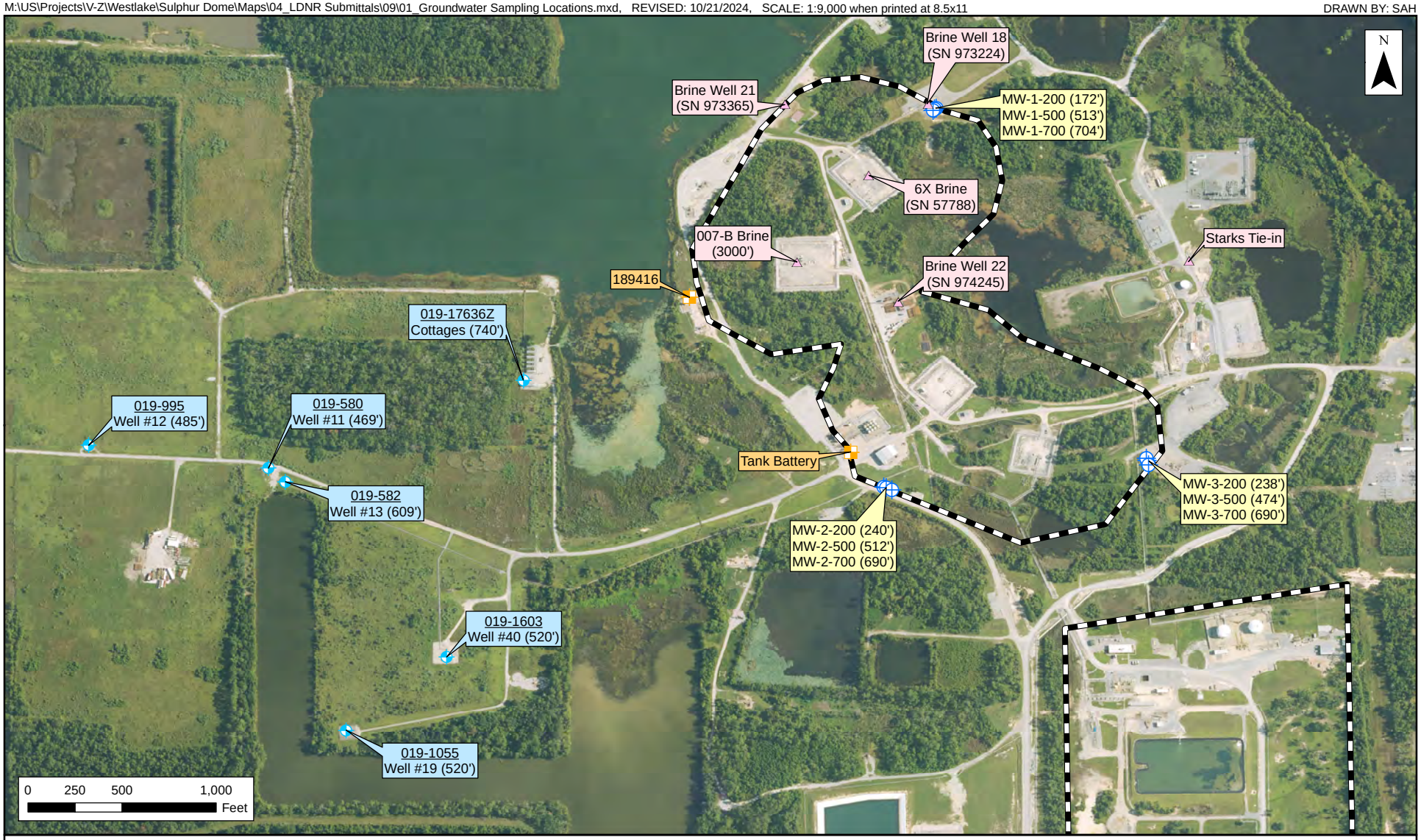

Legend

- Water Well Sample Location
- Monitoring Well Sample Location
- Produced Water Sample Location
- Brine Sample Location
- Westlake Property

Notes:
2023 NAIP imagery via USDA.

Figure 1
Groundwater Sampling Locations
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

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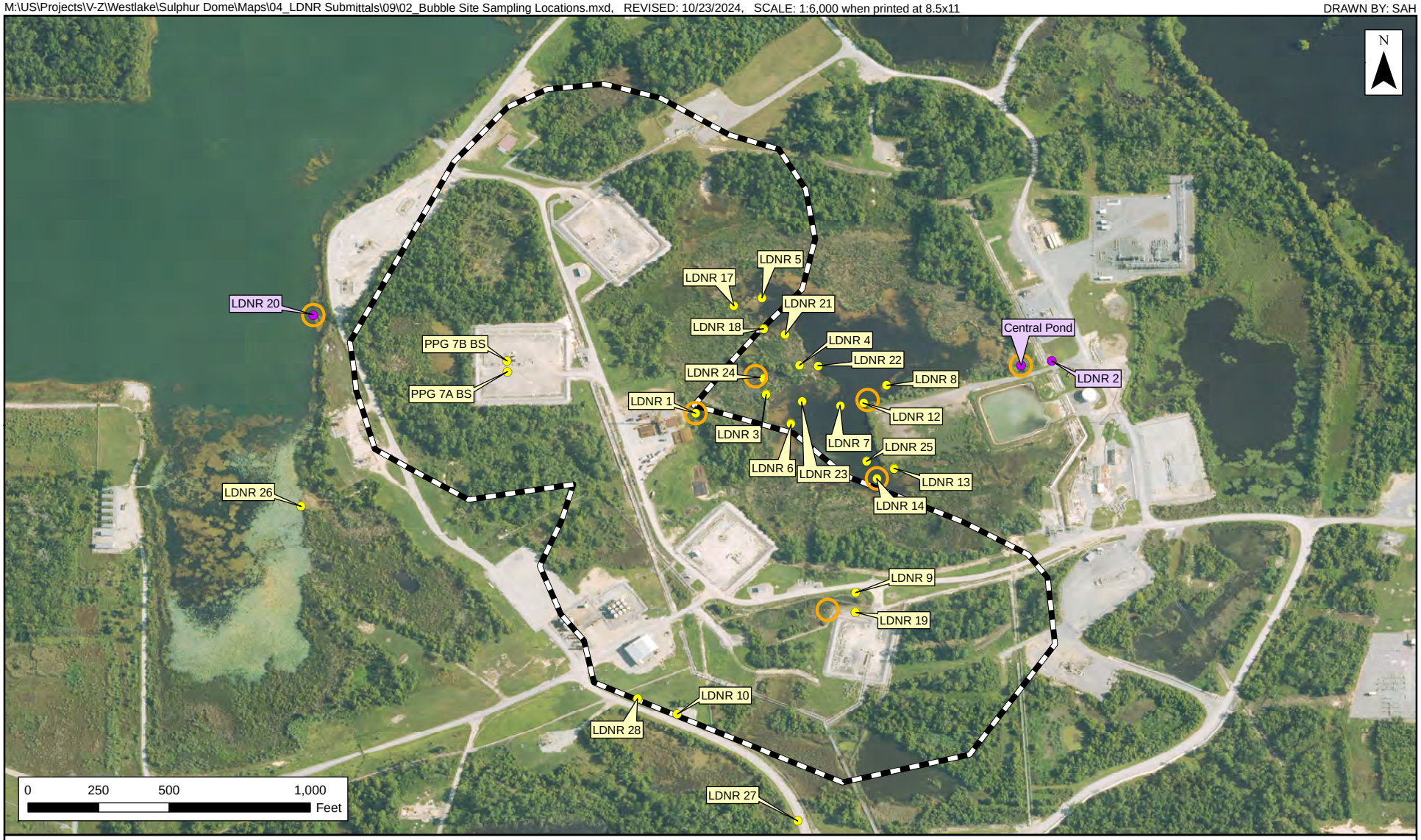
Source: Esri - ArcGIS Online; GCS North American 1983

M:\US\Projects\V-Z\Westlake\Sulphur Dome\Maps\04_LDNR Submittals\09\02_Bubble Site Sampling Locations.mxd, REVISED: 10/23/2024, SCALE: 1:6,000 when printed at 8.5x11 DRAWN BY: SAH



Legend

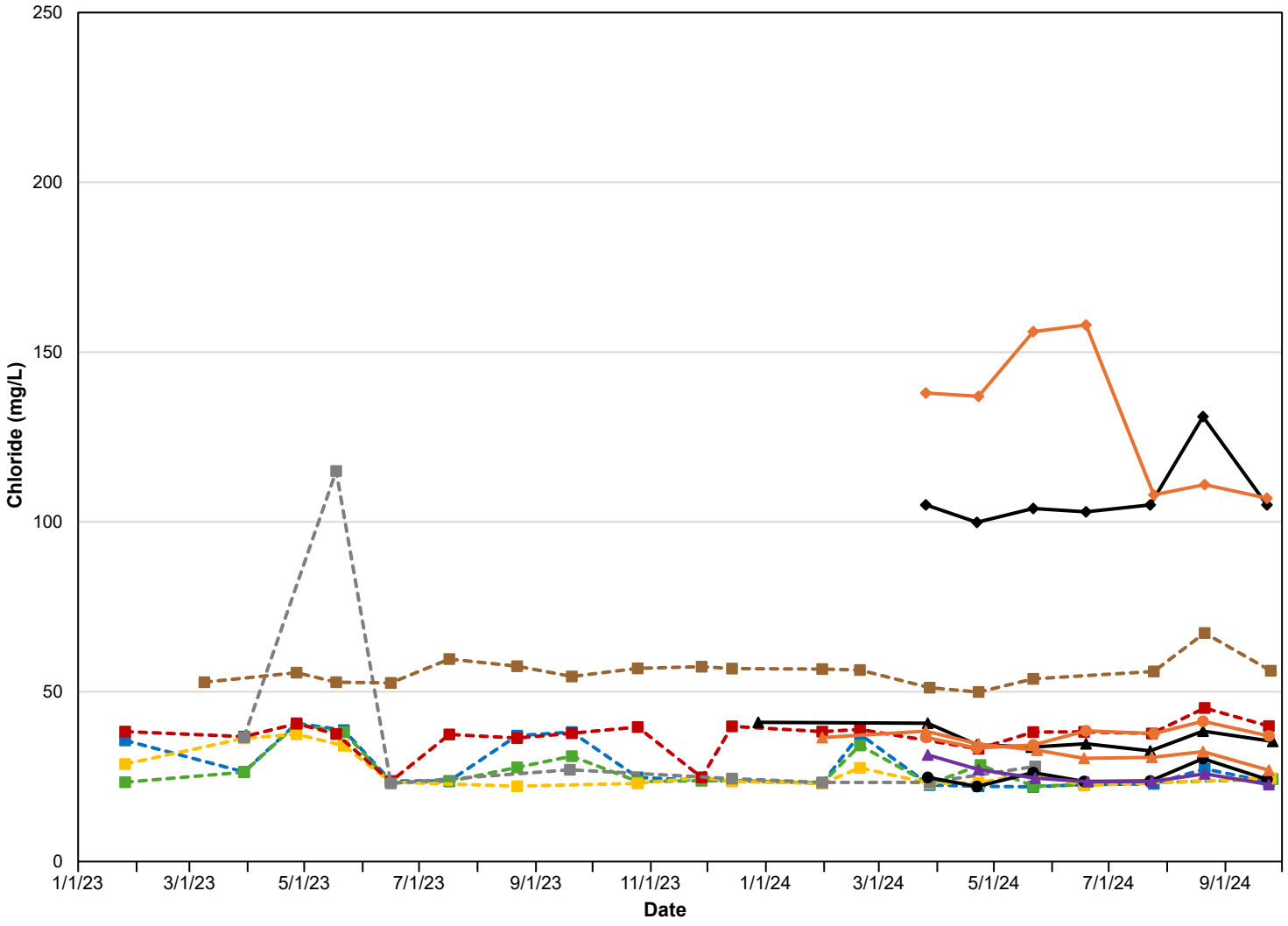
- Surface Water Sample Location (non-bubble site)
- Bubble Site Water/Gas Sample Location
- Sheen Sample Location
- Westlake Property

Notes:
2023 NAIP imagery via USDA.

Figure 2
Bubble Site Sampling Locations
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; GCS North American 1983

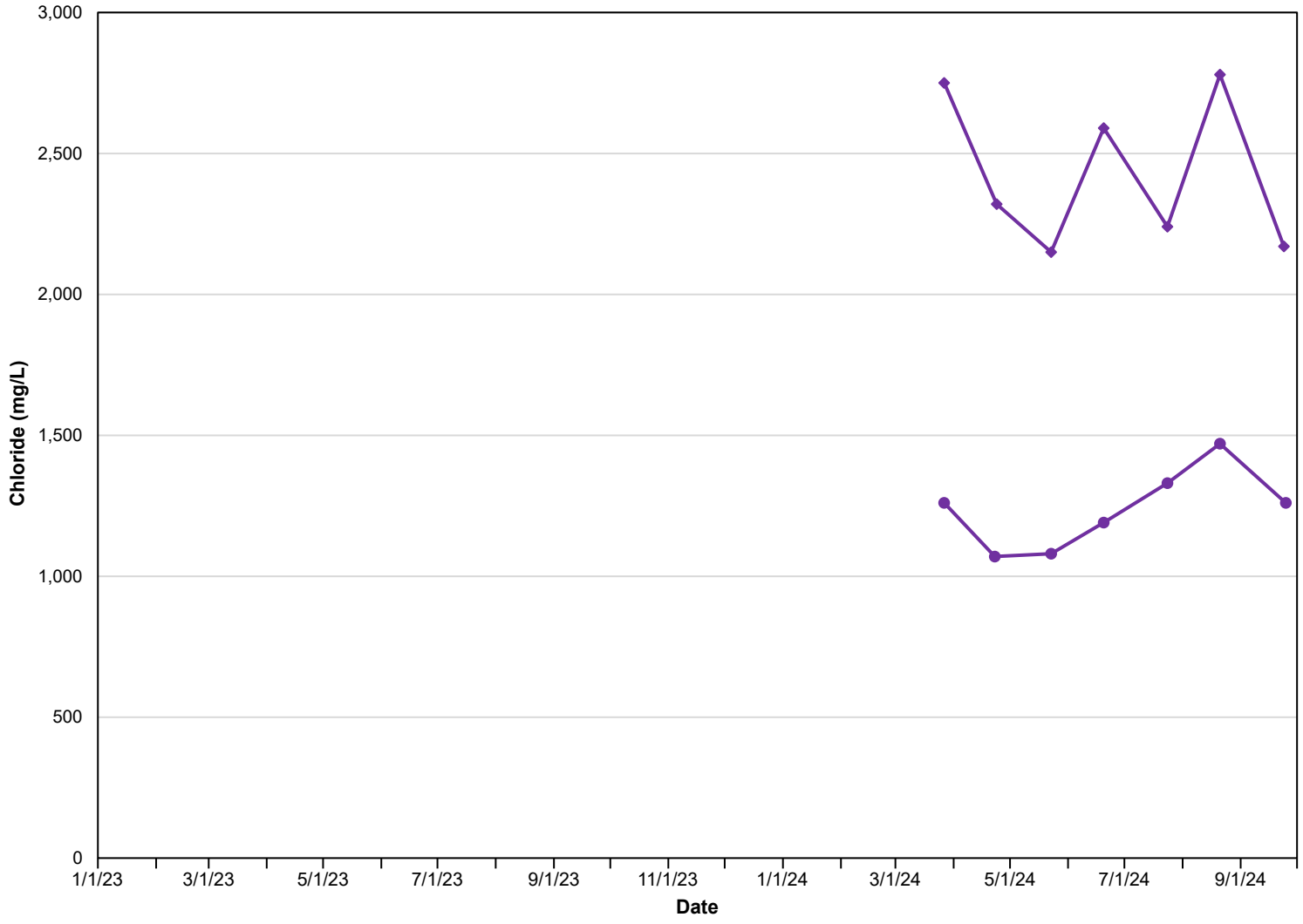


Legend

- 019-580
- 019-582
- 019-995
- 019-1055
- 019-1603
- 019-17636Z (Cottages)
- MW-1-200
- MW-1-500
- MW-1-700
- MW-2-200
- MW-2-500
- MW-2-700
- MW-3-200

Figure 3
Groundwater Chloride Trend
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM

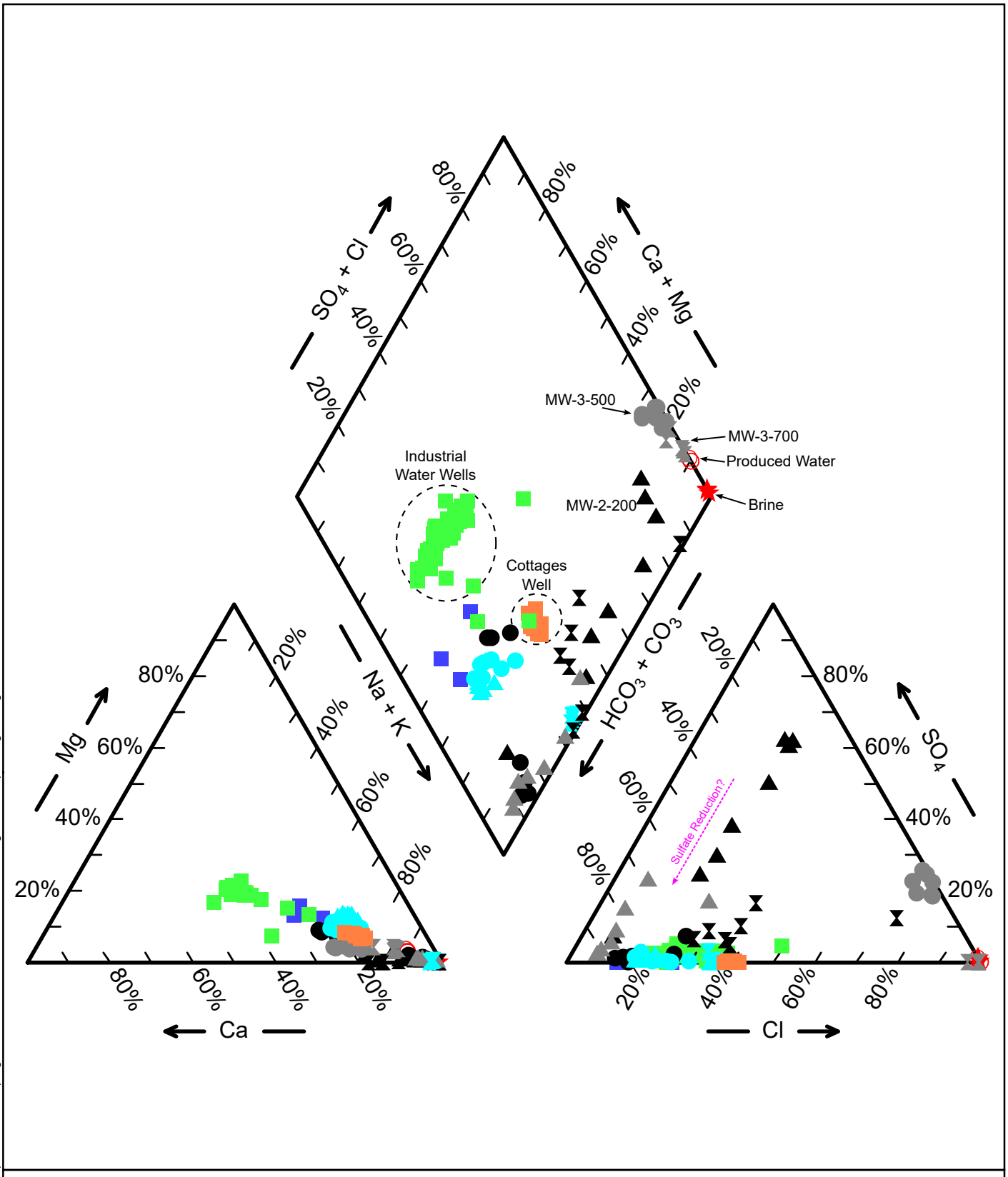


Legend

- MW-1-500
- MW-1-700

Figure 4
Groundwater Chloride Trend
MW-3-500 & MW-3-700
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM



Legend

- Industrial Water Well
- Residential Water Well
- Cottages Well
- Produced Water
- Brine
- MW-1-200
- MW-1-500
- MW-1-700
- MW-2-200
- MW-2-500
- MW-2-700
- MW-3-200
- MW-3-500
- MW-3-700

Figure 5
Groundwater Piper Diagram
Sulphur Dome
Westlake US 2, LLC
Calcacieu Parish, Louisiana

ERM

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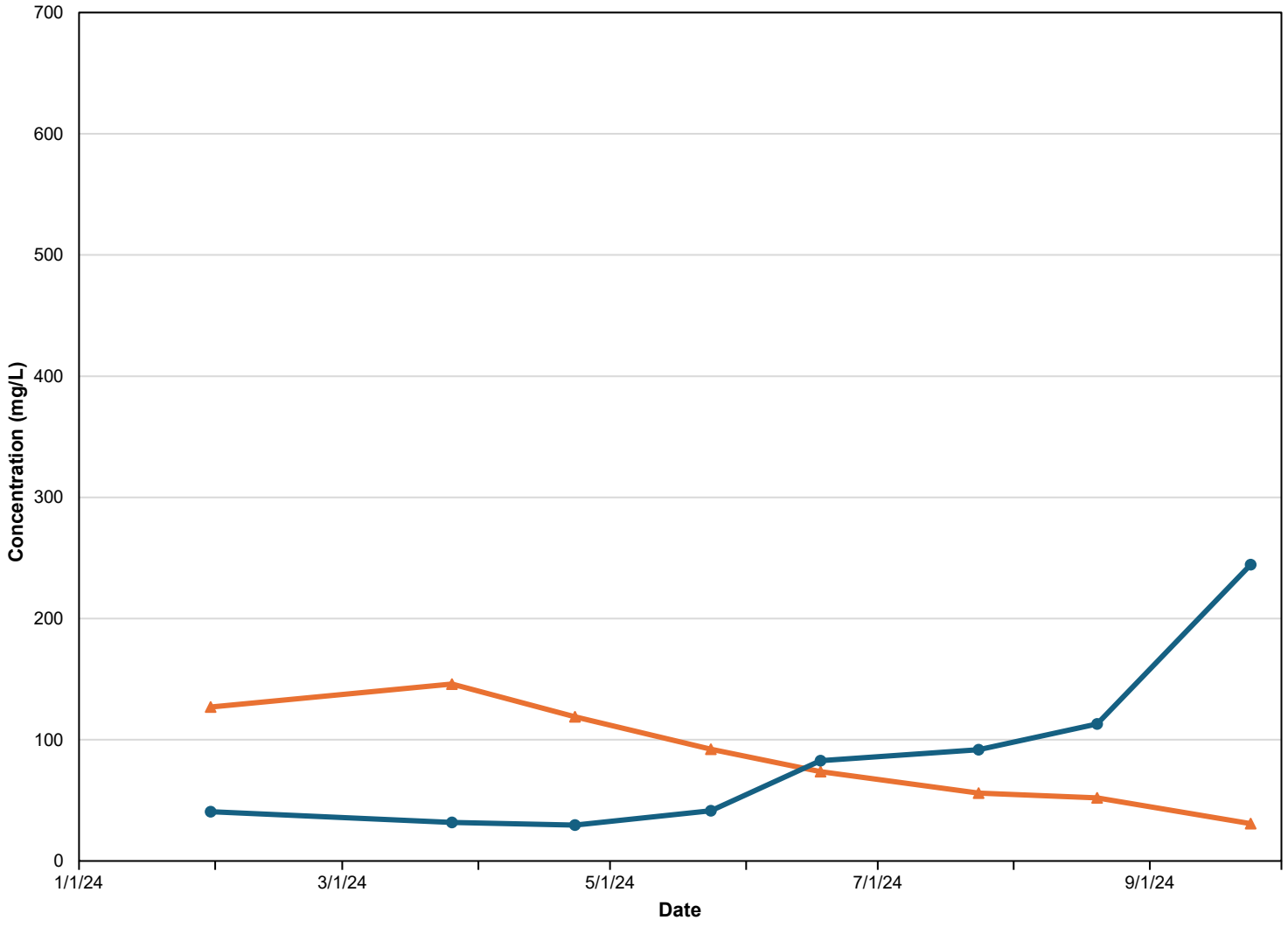
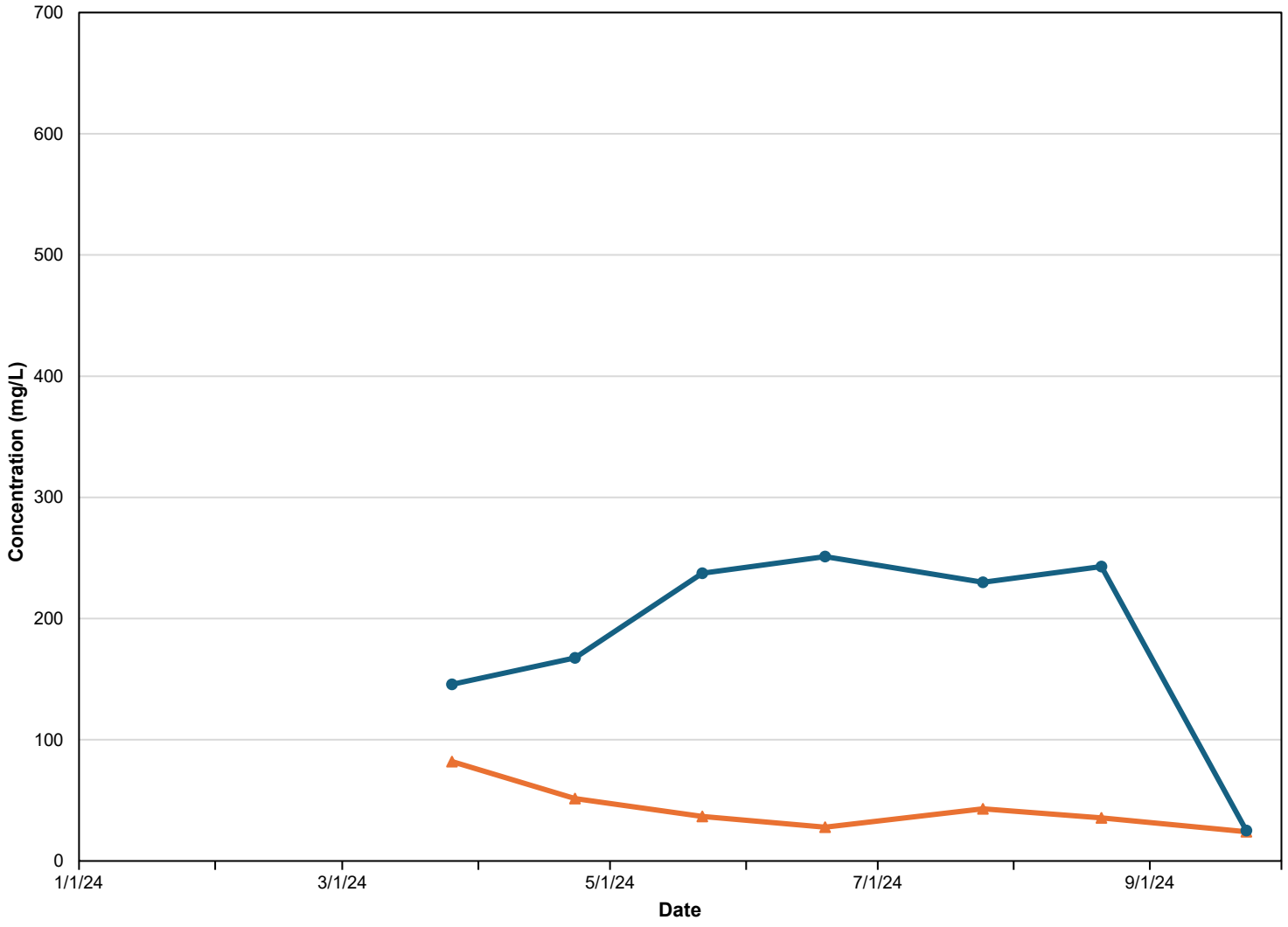


Legend

- Sulfate
- Bicarbonate + Carbonate

Figure 6
MW-2-200 Sulfate vs Bicarbonate Trends
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM

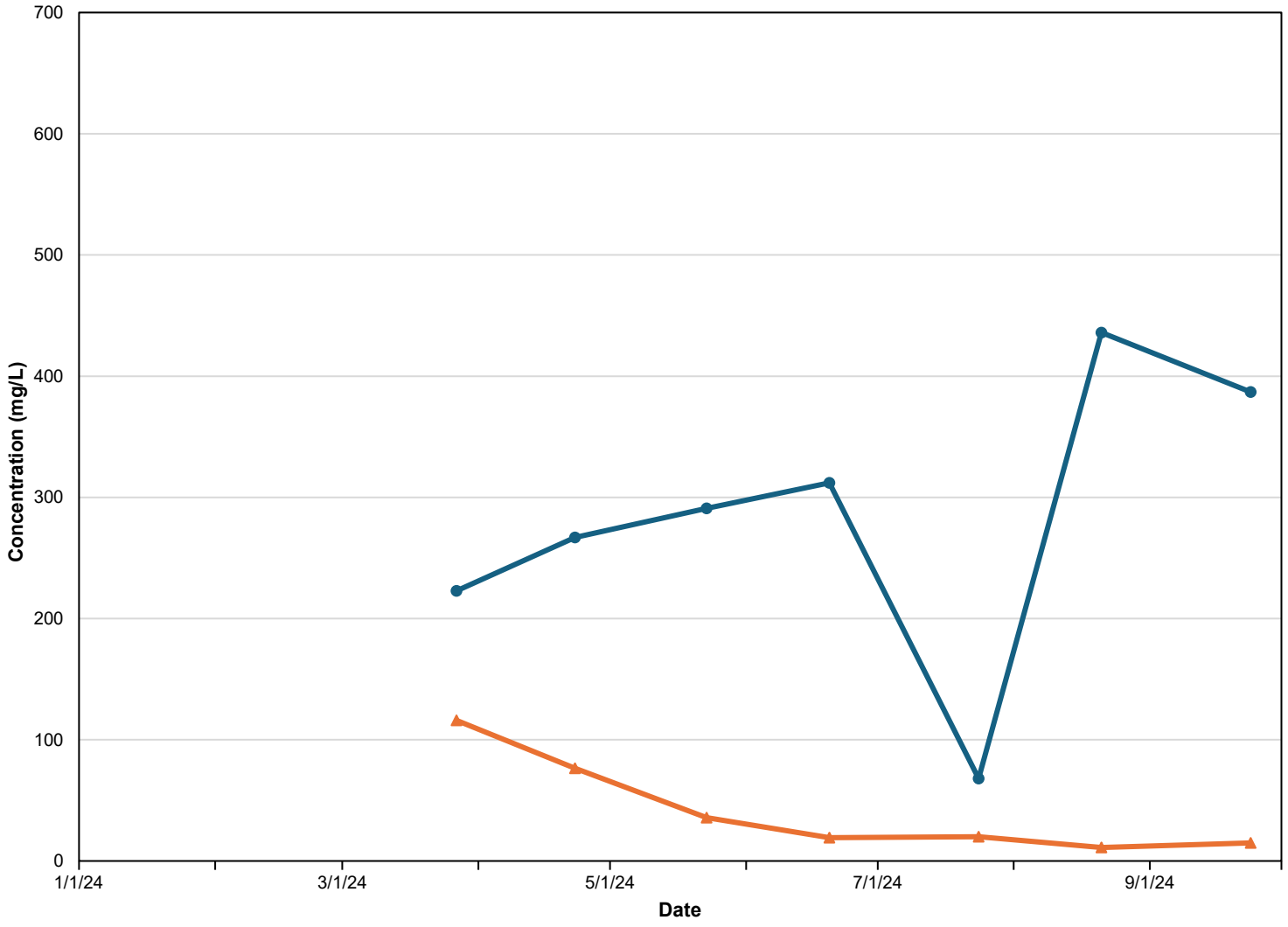


Legend

- Sulfate
- Bicarbonate + Carbonate

Figure 7
MW-2-700 Sulfate vs Bicarbonate Trends
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM

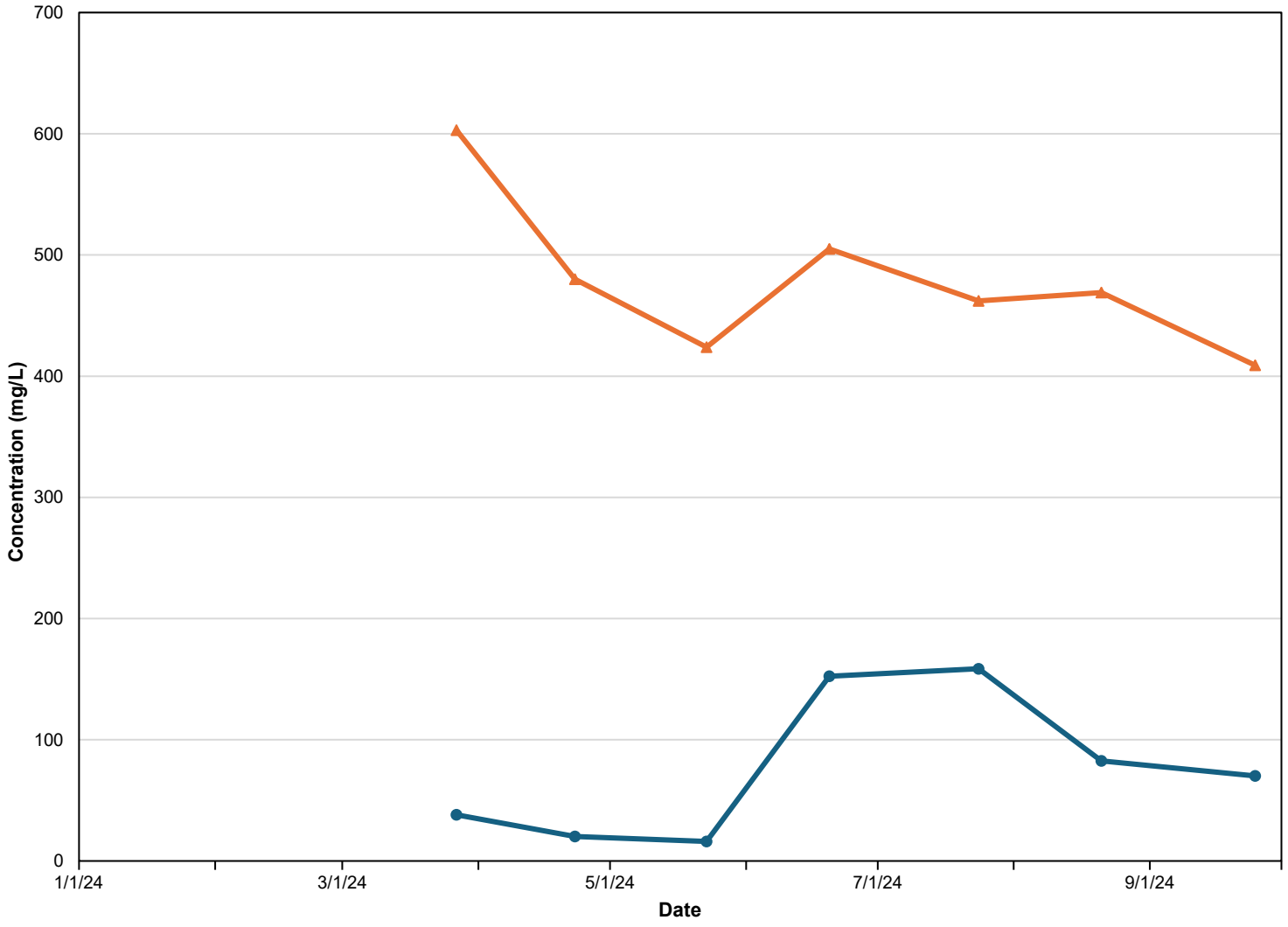


Legend

- Sulfate
- Bicarbonate + Carbonate

Figure 8
MW-3-200 Sulfate vs Bicarbonate Trends
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM

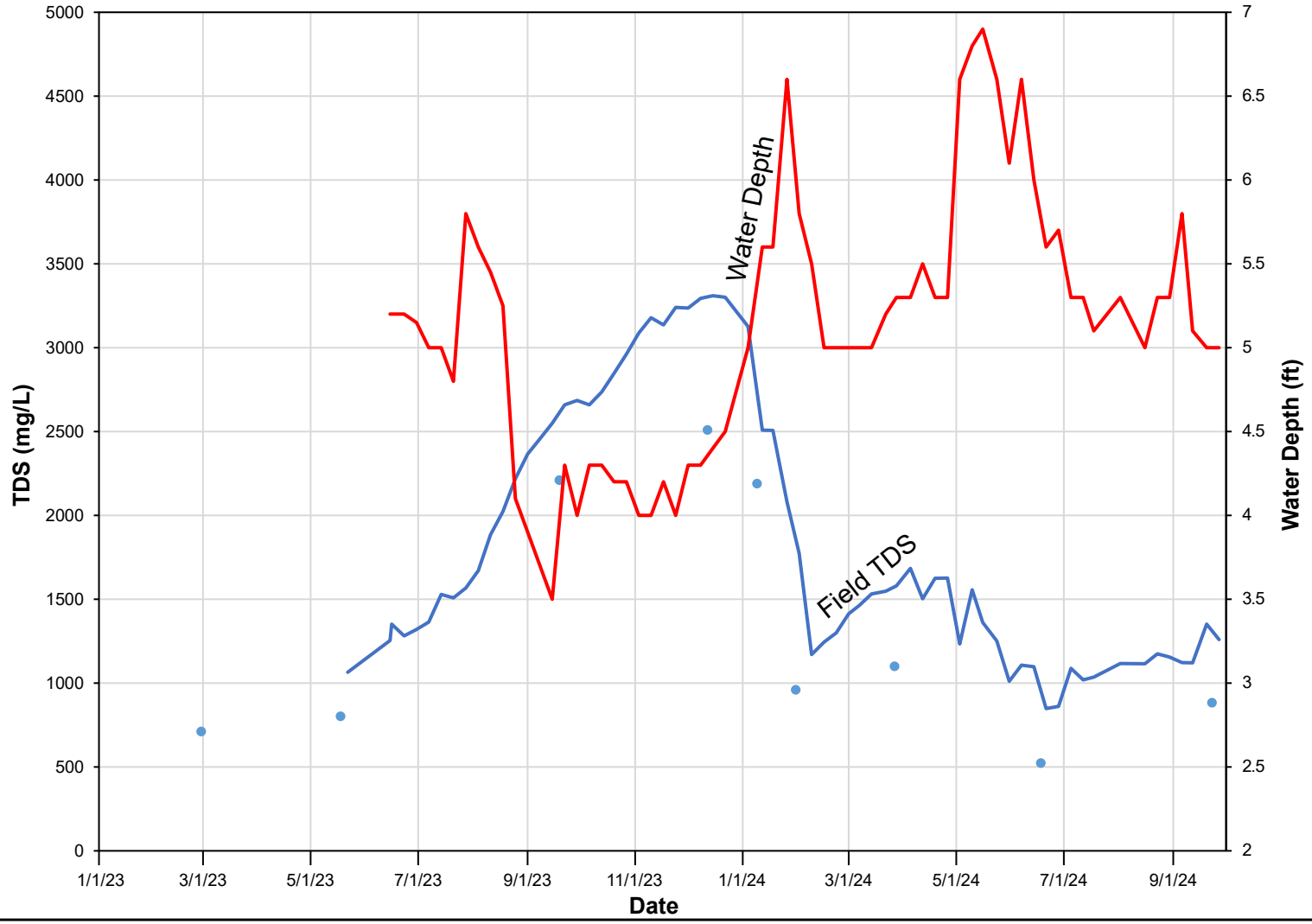


Legend

- Sulfate
- Bicarbonate + Carbonate

Figure 9
MW-3-500 Sulfate vs Bicarbonate Trends
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM



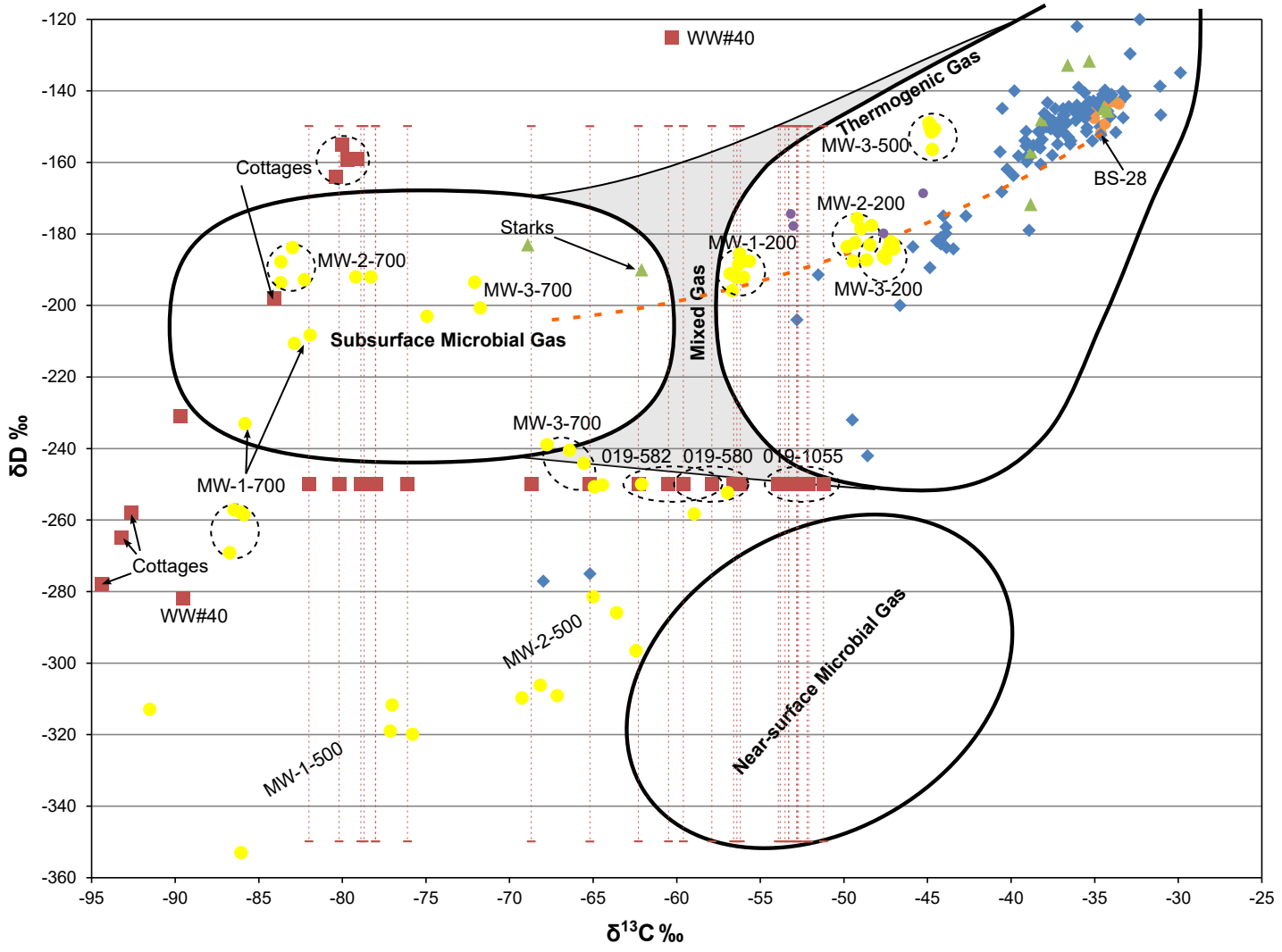
Legend

- Field TDS (mg/L)
- Water Depth (ft)
- Laboratory TDS at LDNR 12 (mg/L)

Notes:
Field TDS measured from approxmiately 5-ft deep with handheld Ultrameter II, which is calculated based on Specific Conductivity.

Figure 10
Central Lake TDS Trend
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM



Legend

- Cavern Gas (Lonquist)
- Bubble Site
- Groundwater
- Monitoring Well
- Brine
- Production Gas
- Potential Mixing Line

Notes:
If δD is not analyzed due to insufficient methane in sample δD is assumed at -250‰ with error bars added.
Coleman, D.D., Liu, C., Hackley, K.C., and Pelphrey, S.R., 1995, Identification of Landfill Methane, Environmental Geosciences, Vol. 2, No. 2, pp. 95-103.

Figure 11
Methane Isotopes
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Lousiana

ERM

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REVISED: 10/31/2024

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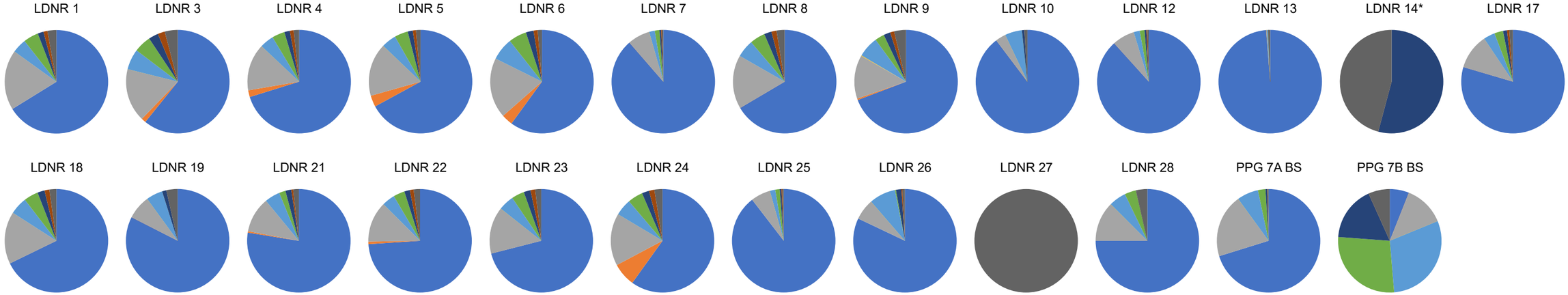
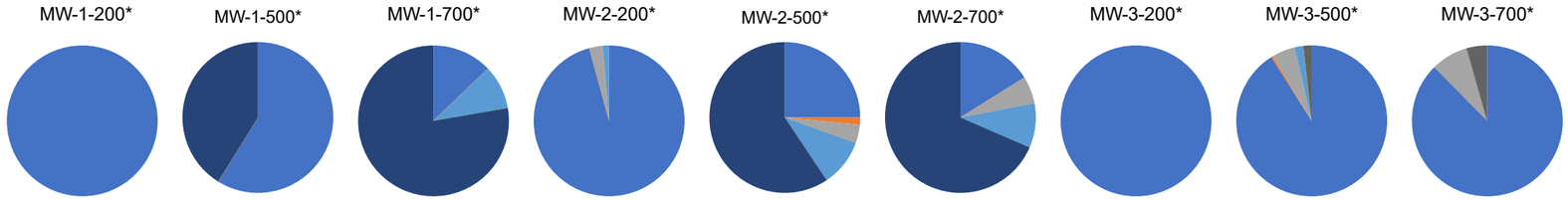
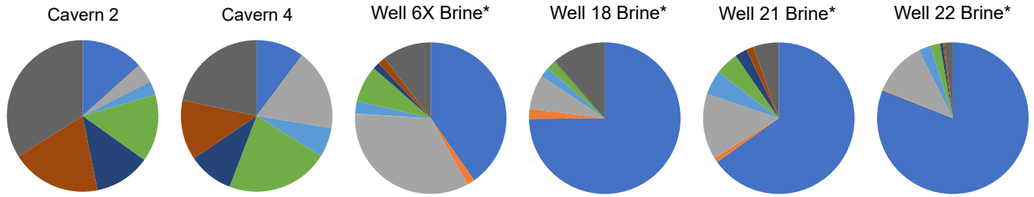
Bubble Sites



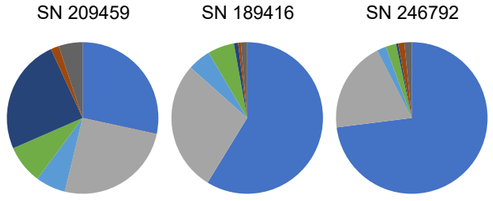
Monitoring Wells



Cavern Gas / Brine



Oil Wells



Legend

- Ethane (C_2)
- Ethene (C_2H_4)
- Propane (C_3)
- Propene (C_3H_6)
- iso-Butane (iC_4)
- n-Butane (nC_4)
- iso-Pentane (iC_5)
- n-Pentane (nC_5)
- Hexanes (C_6+)

Notes:
Methane was not included.
* - dissolved gas sample

Figure 12
Gas Composition Comparison
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

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Legend

- Water Well Sample Location
- "200-foot" Sand Monitoring Well
- Potentiometric Surface Contour (5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 13
Potentiometric Surface Map - May 2024
"200-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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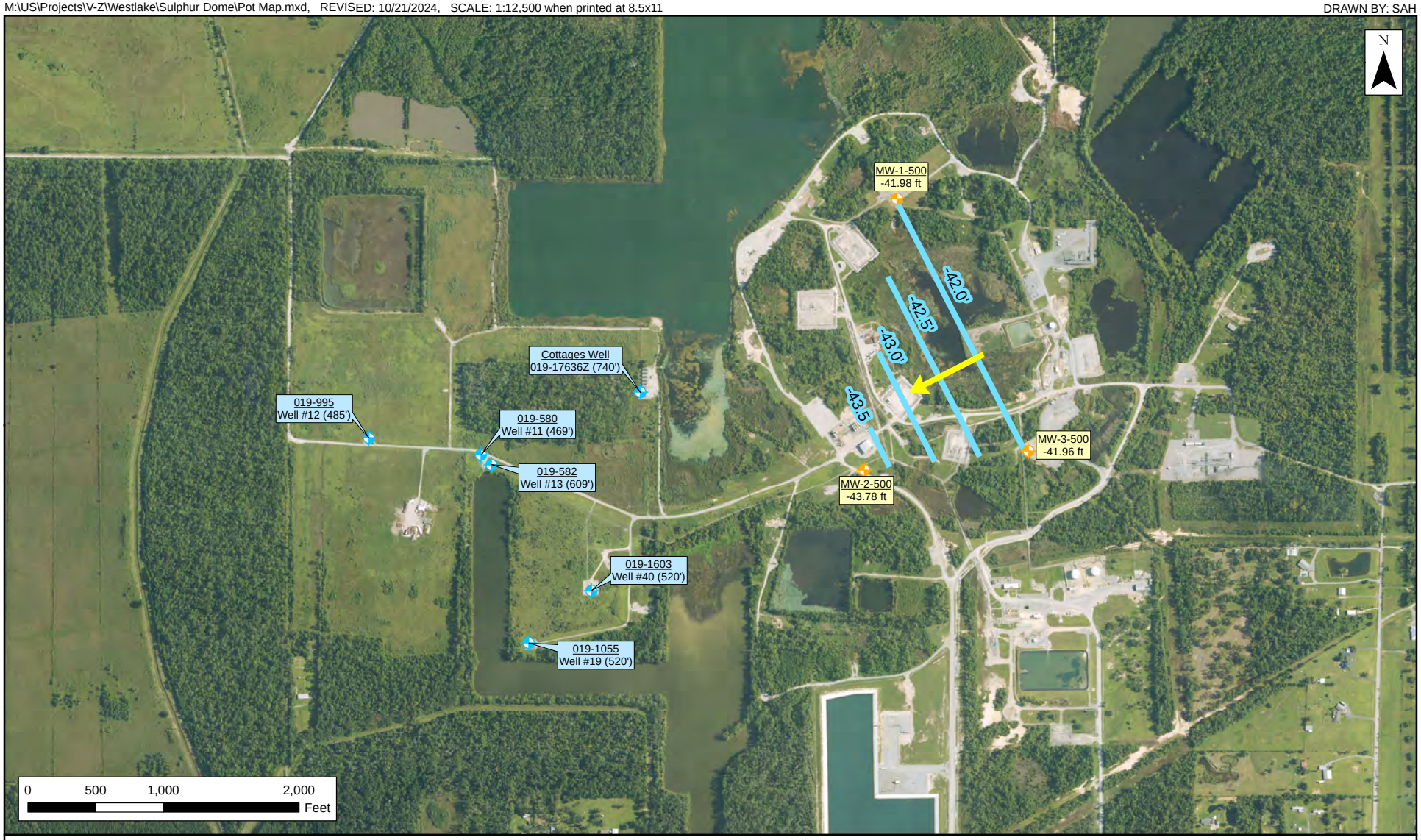

Legend

- Water Well Sample Location
- "500-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 14
Potentiometric Surface Map - May 2024
"500-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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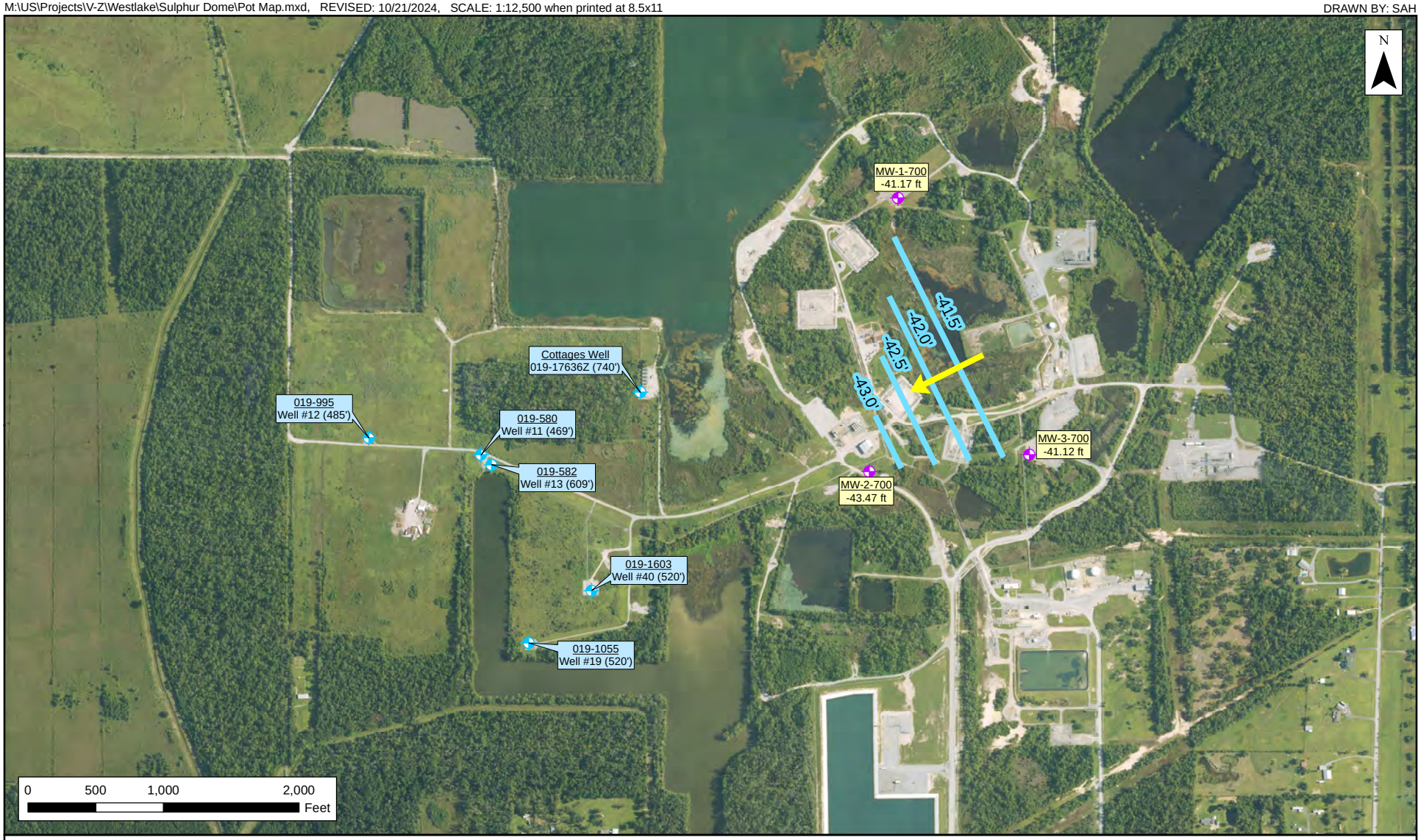

Legend

- Water Well Sample Location
- "700-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 15
Potentiometric Surface Map - May 2024
"700-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

M:\US\Projects\V-Z\Westlake\Sulphur Dome\Pot Map.mxd, REVISED: 10/21/2024, SCALE: 1:12,500 when printed at 8.5x11 DRAWN BY: SAH

Legend

- Water Well Sample Location
- "200-foot" Sand Monitoring Well
- Potentiometric Surface Contour (5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 16
Potentiometric Surface Map - June 2024
"200-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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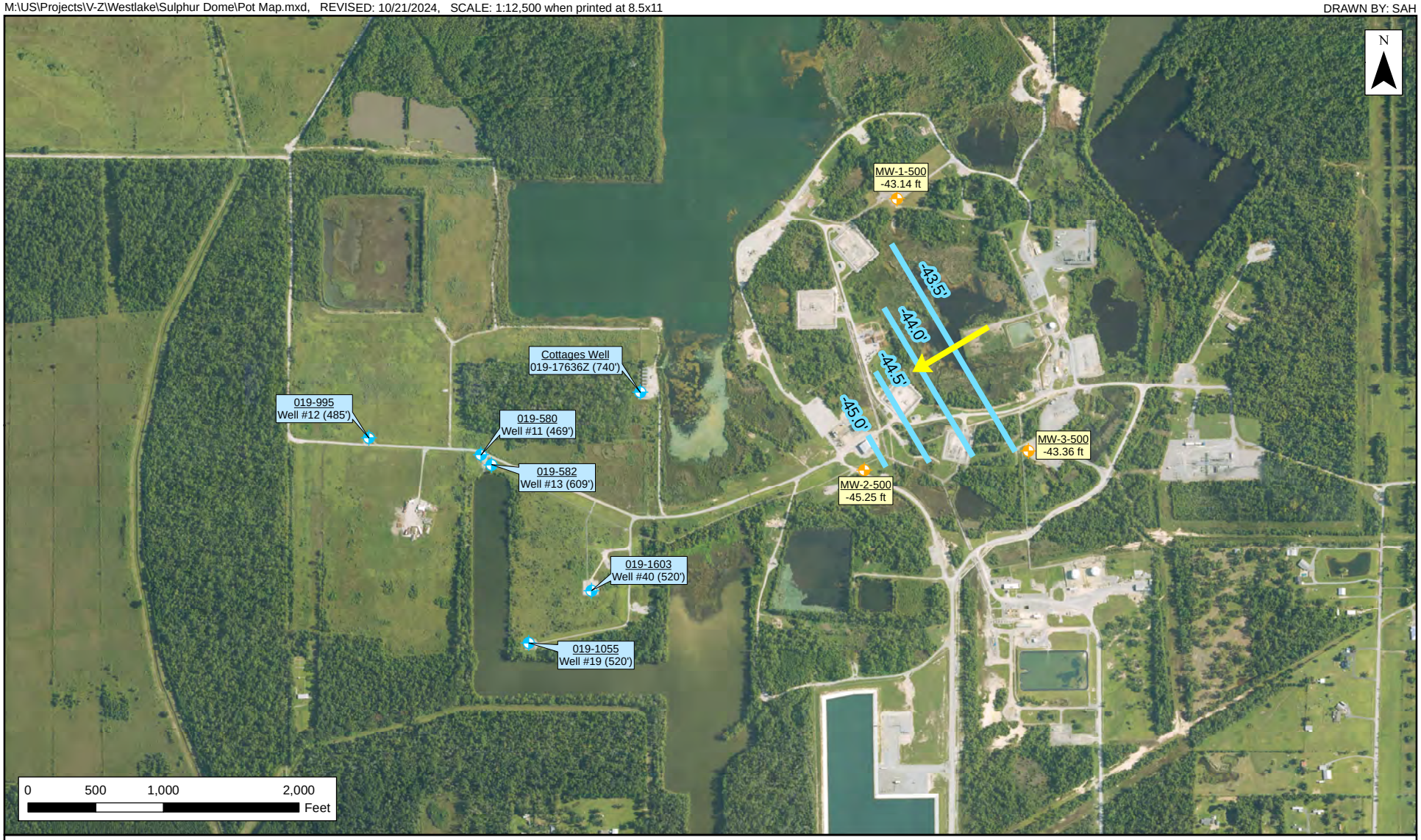

Legend

- Water Well Sample Location
- "500-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 17
Potentiometric Surface Map - June 2024
"500-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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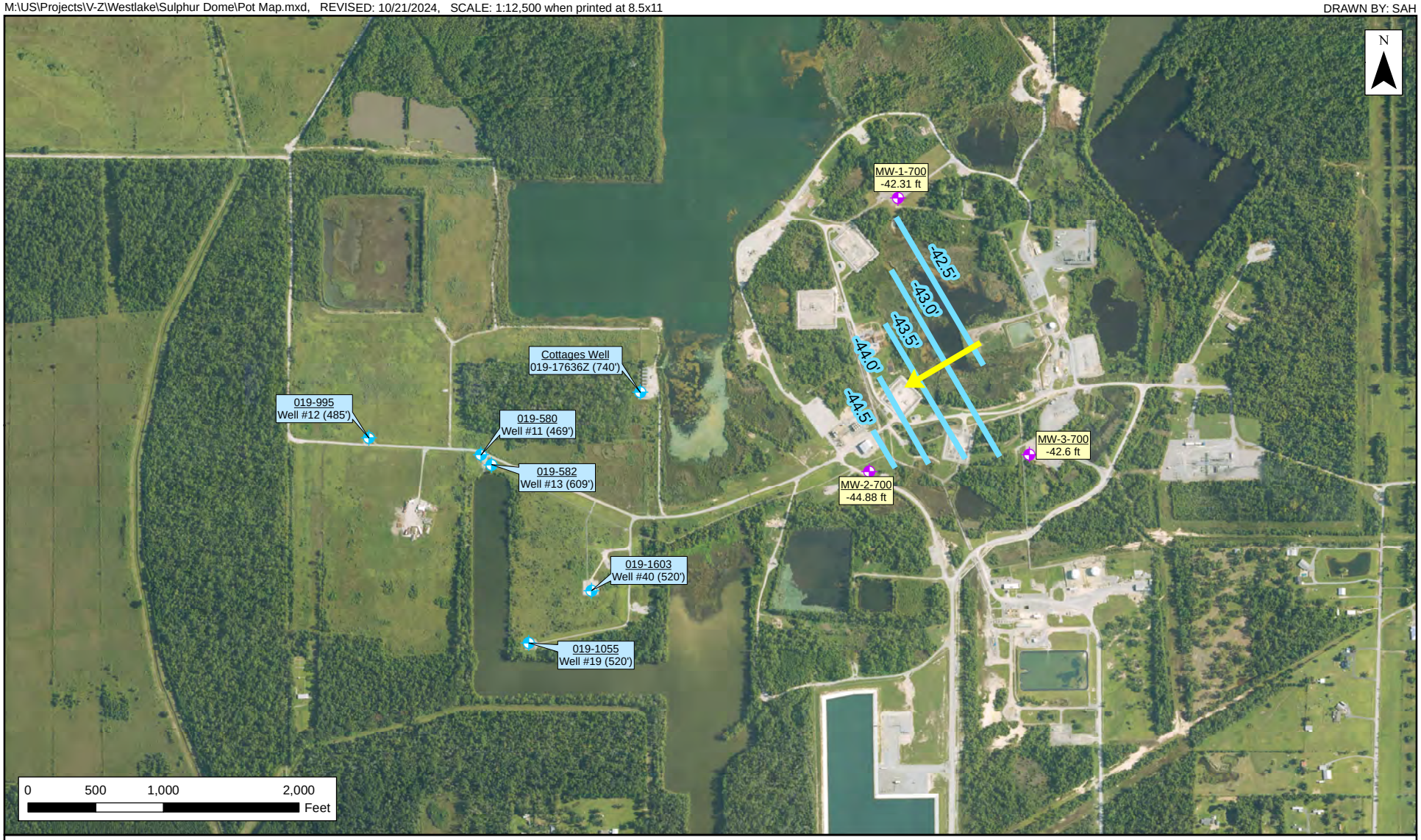

Legend

- Water Well Sample Location
- "700-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 18
Potentiometric Surface Map - June 2024
"700-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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Legend

- Water Well Sample Location
- "200-foot" Sand Monitoring Well
- Potentiometric Surface Contour (5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 19
Potentiometric Surface Map - July 2024
"200-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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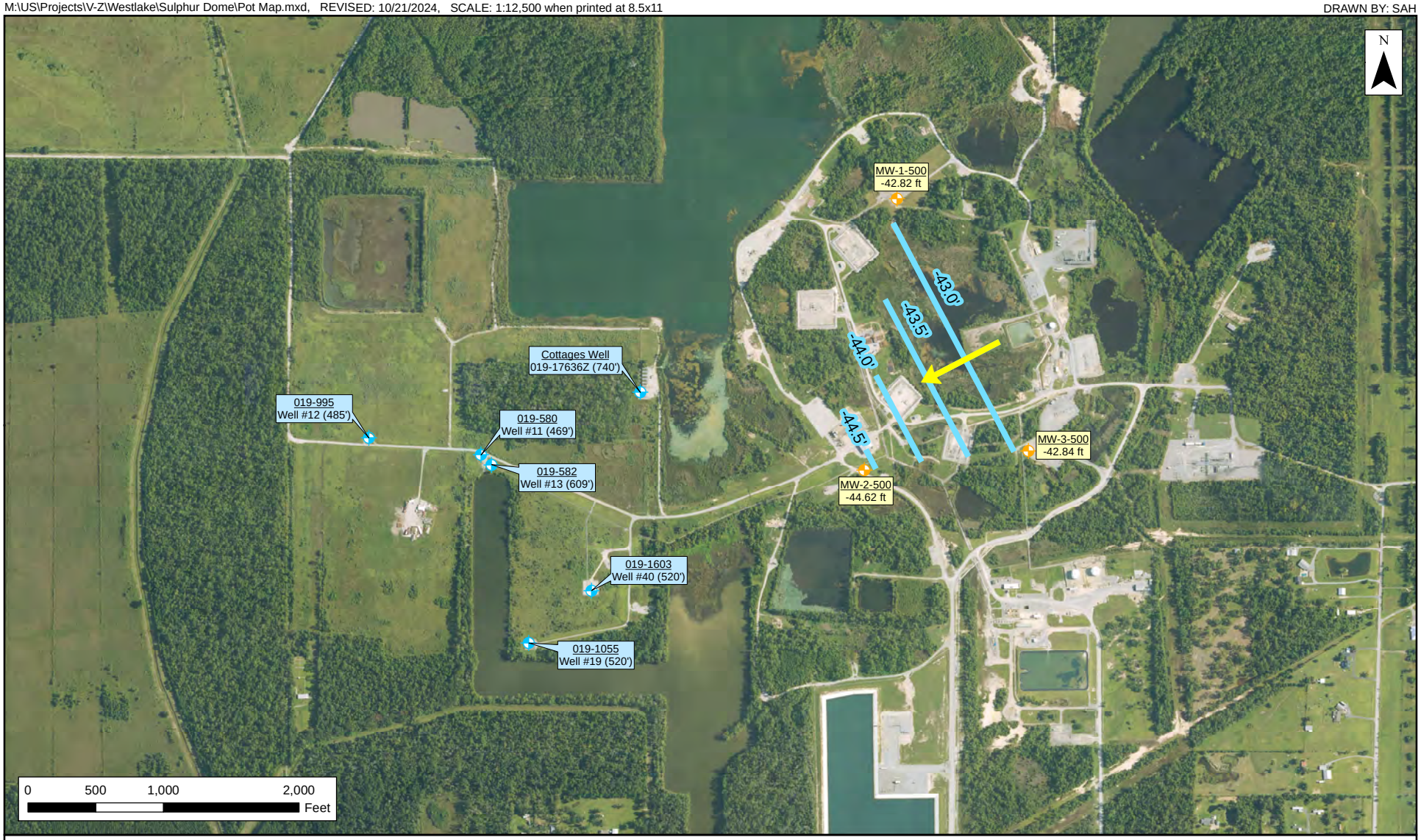

Legend

- Water Well Sample Location
- "500-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 20
Potentiometric Surface Map - July 2024
"500-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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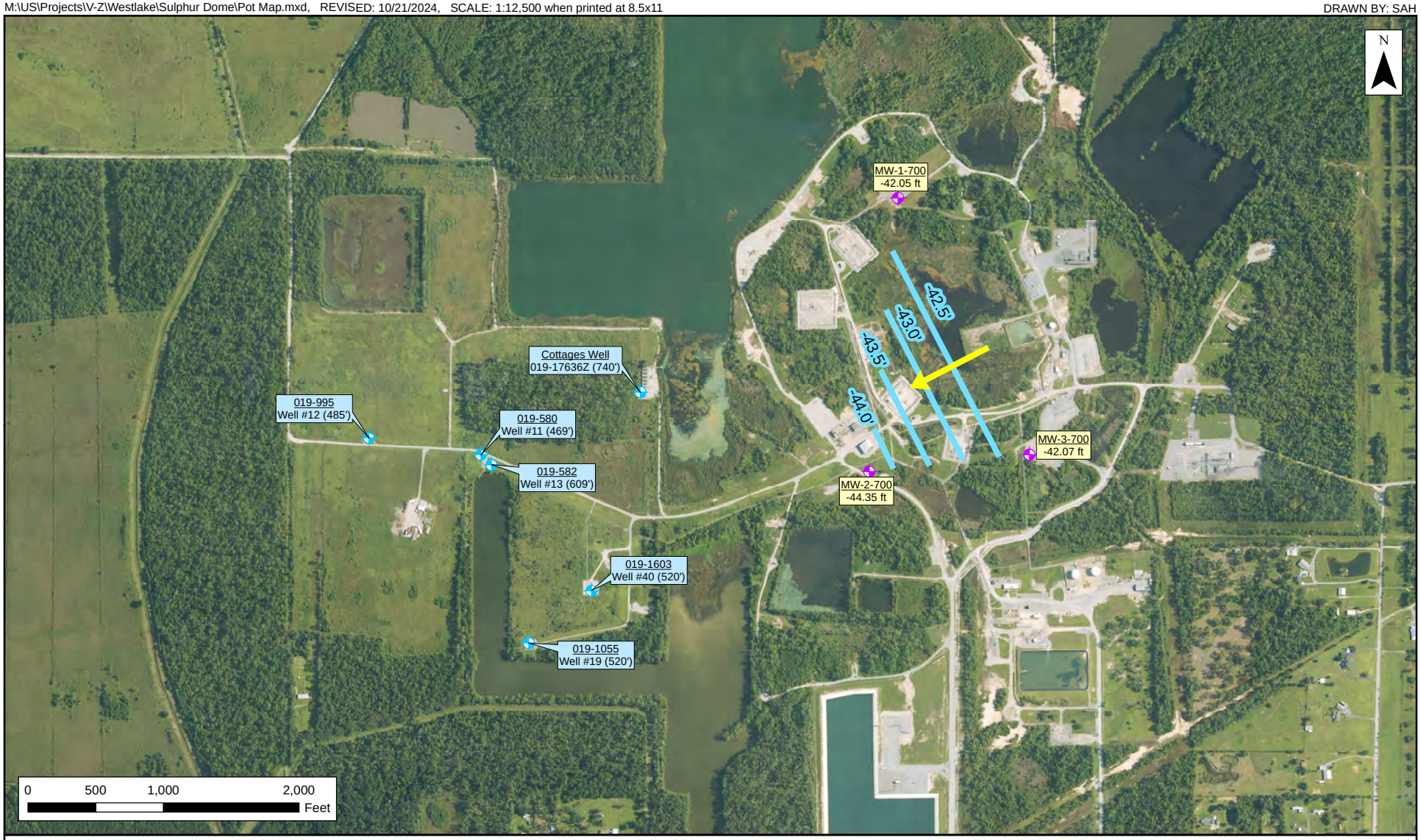

Legend

- Water Well Sample Location
- "700-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 21
Potentiometric Surface Map - July 2024
"700-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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Legend

- Water Well Sample Location
- "200-foot" Sand Monitoring Well
- Potentiometric Surface Contour (5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 22
Potentiometric Surface Map - August 2024
"200-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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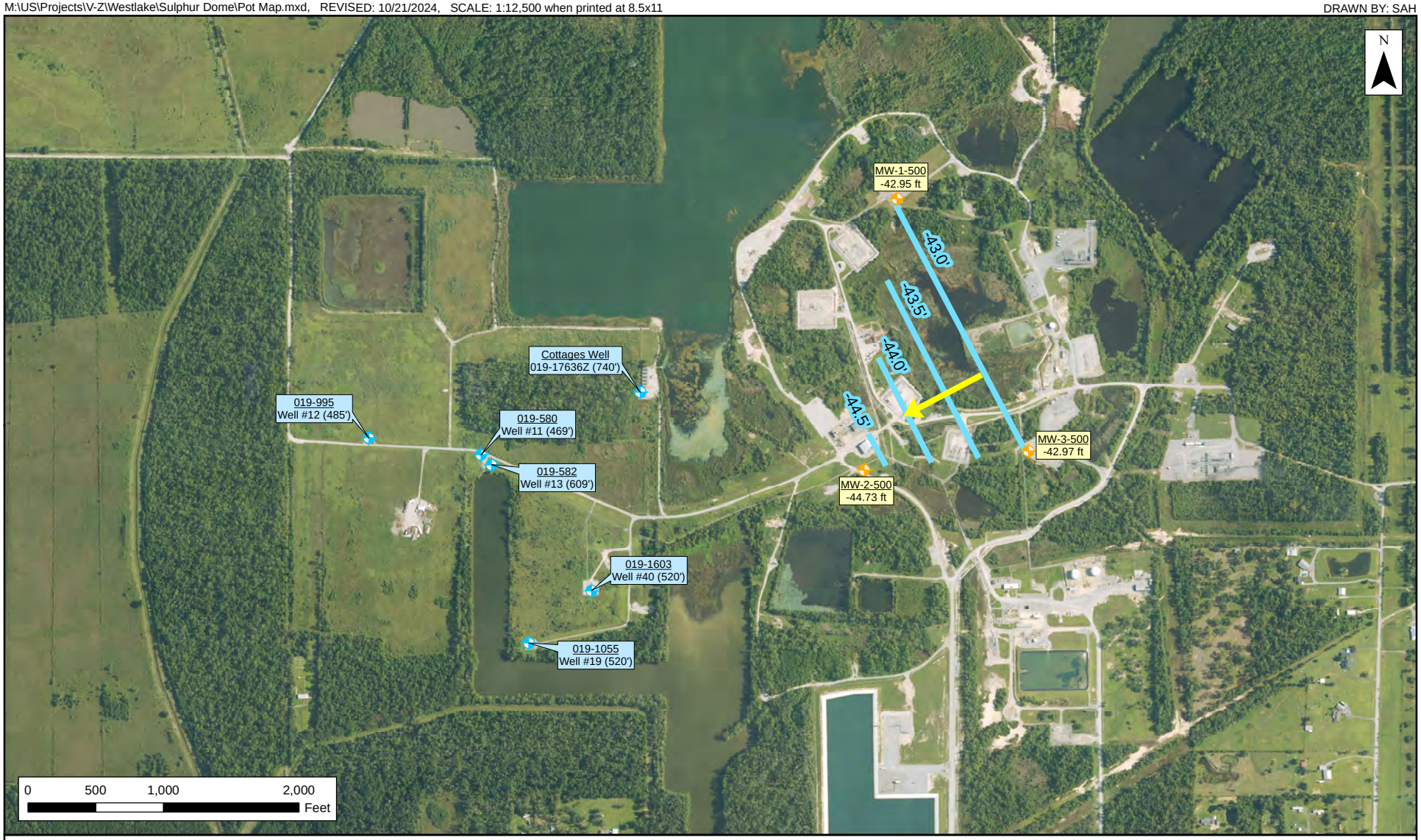

Legend

- Water Well Sample Location
- "500-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 23
Potentiometric Surface Map - August 2024
"500-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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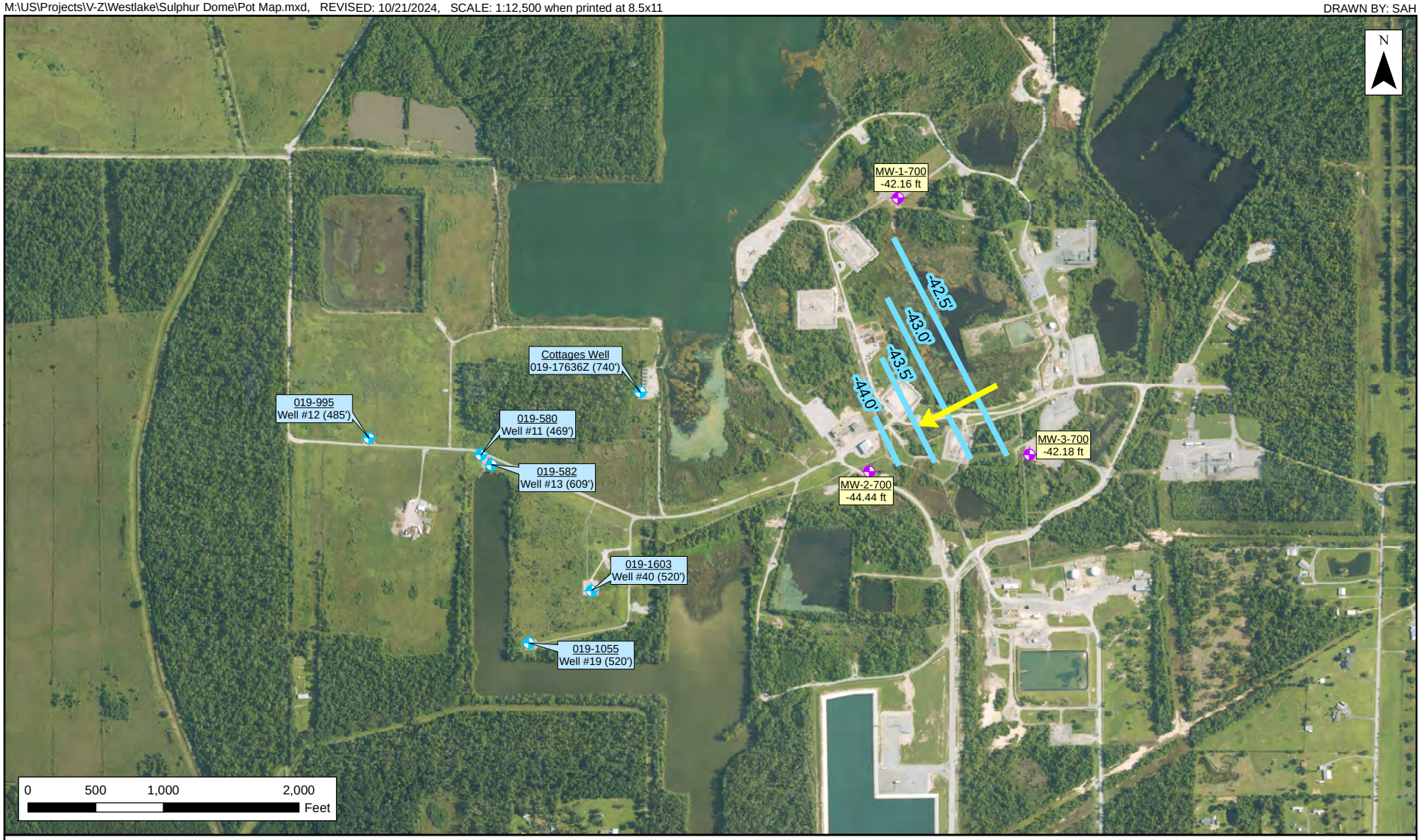

Legend

- Water Well Sample Location
- "700-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 24
Potentiometric Surface Map - August 2024
"700-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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Legend

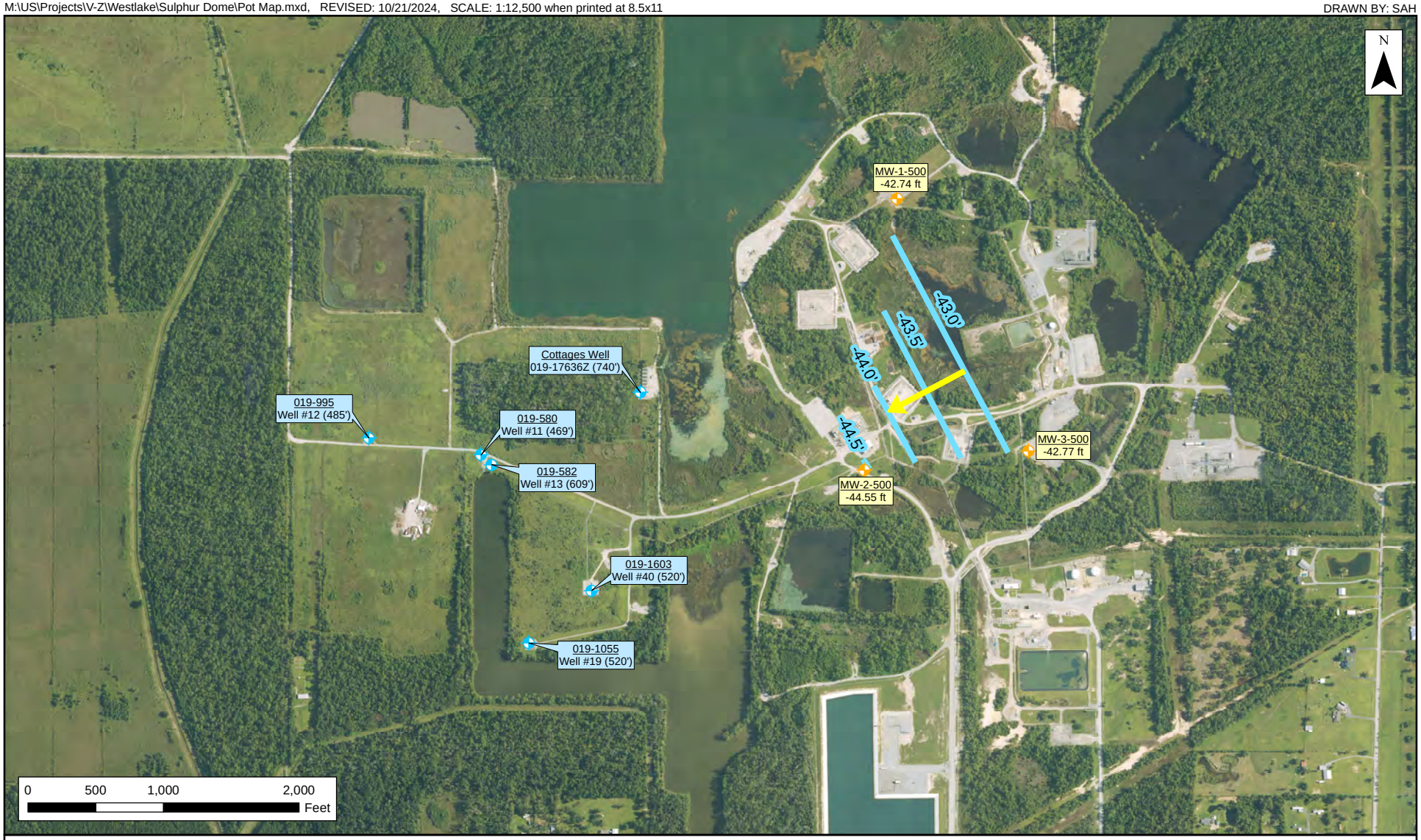
- Water Well Sample Location
- "200-foot" Sand Monitoring Well
- Potentiometric Surface Contour (5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 25
Potentiometric Surface Map - September 2024
"200-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N



Legend

- Water Well Sample Location
- "500-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 26
Potentiometric Surface Map - September 2024
"500-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

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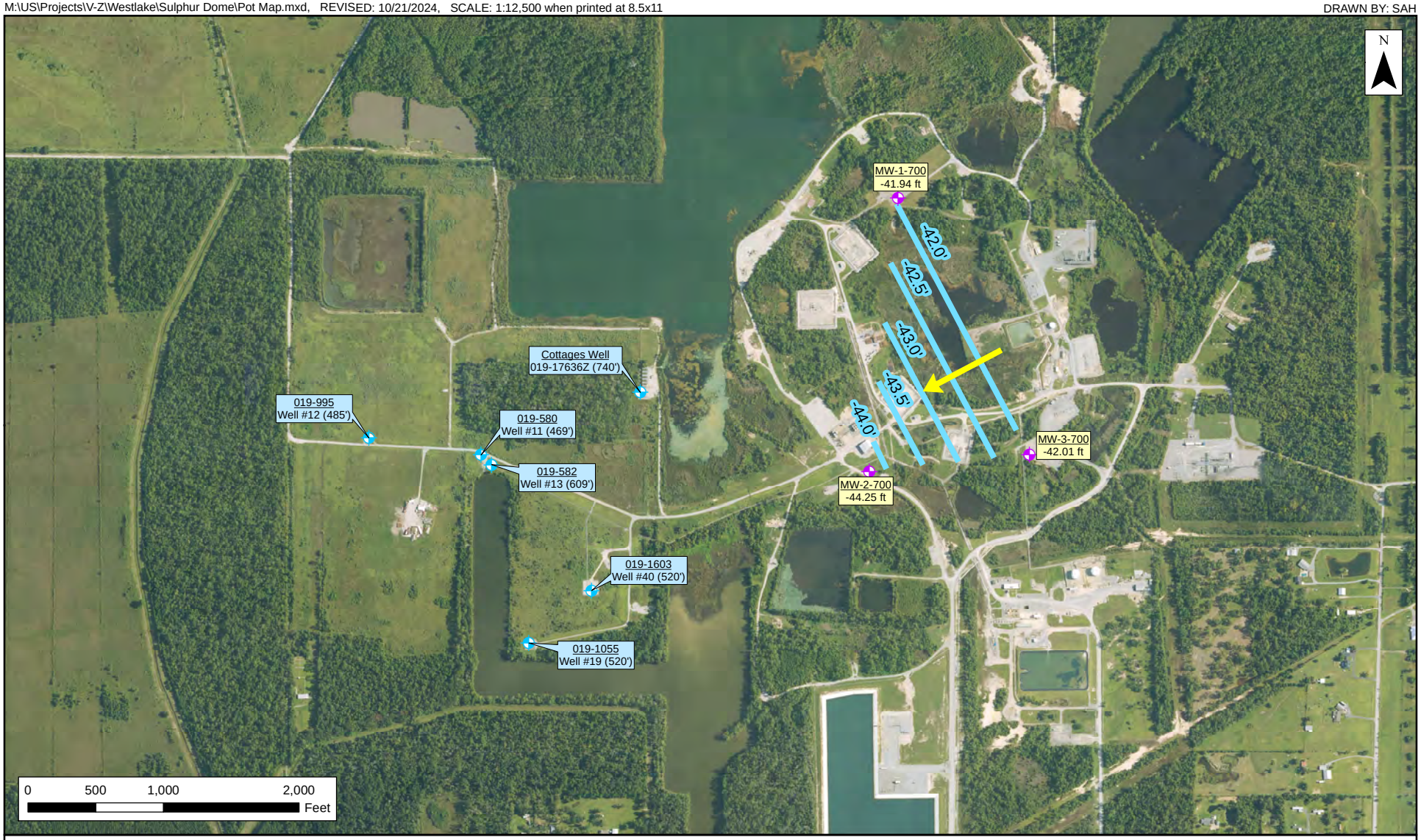

Legend

- Water Well Sample Location
- "700-foot" Sand Monitoring Well
- Potentiometric Surface Contour (0.5 ft)
- General Direction of Groundwater Flow

Notes:
Groundwater elevations adjusted to equivilent freshwater head (Post, et al., 2007)
2023 Aerial imagery via USDA (NAIP).

Figure 27
Potentiometric Surface Map - September 2024
"700-foot" Sand
Sulphur Dome
Westlake US 2, LLC
Calcasieu Parish, Louisiana

ERM

Source: Esri - ArcGIS Online; NAD 1983 UTM Zone 15N

TABLES

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units		Sample ID	Sample Location	Sample Interval (ft)	Sample Date	Sampler
			019-580	WW #11	469'	1/26/23	ERM
						3/30/23	ERM
						4/27/23	ERM
						5/22/23	ERM
						6/16/23	ERM
						7/17/23	ERM
						8/22/23	ERM
						9/20/23	ERM
						10/25/23	ERM
						11/28/23	ERM
						12/14/23	ERM
						1/31/24	ERM
						2/20/24	ERM
						3/28/24	ERM
						4/23/24	ERM
						5/22/24	ERM
						6/18/24	ERM
						7/25/24	ERM
						8/21/24	ERM
						9/24/24	ERM
			Industrial Water Wells				
Total Metals		**RECAP GWSS**					
Arsenic	mg/L	0.01	0.000477 J	<0.0004	0.000615 J	<0.0004	0.000452 J
Barium	mg/L	2	**0.23**	**0.235**	**0.205**	**0.216**	**0.197**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Calcium	mg/L	NS	**26.8**	**25.4**	**15.8**	**24.1**	**22.7**
Chromium	mg/L	0.1	<0.0004	<0.0004	0.000559 J	<0.0004	0.000462 J
Iron[a]	mg/L	0.3	**5.12**	**4.25**	**2.72**	**1.81**	**3.61**
Lead	mg/L	0.015	0.00144 J	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**8.03**	**8.10**	**4.32**	**7.19**	**7.43**
Manganese[a]	mg/L	0.05	**0.412**	**0.413**	**0.215**	**0.317**	**0.355**
Mercury	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	NA	NA	**0.00368**	<0.0006	<0.0006
Potassium	mg/L	NS	**2.93**	**2.68**	**2.42**	**2.62**	**2.51**
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium	mg/L	NS	**31.9**	**27.7**	**71.5**	**27.4**	**24.6**
Strontium	mg/L	NS	**0.246**	**0.228**	**0.183**	**0.212**	**0.214**
Vanadium	mg/L	0.026	NA	NA	0.00434 J	<0.0006	0.00322 J
Zinc	mg/L	1.1	**0.0147**	**0.0495**	**0.350**	**0.011**	**0.0130**
Anions/Water Quality Parameters							
Bicarbonate Alkalinity	mg/L	NS	**200**	**115**	**116**	**114**	**107**
Bromide	mg/L	NS	0.0992 J	<0.03	<0.03	**0.169**	<0.03
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<5	<5
Chloride[a]	mg/L	250	**35.7**	**26.4**	**40.7**	**38.7**	**23.7**
Sulfate[a]	mg/L	250	**2.91**	**3.67**	**2.21**	**3.3**	**4.28**
Total Dissolved Solids (TDS)[a]	mg/L	500	**236**	**186**	**210**	**266**	**204**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	NA	7.04 H	NA	7.30 H	7.22 H
pH (field)	SI	6.5 - 8.5	**6.41**	NA	**5.79**	**6.68**	NA
Sulfides							
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	NS	<1	<1.7	<1.7	<1.7	<1.7
Volatile Organic Compounds							
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions							
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	<0.004
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	<0.003
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.009	<0.009
Stable Isotopes							
δD	‰	NS	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA

Constituent	Units		019-580																		
			WW #11																		
			469'																		
			7/17/23	8/22/23	9/20/23	10/25/23	11/28/23	12/14/23	1/31/24	2/20/24	3/28/24	4/23/24	5/22/24	6/18/24	7/25/24	8/21/24	9/24/24				
			ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM				
			Industrial Water Wells																		
Total Metals		**RECAP GWSS**																			
Arsenic	mg/L	0.01	0.000556 J	<0.0004	<0.0004	0.000688 J	<0.0004	<0.0004	0.000723 J	0.000481 J	0.000743 J	<0.0004	0.000487 J	<0.0004	0.000509 J	<0.0004	0.000430 J				
Barium	mg/L	2	**0.200**	**0.221**	**0.233**	**0.217**	**0.196**	**0.207**	**0.227**	**0.265**	**0.207**	**0.208**	**0.213**	**0.204**	**0.219**	**0.184**	**0.188**				
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Calcium	mg/L	NS	**18.9**	**25.1**	**27.9**	**24.5**	**21.9**	**24.0**	**21.9**	**27.7**	**22.9**	**22.5**	**22.1**	**22.4**	**23.8**	**19.4**	**21.2**				
Chromium	mg/L	0.1	<0.0004	0.00172 J	<0.0004	<0.0004	<0.0004	0.000681 J	0.000559 J	<0.0004	0.000654 J	0.000926 J	0.000516 J	0.000502 J	0.000456 J	<0.0004	0.000712 J				
Iron[a]	mg/L	0.3	**6.07**	**4.97**	**3.57**	**3.84**	**3.53**	**3.66**	**3.51**	**1.45**	**3.51**	**3.57**	**5.25**	**3.59**	**3.77**	**3.10**	**3.40**				
Lead	mg/L	0.015	<0.0006	**0.00388**	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000870 J	**0.00231**	<0.0006	<0.0006	<0.0006	<0.0006				
Magnesium	mg/L	NS	**7.71**	**8.54**	**7.66**	**7.31**	**7.35**	**7.00**	**8.70**	**7.24**	**6.97**	**6.80**	**7.07**	**6.69**	**6.02**	**6.59**					
Manganese[a]	mg/L	0.05	**0.411**	**0.471**	**0.397**	**0.360**	**0.373**	**0.353**	**0.352**	**0.366**	**0.370**	**0.307**	**0.372**	**0.385**	**0.307**	**0.348**					
Mercury	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.0000330 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003				
Nickel	mg/L	0.073	0.000793 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000724 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006				
Potassium	mg/L	NS	**1.99**	**2.64**	**3.06**	**2.84**	**2.42**	**2.63**	**2.44**	**2.91**	**2.5**	**2.44**	**2.38**	**2.40**	**2.22**	**2.17**	**2.38**				
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Sodium	mg/L	NS	**19.7**	**30.2**	**30.1**	**28.2**	**24.3**	**24.8**	**23.4**	**32.5**	**24.4**	**23.9**	**23.2**	**24.2**	**24.9**	**20.3**	**22.5**				
Strontium	mg/L	NS	**0.175**	**0.215**	**0.247**	**0.220**	**0.191**	**0.195**	**0.203**	**0.255**	**0.203**	**0.196**	**0.192**	**0.194**	**0.216**	**0.179**	**0.193**				
Vanadium	mg/L	0.026	<0.0006	<0.0006	<0.0006	**0.0151**	0.00157 J	<0.0006	0.00216 J	0.00273 J	**0.00523**	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006				
Zinc	mg/L	1.1	**0.00934**	**0.00613**	**0.0215**	**0.0103**	**0.0094**	**0.0065**	**0.0109**	**0.0138**	**0.0211**	**0.0106**	**0.0128**	**0.00828**	**0.00737**	**0.0111**	**0.0121**				
Anions/Water Quality Parameters																					
Bicarbonate Alkalinity	mg/L	NS	**120**	**123**	**114**	**112**	**113**	**111**	**120**	**113**	**112**	**118**	**124**	**120**	**148**	**155**					
Bromide	mg/L	NS	0.0634 J	<0.03	<0.03	<0.03	<0.03	<0.03	0.0647 J	<0.03	<0.03	<0.03	<0.03	<0.03	**0.108**	<0.03	**0.101**				
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3	<3	<3	<3	<3	<3				
Chloride[a]	mg/L	250	**37.1**	**38.1**	**24.8**	**23.9**	**23.8**	**23.1**	**37.5**	**22.5**	**24.4**	**23.9**	**23.2**	**24.2**	**24.9**	**27.3**	**23.4**				
Sulfate[a]	mg/L	250	**2.95**	**2.58**	**5.13**	**4.33**	**4.65**	**4.10**	**4.64**	**4.46**	**4.39**	**4.44**	**4.17**	**3.87**	<0.2	**4.25**					
Total Dissolved Solids (TDS)[a]	mg/L	500	**204**	**232**	**168**	**210**	**138**	**238**	**244**	**196**	**182**	**170**	**158**	**166**	**174**	**98.0**					
Total Organic Carbon (TOC)	mg/L	NS	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
pH[a]	SI	6.5 - 8.5	7.85 H	7.63 H	7.25 H	7.12 H	7.16 H	7.48 H	7.78 H	7.33 H	7.53 H	7.45 H	7.02 H	6.88 H	7.13 H	7.83 H	7.45 H				
pH (field)	SI	6.5 - 8.5	**6.40**	**6.90**	NA	**5.83**	**5.99**	**6.88**	**7.15**	**6.18**	**6.90**	**6.40**	**7.04**	NA	NA	**6.89**	NA				
Sulfides																					
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Sulfide	mg/L	NS	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2				
Volatile Organic Compounds																					
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003				
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002				
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003				
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003				
TPH Fractions																					
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.017	<0.085	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333				
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.019	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333				
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008	**0.0243**	<0.008	<0.008	**0.0293**	<0.025	<0.025	<0.025	<0.025	<0.025	0.0402 J				
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.012	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333				
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	**0.0661**	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	**0.0115**	**0.0214**	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	**0.0450**	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025				
Stable Isotopes																					
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

		Sample ID	**019-582**															
		Sample Location	**WW #13**															
		Sample Interval (ft)								609'								
		Sample Date	1/26/23	3/30/23	4/27/23	5/22/23	6/16/23	7/17/23	8/22/23	9/20/23	10/25/23	11/28/23	12/14/23	1/31/24	2/20/24	3/28/24	4/24/24	5/22/24	9/26/24
		Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**		**Industrial Water Wells**																
Total Metals		**RECAP GWSS**																	
Arsenic	mg/L	0.01	0.000812 J	<0.0004	0.000451 J	0.000418 J	0.000635 J	0.000436 J	0.000488 J	<0.0004	0.000739 J	<0.0004	<0.0004	0.000697 J	**0.000475**	0.000870 J	<0.0004	0.000478 J	0.000437 J
Barium	mg/L	2	**0.239**	**0.221**	**0.243**	**0.232**	**0.210**	**0.217**	**0.224**	**0.197**	**0.218**	**0.188**	**0.206**	**0.215**	**0.214**	**0.221**	**0.189**	**0.202**	**0.213**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS	**25.5**	**23.9**	**25.8**	**24.6**	**22.9**	**21.1**	**24.2**	**22.6**	**22.9**	**22.3**	**23.5**	**21.7**	**22.2**	**23.4**	**21.3**	**20.3**	**24.3**
Chromium	mg/L	0.1	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.000697 J	0.000469 J	<0.0004	0.00105 J	0.000929 J	0.000631 J	<0.0004	0.000540 J	<0.0004	0.000630 J	0.000849 J
Iron[a]	mg/L	0.3	**4.03**	**4.02**	**6.09**	**6.13**	**3.28**	**3.12**	**3.49**	**4.49**	**3.23**	**2.55**	**4.70**	**4.04**	**2.01**	**3.24**	**2.37**	**2.87**	**4.65**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**7.81**	**7.66**	**7.58**	**7.36**	**7.36**	**6.45**	**7.47**	**7.05**	**7.05**	**7.47**	**7.08**	**6.91**	**6.78**	**7.25**	**6.67**	**6.15**	**7.32**
Manganese[a]	mg/L	0.05	**0.417**	**0.388**	**0.388**	**0.408**	**0.361**	**0.349**	**0.372**	**0.353**	**0.379**	**0.423**	**0.388**	**0.362**	**0.310**	**0.385**	**0.343**	**0.347**	**0.389**
Mercury	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.0000640 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	NA	NA	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000831 J	0.000872 J	0.000704 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Potassium	mg/L	NS	**2.94**	**2.50**	**2.70**	**2.55**	**2.49**	**2.28**	**2.74**	**3.30**	**2.64**	**2.60**	**2.54**	**2.40**	**2.31**	**2.51**	**2.30**	**2.13**	**2.50**
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS	**28.0**	**26.4**	**30.2**	**27.8**	**24.7**	**22.2**	**29.8**	**46.5**	**26.2**	**24.8**	**24.4**	**23.4**	**25.7**	**25.0**	**22.8**	**21.0**	**24.7**
Strontium	mg/L	NS	**0.240**	**0.208**	**0.231**	**0.218**	**0.221**	**0.195**	**0.215**	**0.201**	**0.216**	**0.195**	**0.192**	**0.197**	**0.209**	**0.217**	**0.187**	**0.186**	**0.214**
Vanadium	mg/L	0.026	NA	NA	0.00352 J	<0.0006	0.00358 J	<0.0006	<0.0006	<0.0006	**0.0148**	0.00222 J	<0.0006	0.00200 J	0.00167 J	0.00475 J	<0.0006	<0.0006	<0.0006
Zinc	mg/L	1.1	**0.0107**	**0.0166**	**0.0474**	**0.019**	**0.00897**	**0.0102**	**0.656**	**0.00742**	**0.0115**	**0.00754**	**0.00922**	**0.00897**	**0.00841**	**0.0118**	**0.00814**	**0.00914**	**0.0059**
Anions/Water Quality Parameters																			
Bicarbonate Alkalinity	mg/L	NS	**180**	**115**	**119**	**120**	**109**	**119**	**116**	**132**	**114**	**112**	**113**	**113**	**120**	**109**	**110**	**120**	**121**
Bromide	mg/L	NS	0.0860 J	<0.03	<0.03	**0.168**	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0680 J	<0.03	<0.03	<0.03	**0.104**
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<5	<5	<5	<5	<5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3	<3	<3.0
Chloride[a]	mg/L	250	**23.4**	**26.3**	**40.4**	**38.1**	**23.2**	**23.6**	**27.7**	**31.0**	**23.6**	**23.8**	**23.8**	**23.1**	**34.2**	**22.9**	**28.4**	**22.2**	**24.3**
Sulfate[a]	mg/L	250	**4.11**	**3.68**	**2.69**	**2.9**	**4.30**	**4.41**	**3.44**	**2.73**	**4.61**	**4.18**	**4.42**	**3.93**	**3.72**	**4.55**	**4.17**	**4.51**	**4.05**
Total Dissolved Solids (TDS)[a]	mg/L	500	**212**	**200**	**236**	**248**	**190**	**234**	**226**	**256**	**214**	**184**	**158**	**228**	**244**	**330**	**180**	**172**	**188**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	**2.14**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	NA	7.01 H	NA	7.37 H	7.36 H	7.75 H	7.23 H	7.42 H	7.21 H	7.24 H	7.57 H	7.54 H	7.13 H	7.47 H	7.45 H	6.95 H	7.78 H
pH (field)	SI	6.5 - 8.5	**6.45**	**6.53**	**5.89**	**6.42**	NA	**6.38**	**6.80**	NA	**5.60**	**6.09**	**6.91**	**7.32**	**6.11**	**7.01**	**6.62**	**7.07**	**7.33**
Sulfides																			
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Sulfide	mg/L	NS	<1	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Volatile Organic Compounds																			
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions																			
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.017	<0.085	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0192	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	**0.0206**	<0.008	<0.008	**0.0205**	**0.0204**	<0.008	**0.0365**	<0.025	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.012	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.025
Stable Isotopes																			
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units		Sample ID	Sample Location	Sample Interval (ft)	Sample Date	Sampler
			019-995	WW #12	485'	1/26/23	ERM
						3/30/23	ERM
						4/27/23	ERM
						5/22/23	ERM
						6/16/23	ERM
						8/22/23	ERM
						10/25/23	ERM
						11/28/23	ERM
						12/14/23	ERM
						1/31/24	ERM
						2/20/24	ERM
						3/28/24	ERM
						4/23/24	ERM
						5/22/24	ERM
						6/18/24	ERM
						9/25/24	ERM
			Industrial Water Wells				
Total Metals		**RECAP GWSS**					
Arsenic	mg/L	0.01	0.000762 J	<0.0004	0.000739 J	0.000497 J	<0.0004
Barium	mg/L	2	**0.214**	**0.234**	**0.242**	**0.207**	**0.205**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Calcium	mg/L	NS	**26.4**	**25.3**	**27.7**	**24.8**	**23.0**
Chromium	mg/L	0.1	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Iron[a]	mg/L	0.3	**0.821**	**4.76**	**3.42**	**2.11**	**4.88**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**8.02**	**7.87**	**8.14**	**7.47**	**7.51**
Manganese[a]	mg/L	0.05	**0.388**	**0.403**	**0.416**	**0.403**	**0.375**
Mercury	mg/L	0.002	<0.00003	0.0000310 J	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	NA	NA	**0.00531**	<0.0006	0.000820 J
Potassium	mg/L	NS	**3.00**	**2.60**	**2.79**	**2.61**	**2.53**
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Sodium	mg/L	NS	**29.9**	**30.3**	**32.2**	**30.5**	**25.0**
Strontium	mg/L	NS	**0.241**	**0.221**	**0.244**	**0.223**	**0.220**
Vanadium	mg/L	0.026	NA	NA	0.00299 J	<0.0006	0.00370 J
Zinc	mg/L	1.1	**0.00426**	<0.002	0.00276 J	<0.002	<0.002
Anions/Water Quality Parameters							
Bicarbonate Alkalinity	mg/L	NS	**258**	**122**	**124**	**128**	**194**
Bromide	mg/L	NS	0.0931 J	0.0782 J	<0.03	**0.164**	<0.03
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<5	<5
Chloride[a]	mg/L	250	**28.7**	**36.3**	**37.5**	**34.1**	**23.4**
Sulfate[a]	mg/L	250	**3.63**	**2.80**	**2.12**	**2.53**	**3.57**
Total Dissolved Solids (TDS)[a]	mg/L	500	**226**	**240**	**202**	**222**	**194**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	**3.84**
pH[a]	SI	6.5 - 8.5	NA	6.94 H	NA	7.55 H	7.30 H
pH (field)	SI	6.5 - 8.5	**6.35**	**6.53**	**5.64**	**6.18**	NA
Sulfides							
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	NS	<1	<1.7	<1.7	<1.7	<1.7
Volatile Organic Compounds							
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions							
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	<0.004
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	<0.003
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.009	<0.009
Stable Isotopes							
δD	‰	NS	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA

Constituent	Units		1/31/24	2/20/24	3/28/24	4/23/24	5/22/24	6/18/24	9/25/24
			ERM	ERM	ERM	ERM	ERM	ERM	ERM
Total Metals		**RECAP GWSS**							
Arsenic	mg/L	0.01	0.000782 J	0.000756 J	0.000900 J	0.000715 J	0.000506 J	0.000416 J	0.000501 J
Barium	mg/L	2	**0.186**	**0.222**	**0.195**	**0.224**	**0.219**	**0.196**	**0.212**
Cadmium	mg/L	0.005	<0.0002	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS	**20.4**	**25.2**	**23.4**	**25.9**	**23.5**	**23.7**	**23.5**
Chromium	mg/L	0.1	0.000513 J	<0.0004	0.00196 J	0.000420 J	<0.0004	0.000409 J	0.000859 J
Iron[a]	mg/L	0.3	**1.26**	**1.04**	**0.907**	**2.88**	**1.17**	**2.25**	**2.14**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**6.41**	**7.96**	**7.23**	**8.01**	**7.07**	**7.42**	**7.07**
Manganese[a]	mg/L	0.05	**0.328**	**0.366**	**0.235**	**0.399**	**0.350**	**0.422**	**0.371**
Mercury	mg/L	0.002	<0.00003	0.0000310 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	<0.0006	<0.0006	0.000682 J	<0.0006	<0.0006	<0.0006	<0.0006
Potassium	mg/L	NS	**2.22**	**2.67**	**2.51**	**2.69**	**2.42**	**2.46**	**2.44**
Selenium	mg/L	0.05	<0.0011	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18	<0.0002	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS	**22.3**	**29.3**	**26.2**	**26.3**	**25.6**	**25.6**	**24.6**
Strontium	mg/L	NS	**0.184**	**0.235**	**0.203**	**0.224**	**0.208**	**0.202**	**0.223**
Vanadium	mg/L	0.026	0.00220 J	0.00308 J	0.00474 J	<0.0006	<0.0006	<0.0006	<0.0006
Zinc	mg/L	1.1	**0.00461**	**0.00932**	**0.00606**	**0.00583**	**0.00532**	0.00374 J	<0.002
Anions/Water Quality Parameters									
Bicarbonate Alkalinity	mg/L	NS	**117**	**119**	**110**	**119**	**131**	**130**	**126**
Bromide	mg/L	NS	<0.03	0.0655 J	<0.03	<0.03	<0.03	<0.03	**0.103**
Carbonate Alkalinity	mg/L	NS	<3.5	<3.5	<3.5	<3	<3	<3	<3
Chloride[a]	mg/L	250	**23.0**	**27.6**	**23.0**	**23.2**	**26.0**	**22.4**	**24.6**
Sulfate[a]	mg/L	250	**3.63**	**2.50**	**4.25**	**4.26**	**4.04**	**3.61**	**3.96**
Total Dissolved Solids (TDS)[a]	mg/L	500	**224**	**220**	**164**	**192**	**180**	**164**	**160**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	7.74 H	7.34 H	7.57 H	7.51 H	6.91 H	7.07 H	7.77 H
pH (field)	SI	6.5 - 8.5	**6.98**	**6.32**	**7.36**	**6.14**	**7.17**	NA	NA
Sulfides									
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	NS	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Volatile Organic Compounds									
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions									
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.025	<0.025	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3	**0.0746**	<0.008	<0.008	0.0535 J	<0.025	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.025	<0.025	<0.025	<0.025
Stable Isotopes									
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units		019-1055 WW #19 520' 1/26/23 ERM	3/30/23 ERM	4/27/23 ERM	5/18/23 ERM	6/16/23 ERM	7/17/23 ERM	8/22/23 ERM	9/20/23 ERM	10/25/23 ERM	11/28/23 ERM	12/14/23 ERM	1/31/24 ERM	2/20/24 ERM	4/23/24 ERM	5/22/24 ERM	6/18/24 ERM	7/24/24 ERM	8/21/24 ERM	9/24/24 ERM	019-1603 WW #40 520' 3/30/23 ERM	5/18/23 ERM	6/16/23 ERM	9/19/23 ERM	12/14/23 ERM	1/31/24 ERM	3/28/24 ERM	5/23/24 ERM
			Industrial Water Wells																			Industrial Water Wells							
Total Metals		RECAP GWSS																											
Arsenic	mg/L	0.01	0.000419 J	<0.0004	0.000461 J	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.000668 J	0.000616 J	0.000661 J	0.000731 J	<0.0004	0.000483 J	<0.0004	<0.0004	0.000412 J	<0.0004	<0.0004	0.000974 J	**0.0044**	0.000466 J	<0.0004	**0.00215**	0.000561 J	0.00194 J	<0.0004
Barium	mg/L	2	**0.265**	**0.263**	**0.242**	**0.256**	**0.207**	**0.262**	**0.229**	**0.275**	**0.259**	**0.241**	**0.258**	**0.269**	**0.314**	**0.236**	**0.253**	**0.246**	**0.239**	**0.243**	**0.258**	**0.258**	**0.178**	**0.136**	**0.173**	**0.389**	**0.193**	**0.391**	**0.191**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	<0.0002	<0.0002002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	NS	**28.7**	**27.5**	**24.7**	**25.9**	**22.6**	**24.7**	**24.2**	**30.1**	**26.8**	**22.3**	**25.7**	**25.7**	**29.4**	**26.2**	**26.4**	**25.1**	**26.7**	**24**	**26.2**	**26.9**	**56**	**22.4**	**19.7**	**26.5**	**20.4**	**27.2**	**24.4**
Chromium	mg/L	0.1	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.000535 J	<0.0004	<0.0004	0.00113 J	0.00105 J	0.000638 J	<0.0004	0.000408 J	0.000440 J	0.000429 J	0.000613 J	0.000432 J	0.000671 J	<0.0004	0.000825 J	0.000415 J	0.000721 J	0.00123 J	0.000496 J	0.00134 J	<0.0004
Iron[a]	mg/L	0.3	**3.81**	**3.96**	**3.48**	**3.42**	**4.24**	**3.72**	**3.29**	**3.83**	**3.68**	**7.61**	**3.63**	**3.58**	**4.11**	**2.81**	**3.46**	**3.57**	**3.4**	**3.22**	**3.68**	**12.4**	**0.69**	**4.39**	**3.45**	**68.1**	**1.69**	**44.8**	**1.38**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000831 J	<0.0006	<0.0006	<0.0006	0.000702 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**8.66**	**8.42**	**7.32**	**7.78**	**7.32**	**7.45**	**7.46**	**9.04**	**8.31**	**7.24**	**8.06**	**7.98**	**9.12**	**8.06**	**7.94**	**7.87**	**7.92**	**7.26**	**7.78**	**8.33**	**6.58**	**7.37**	**6.34**	**7.76**	**6.48**	**8.35**	**7.41**
Manganese[a]	mg/L	0.05	**0.420**	**0.400**	**0.353**	**0.379**	**0.359**	**0.369**	**0.344**	**0.432**	**0.392**	**0.339**	**0.388**	**0.363**	**0.432**	**0.390**	**0.382**	**0.383**	**0.370**	**0.334**	**0.375**	**0.506**	**0.348**	**0.491**	**0.297**	**0.728**	**0.330**	**0.492**	**0.465**
Mercury	mg/L	0.002	<0.00003	0.0000300 J	<0.00003	<0.00003	<0.00003	0.0000570 J	<0.00003	<0.00003	<0.00003	0.0000480 J	0.0000690 J	<0.00003	0.0000320 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.0000720 J	0.0000400 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	NA	NA	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00146 J	<0.0006	<0.0006	<0.0006	0.000639 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	NA	**0.00202**	0.000750 J	0.000615 J	0.00133 J	<0.0006	**0.0032**	0.000718 J
Potassium	mg/L	NS	**3.10**	**2.69**	**2.54**	**2.74**	**2.48**	**2.59**	**2.54**	**3.29**	**2.95**	**2.31**	**2.75**	**2.63**	**3.06**	**2.79**	**2.65**	**2.60**	**2.80**	**2.47**	**2.74**	**2.81**	**2.61**	**2.43**	**3.62**	**2.65**	**2.35**	**2.60**	**2.45**
Selenium	mg/L	0.05	0.00114 J	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	NS	**34.4**	**32.0**	**28.5**	**29.6**	**24.8**	**29.0**	**28.3**	**35.1**	**35.6**	**23.9**	**32.2**	**30.7**	**35.0**	**31.8**	**30.6**	**30.9**	**32.3**	**28.5**	**30.5**	**32.1**	**92.9**	**24.0**	**52.1**	**25.7**	**23.2**	**26.8**	**26.6**
Strontium	mg/L	NS	**0.262**	**0.238**	**0.225**	**0.24**	**0.215**	**0.229**	**0.215**	**0.266**	**0.249**	**0.196**	**0.23**	**0.233**	**0.288**	**0.238**	**0.232**	**0.224**	**0.235**	**0.224**	**0.235**	**0.235**	**0.397**	**0.210**	**0.177**	**0.237**	**0.181**	**0.247**	**0.210**
Vanadium	mg/L	0.026	NA	NA	0.00320 J	<0.0006	0.00311 J	<0.0006	<0.000698 J	<0.0006	**0.0136**	0.00209 J	**0.00629**	0.00246 J	0.000831 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	NA	**0.0136**	0.00320 J	<0.0006	<0.0006	0.00202 J	0.00224 J	<0.0006
Zinc	mg/L	1.1	**0.00993**	**0.0107**	**0.0163**	**0.00906**	**0.00514**	**0.0231**	**0.0260**	**0.0241**	**0.0318**	**0.0275**	**0.00595**	**0.00892**	**0.00589**	**0.0120**	**0.00717**	**0.00800**	**0.01230**	**0.0078**	**0.0043**	**0.0845**	**0.0231**	**0.0200**	**1.47**	**0.0362**	**0.0343**	**0.0720**	**0.0633**
Anions/Water Quality Parameters																													
Bicarbonate Alkalinity	mg/L	NS	**250**	**123**	**119**	**118**	**108**	**135**	**119**	**121**	**120**	**113**	**118**	**120**	**122**	**119**	**116**	**134**	**126**	**149**	**109**	**125**	**183**	**113**	**144**	**114**	**112**	**118**	**121**
Bromide	mg/L	NS	0.0982 J	<0.03	<0.03	**0.167**	<0.03	<0.03	<0.03	<0.03	<0.03	0.0700 J	<0.03	0.0592 J	0.0745 J	<0.03	<0.03	**0.118**	**0.12**	<0.03	**0.116**	**0.101**	<0.03	**0.143**	<0.03	<0.03	<0.03	<0.0300	**0.115**
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<5	<5	<5	<5	<5	<3.5	<3.5	<3.5	<3.5	<3.5	<3	<3	<3	<3	<3	<3	<5	<5	<5	<5	<3.5	<3.5	<3.5	<3
Chloride[a]	mg/L	250	**38.3**	**36.8**	**40.6**	**37.6**	**23.6**	**37.4**	**36.4**	**37.8**	**39.6**	**24.8**	**39.8**	**38.3**	**38.9**	**33.2**	**38.1**	**38.2**	**37.7**	**45.2**	**39.9**	**36.6**	**115**	**23.0**	**27.0**	**24.4**	**23.3**	**23.3**	**28.0**
Sulfate[a]	mg/L	250	**3.51**	**3.39**	**3.55**	**3.85**	**4.21**	**3.77**	**3.64**	**3.45**	**4.00**	**4.02**	**4.44**	**3.58**	**3.72**	**3.97**	**3.66**	**3.69**	**3.43**	<0.2	**3.93**	0.426 J	**14.5**	**3.00**	**2.87**	**3.16**	**3.78**	**6.82**	**3.96**
Total Dissolved Solids (TDS)[a]	mg/L	500	**244**	**230**	**220**	**274**	**176**	**272**	**238**	**244**	**180**	**180**	**236**	**266**	**246**	**208**	**204**	**192**	**206**	**218**	**208**	**206**	**446**	**192**	**224**	**120**	**226**	**202**	**204**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	**1.11**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	NA	7.16 H	NA	7.14 H	7.38 H	7.70 H	7.21 H	7.23 H	7.22 H	7.16 H	7.52 H	7.47 H	7.12 H	7.54 H	7.10 H	7.15 H	7.25 H	7.44 H	7.74 H	7.23 H	8.02 H	7.45 H	7.38 H	7.66 H	7.93 H	7.59 H	7.41 H
pH (field)	SI	6.5 - 8.5	**6.82**	**6.53**	**5.84**	**6.46**	NA	**6.25**	**7.03**	NA	**5.73**	**5.85**	**6.89**	**6.83**	**6.32**	**5.97**	**7.06**	NA	NA	**6.72**	NA	**6.68**	**6.65**	NA	**6.81**	**6.99**	**7.61**	**7.30**	**7.28**
Sulfides																													
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.44**	<0.5	<0.5	**1.44**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	NS	<1	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1.2	1.36 J	<1.2	<1.2	1.36 J	<1.7	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2
Volatile Organic Compounds																													
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions																													
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.017	<0.085	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.019	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0670 J
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.008	<0.008	<0.008	<0.008	**0.0191**	<0.008	<0.008	**0.441**
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.012	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0447 J
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	**0.175**
Stable Isotopes																													
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample ID			**019-17636Z**																
Sample Location			**Cottages Well**																
Sample Interval (ft)			740'																
Sample Date			3/9/23	4/27/23	5/18/23	6/16/23	7/17/23	8/22/23	9/20/23	10/25/23	11/28/23	12/14/23	1/31/24	2/20/24	3/28/24	4/23/24	5/22/24	7/25/24	8/21/24	9/25/24
Sampler			ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**		**Industrial Water Wells**																
Total Metals		**RECAP GWSS**																	
Arsenic	mg/L	0.01	<0.0004	0.000464 J	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.000502 J	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Barium	mg/L	2	**0.187**	**0.187**	**0.171**	**0.172**	**0.187**	**0.160**	**0.181**	**0.178**	**0.177**	**0.188**	**0.198**	**0.212**	**0.181**	**0.211**	**0.179**	**0.183**	**0.166**	**0.166**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS	**13.7**	**14.5**	**14.5**	**14.4**	**13.4**	**12.2**	**14.4**	**13.2**	**13.5**	**13.8**	**14.4**	**14.6**	**14**	**16.2**	**13.2**	**13.7**	**12.4**	**11.6**
Chromium	mg/L	0.1	<0.0004	<0.0004	0.00103 J	0.000522 J	**0.00744**	0.000562 J	<0.0004	<0.0004	<0.0004	0.000404 J	**0.00634**	<0.0004	0.000849 J	<0.0004	**0.00489**	**0.00635**	0.000415 J	0.00116 J
Iron[(a)]	mg/L	0.3	**5.57**	**2.48**	**4.76**	**6.04**	**2.34**	**1.46**	**2.35**	**3.22**	**3.49**	**3.32**	**3.46**	**2.97**	**5.99**	**9.13**	**2.52**	**2.38**	**1.48**	**5.96**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**3.69**	**3.97**	**4.05**	**3.96**	**3.72**	**3.38**	**4.05**	**3.70**	**3.98**	**3.85**	**3.96**	**3.98**	**3.84**	**4.53**	**3.59**	**3.33**	**3.32**	**2.98**
Manganese[(a)]	mg/L	0.05	**0.193**	**0.192**	**0.224**	**0.211**	**0.190**	**0.156**	**0.183**	**0.178**	**0.185**	**0.182**	**0.192**	**0.194**	**0.220**	**0.259**	**0.179**	**0.182**	**0.152**	**0.211**
Mercury	mg/L	0.002	<0.00003	<0.00003	0.000117 J	<0.00003	0.0000510 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	NA	**0.00330**	**0.00408**	**0.00304**	**0.00239**	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	**0.00221**	<0.0006	0.00135 J	0.00185 J	**0.00437**	0.000634 J	<0.0006	**0.00306**
Potassium	mg/L	NS	**2.03**	**2.24**	**2.31**	**2.20**	**2.12**	**2.03**	**2.38**	**2.18**	**2.11**	**2.18**	**2.19**	**2.22**	**2.15**	**2.54**	**2.04**	**1.87**	**1.92**	**1.70**
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS	**57.7**	**65.2**	**71.2**	**66.2**	**71.2**	**72.1**	**77.9**	**73.5**	**75.2**	**72.5**	**77.8**	**79.5**	**67.3**	**76.8**	**68.8**	**73.3**	**69.1**	**57.0**
Strontium	mg/L	NS	**0.160**	**0.167**	**0.171**	**0.179**	**0.157**	**0.141**	**0.166**	**0.165**	**0.156**	**0.161**	**0.165**	**0.175**	**0.162**	**0.193**	**0.153**	**0.165**	**0.148**	**0.150**
Vanadium	mg/L	0.026	NA	0.00270 J	**0.0006**	0.00295 J	<0.0006	0.000689 J	<0.0006	**0.0139**	0.00204 J	<0.0006	0.00312 J	0.00303 J	**0.00562**	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Zinc	mg/L	1.1	**0.255**	**0.320**	**0.202**	**0.203**	**0.798**	**0.0237**	**0.0981**	**0.166**	**0.170**	**0.151**	**1.65**	**0.123**	**0.202**	**0.276**	**0.421**	**0.066**	**0.0385**	**0.0670**
Anions/Water Quality Parameters																				
Bicarbonate Alkalinity	mg/L	NS	**139**	**134**	**139**	**132**	**153**	**153**	**141**	**146**	**142**	**144**	**143**	**143**	**144**	**138**	**145**	**153**	**172**	**155**
Bromide	mg/L	NS	**0.102**	**0.105**	**0.19**	**0.179**	**0.156**	**0.118**	**0.106**	**0.122**	**0.126**	**0.152**	**0.215**	**0.108**	0.0891 J	0.0807 J	**0.160**	**0.150**	<0.03	**0.140**
Carbonate Alkalinity	mg/L	NS	<5	<5	<5	<5	<5	<5	<5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3	<3	<3	<3	<3
Chloride[(a)]	mg/L	250	**52.8**	**55.6**	**52.8**	**52.6**	**59.6**	**57.5**	**54.5**	**56.9**	**57.4**	**56.8**	**56.7**	**56.4**	**51.2**	**49.9**	**53.8**	**56.0**	**67.3**	**56.2**
Sulfate[(a)]	mg/L	250	<0.2	0.286 J	**0.574**	**0.608**	0.277 J	0.462 J	0.300 J	0.491 J	0.297 J	0.322 J	0.317 J	0.304 J	0.306 J	0.212 J	**0.536**	0.414 J	<0.2	<0.2
Total Dissolved Solids (TDS)[(a)]	mg/L	500	**274**	**250**	**284**	**244**	**308**	**270**	**270**	**236**	**268**	**200**	**294**	**304**	**268**	**234**	**228**	**242**	**230**	**224**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	**1.38**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[(a)]	SI	6.5 - 8.5	NA	NA	7.63 H	7.30 H	7.91 H	7.32 H	7.44 H	7.63 H	7.29 H	7.49 H	7.59 H	7.46 H	7.77 H	7.50 H	7.07 H	7.86 H	7.61 H	7.92 H
pH (field)	SI	6.5 - 8.5	**7.67**	**5.73**	**7.06**	NA	**6.28**	**7.05**	NA	**6.05**	**6.63**	**6.94**	**6.47**	**6.53**	**7.06**	**6.14**	**7.06**	NA	**7.35**	NA
Sulfides																				
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.28**	<0.5
Sulfide	mg/L	NS	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	1.20 J	<1.2
Volatile Organic Compounds																				
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions																				
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.017	<0.085	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333	<0.0333	<0.0333
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.019	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333	<0.0333	<0.0333
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	0.0433 J	<0.025	<0.025	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15	**0.0132**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.012	<0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0333	<0.0333	<0.0333
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025
Stable Isotopes																				
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[(a)] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units	Sample ID	MW-1																				
		Sample Location	MW-1-200								MW-1-500							MW-1-700					
		Sample Interval (ft)	162-172'								503-513'							694-704'					
		Sample Date	12/28/23	3/27/24	4/22/24	5/21/24	6/19/24	7/23/24	8/20/24	9/26/24	3/27/24	4/22/24	5/22/24	6/18/24	7/23/24	8/20/24	9/23/24	3/26/24	4/22/24	5/22/24	6/19/24	7/23/24	8/20/24	9/23/24
		Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**		**Monitoring Wells**																				
Total Metals		**RECAP GWSS**																					
Arsenic	mg/L	0.01	**0.00881**	**0.0137**	**0.0146**	**0.0123**	**0.0145**	**0.012**	**0.0102**	**0.0125**	**0.00493**	**0.00431**	<0.0004	0.00174 J	0.00106 J	0.000455 J	0.000655 J	0.00134 J	0.00118 J	0.000469 J	0.000955 J	0.00117 J	0.000525 J	0.000627 J
Barium	mg/L	2	**0.231**	**0.187**	**0.245**	**0.214**	**0.267**	**0.229**	**0.223**	**0.276**	**0.108**	**0.128**	**0.327**	**0.246**	**0.223**	**0.260**	**0.246**	**0.0616**	**0.0716**	**0.0973**	**0.111**	**0.0768**	**0.104**	**0.0950**
Cadmium	mg/L	0.005	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS	**22.6**	**16.9**	**21.4**	**18.0**	**22.3**	**18.4**	**15.6**	**21.7**	**18.0**	**20.2**	**8.08**	**14.4**	**12.9**	**8.65**	**11.4**	**4.60**	**4.84**	**2.60**	**3.41**	**3.49**	**2.62**	**2.59**
Chromium	mg/L	0.1	0.00178 J	<0.0004	0.000540 J	<0.0004	0.000457 J	0.000684 J	<0.0004	0.000925 J	0.00257 J	<0.0004	0.00106 J	0.000503 J	0.000955 J	0.000710 J	0.000826 J	**0.015**	0.000471 J	0.000437 J	<0.0004	0.000656 J	0.000443 J	0.00105 J
Iron[a]	mg/L	0.3	**9.33**	0.179 J	**0.360**	**0.248**	**0.221**	**0.373**	**0.243**	**0.242**	**1.89**	**1.91**	**2.41**	**0.733**	**2.33**	**1.33**	**1.27**	**0.530**	**0.574**	**1.58**	**1.92**	**0.885**	**1.33**	**1.00**
Lead	mg/L	0.015	0.00163 J	<0.0006	0.00193 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00150 J	<0.0006	**0.00728**	**0.00614**	**0.00517**	0.000660 J
Magnesium	mg/L	NS	**8.82**	**7.74**	**9.54**	**8.46**	**10.00**	**8.79**	**7.98**	**9.91**	**4.65**	**5.28**	**3.11**	**4.52**	**4.27**	**3.26**	**3.85**	**0.215**	**0.387**	**0.644**	**0.629**	**0.526**	**0.645**	**0.572**
Manganese[a]	mg/L	0.05	**0.176**	**0.0321**	**0.0526**	**0.0477**	**0.0735**	**0.0575**	**0.0494**	**0.0685**	**0.0774**	**0.0725**	**0.0368**	**0.0506**	**0.0467**	**0.0304**	**0.0296**	**0.00804**	**0.00788**	**0.01720**	**0.01720**	**0.01370**	**0.01330**	**0.01190**
Mercury	mg/L	0.002	<0.00003	**0.000293**	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	**0.0065**	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00153 J	<0.0006	0.000676 J	<0.0006	<0.0006	<0.0006	<0.0006	**0.00838**	<0.0006	<0.0006	<0.0006	0.000776 J	<0.0006	<0.0006
Potassium	mg/L	NS	**2.33**	**2.81**	**2.93**	**2.30**	**2.31**	**2.21**	**1.86**	**2.21**	**2.93**	**3.28**	**3.76**	**3.65**	**3.59**	**3.78**	**4.36**	**2.79**	**2.98**	**1.95**	**2.18**	**2.38**	**1.98**	**2.26**
Selenium	mg/L	0.05	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS	**91.9**	**95.4**	**109**	**90.2**	**103.0**	**89.7**	**82.9**	**98.1**	**67.0**	**69.9**	**44.6**	**51.5**	**46.1**	**42.3**	**44.4**	**175**	**194**	**165**	**195**	**187**	**173**	**179**
Strontium	mg/L	NS	**0.225**	**0.224**	**0.274**	**0.221**	**0.259**	**0.241**	**0.225**	**0.273**	**0.218**	**0.259**	**0.248**	**0.263**	**0.249**	**0.232**	**0.243**	**0.0652**	**0.0770**	**0.102**	**0.111**	**0.093**	**0.0989**	**0.0919**
Vanadium	mg/L	0.026	0.00335 J	0.00163 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00206 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00368 J	0.00306 J	<0.0006	0.000855 J	0.000834 J	<0.0006	<0.0006
Zinc	mg/L	1.1	**0.00801**	0.00272 J	**0.00675**	**0.00688**	**0.00422**	**0.0131**	<0.002	<0.002	**0.00577**	**0.00489**	**0.00402**	**0.00613**	**0.00478**	**0.0117**	0.00379 J	0.00292 J	**0.00653**	**0.00418**	0.00399 J	**0.00907**	**0.00394**	0.00310 J
Anions/Water Quality Parameters																								
Bicarbonate Alkalinity	mg/L	NS	**268**	**250**	**249**	**250**	**273**	**251**	**301**	**280**	**208**	**197**	**98.2**	**139**	**134**	**145**	**118**	**238**	**239**	**256**	**243**	**226**	**268**	**245**
Bromide	mg/L	NS	<0.03	<0.03	<0.03	**0.125**	**0.126**	**0.124**	<0.03	**0.112**	<0.03	<0.03	**0.131**	**0.118**	**0.121**	<0.03	**0.106**	<0.03	<0.03	**0.199**	**0.168**	**0.164**	<0.03	**0.154**
Carbonate Alkalinity	mg/L	NS	<3.5	**6.20**	**13.6**	**12.2**	**5.80**	**12.4**	**16.0**	<3	<3.5	<3	4.80 J	**6.20**	**12.00**	5 J	**7.40**	**56.0**	**48.6**	**37.4**	**38.2**	**61.8**	**58.0**	**50.2**
Chloride[a]	mg/L	250	**41.0**	**40.7**	**34.4**	**33.7**	**34.7**	**32.6**	**38.4**	**35.4**	**24.8**	**22.1**	**26.2**	**23.6**	**23.7**	**30.3**	**24.2**	**105**	**99.9**	**104**	**103**	**105**	**131**	**105**
Sulfate[a]	mg/L	250	**4.89**	**0.871**	0.487 J	**0.710**	**0.766**	0.458 J	<0.2	0.364 J	**5.65**	**2.73**	0.425 J	**1.01**	0.457 J	<0.2	0.387 J	**13.9**	**11.2**	**0.538**	**2.67**	**1.87**	<0.2	0.395 J
Total Dissolved Solids (TDS)[a]	mg/L	500	**272**	**328**	**310**	**286**	**286**	**256**	**272**	**352**	**296**	**264**	**152**	**230**	**158**	**166**	**148**	**494**	**444**	**468**	432 H	**396**	**464**	**442**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	8.29 H	8.40 H	8.53 H	8.32 H	8.15 H	8.40 H	8.27 H	8.38 H	8.17 H	8.21 H	8.68 H	8.42 H	8.72 H	**8.61**	8.59 H	9.12 H	8.98 H	9.04 H	8.91 H	9.27 H	**9.03**	9.14 H
pH (field)	SI	6.5 - 8.5	**8.38**	**8.07**	**8.95**	**8.47**	**8.17**	**8.42**	**8.54**	**7.46**	**7.72**	**8.47**	**8.25**	**8.38**	**8.61**	**8.60**	**7.93**	**9.29**	**9.36**	**9.00**	**8.93**	**8.88**	**9.13**	**8.28**
Sulfides																								
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.34**	NA	<0.5	<0.5	<0.5	<0.5	<0.5	**1.49**	**1.10**	<0.5	<0.5	<0.5	<0.5	<0.5	**1.28**	<0.5
Sulfide	mg/L	NS	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	**2.20**	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	**1.40**	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	1.20 J	<1.2
Volatile Organic Compounds																								
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0050	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0050	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.0011**	<0.0002	**0.007**	<0.0002	0.00034 J	<0.0002	<0.0002	**0.0010**	<0.0050	**0.0026**	<0.0002	0.00039 J
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0050	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0050	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003		<0.0003	<0.0003	<0.0003
TPH Fractions																								
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.0109 J	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.0102 J
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.00769 J	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.00599
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.10	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	**0.00282**	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.025	<0.025	<0.025	0.0377 J	<0.025	<0.025	<0.008	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	**0.0138**	<0.025	<0.025	0.0345 J	0.0355 J	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.0333	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15	<0.009	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Stable Isotopes																								
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units	Sample ID	MW-2																				
		Sample Location	MW-2-200							MW-2-500							MW-2-700						
		Sample Interval (ft)	230-240'							502-512'							680-690'						
		Sample Date	1/31/24	3/26/24	4/23/24	5/24/24	6/18/24	7/24/24	8/20/24	9/24/24	3/26/24	4/22/24	5/22/24	6/19/24	7/25/24	8/20/24	9/24/24	3/26/24	4/23/24	5/22/24	6/19/24	7/25/24	8/21/24	9/23/24
		Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
			Monitoring Wells																					
Total Metals		**RECAP GWSS**																						
Arsenic	mg/L	0.01	0.000423 J	0.000644 J	0.000420 J	0.000524 J	0.00186 J	0.00125 J	0.000485 J	0.00141 J	**0.00396**	**0.00351**	**0.00388**	0.00174 J	0.000854 J	0.000601 J	0.000731 J	0.00145 J	**0.00229**	**0.00209**	**0.00233**	0.00149 J	0.00569 J	0.000996 J
Barium	mg/L	2	**0.0759**	**0.0571**	**0.0490**	**0.0400**	**0.0593**	**0.0512**	**0.0316**	**0.0703**	**0.143**	**0.138**	**0.164**	**0.126**	**0.0813**	**0.0835**	**0.0718**	**0.0507**	**0.0346**	**0.0477**	**0.0527**	**0.00643**	**0.00925**	**0.00889**
Cadmium	mg/L	0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS	**14.0**	**10.7**	**6.73**	**4.39**	**5.48**	**5.14**	**2.74**	**6.38**	**19.3**	**20.0**	**24.2**	**8.57**	**2.64**	**3.75**	**3.05**	**32.4**	**22.4**	**24.1**	**21.7**	**1.31**	**0.80**	**1.68**
Chromium	mg/L	0.1	0000546 J	<0.0004	0.000561 J	0.000406 J	0.000554 J	<0.0004	0.000560 J	0.000654 J	**0.00454**	0.000545 J	0.000791 J	0.000483 J	0.000604 J	**0.000678**	0.00119 J	0.00399 J	0.000594 J	0.00324 J	0.000609 J	0.00134 J	0.0007 J	0.00149 J
Iron[a]	mg/L	0.3	0.0782 J	**2.04**	0.175 J	0.0774 J	**0.236**	0.0168 J	0.0361 J	0.0277 J	**3.65**	**0.530**	**0.332**	0.0986 J	**0.747**	**0.0426**	**0.998**	**0.272**	0.0258 J	**0.290**	**0.315**	**0.877**	**0.530**	**0.560**
Lead	mg/L	0.015	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS	**0.549**	**0.102**	0.140 J	0.0667 J	**0.400**	**0.575**	**0.034**	**1.19**	**4.06**	**4.12**	**5.18**	**1.62**	**0.308**	**0.822**	**0.603**	0.104 J	0.199 J	**0.245**	**0.385**	0.0747 J	0.0342 J	0.0608 J
Manganese[a]	mg/L	0.05	**0.00714**	**0.0134**	0.00112 J	0.00106 J	0.00494 J	0.00197 J	0.00139 J	**0.00531**	**0.0912**	**0.0802**	**0.0944**	**0.0174**	**0.0109**	**0.0023**	**0.0113**	0.00404 J	<0.0007	**0.0298**	**0.00912**	**0.00935**	0.00355 J	0.00404 J
Mercury	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	0.000895 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	**0.00294**	<0.0006	<0.0006	0.000681 J	0.00122 J	<0.0006	0.000923 J	**0.00274**	<0.0006	**0.00248**	0.00154 J	**0.00467**	**0.00339**	**0.00348**
Potassium	mg/L	NS	**6.58**	**6.55**	**5.95**	**5.49**	**4.97**	**4.86**	**4.28**	**3.99**	**3.21**	**3.14**	**3.50**	**65.50**	**74.20**	**56.1**	**57.9**	**7.38**	**6.34**	**5.20**	**4.54**	**4.46**	**4.38**	**5.82**
Selenium	mg/L	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS	**67.9**	**63.8**	**66.8**	**70.8**	**71.0**	**65.2**	**60.9**	**61.4**	**70.0**	**59.9**	**70.0**	**89.6**	**80.8**	**71.0**	**70.6**	**168**	**148**	**166**	**214**	**177**	**152**	**232**
Strontium	mg/L	NS	**0.250**	**0.328**	**0.319**	**0.224**	**0.209**	**0.184**	**0.159**	**0.206**	**0.230**	**0.242**	**0.286**	**0.239**	**0.204**	**0.245**	**0.245**	**0.231**	**0.171**	**0.166**	**0.142**	**0.0206**	**0.0184**	**0.0246**
Vanadium	mg/L	0.026	0.000751 J	0.000810 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00106 J	<0.0006	<0.0006	<0.0006	0.000717 J	<0.0006	0.000980 J	**0.0304**	**0.0257**	**0.0176**	**0.013**	0.00126 J	<0.0006	0.000785 J
Zinc	mg/L	1.1	**0.00578**	0.00260 J	<0.002	0.00310 J	**0.0118**	**0.0046**	**0.00460**	0.00326 J	**0.00813**	<0.002	**0.00479**	**0.00659**	**0.00659**	0.00327 J	**0.00438**	0.00286 J	<0.002	**0.00573**	0.00350 J	**0.0292**	0.00208 J	0.00294 J
Anions/Water Quality Parameters																								
Bicarbonate Alkalinity	mg/L	NS	**39.0**	**14.8**	**18.0**	**21.7**	**63.3**	**65.6**	**74.3**	<3.0	**169**	**168**	**168**	**82.7**	**53**	<30	<3	<3.5	<3	**33.3**	**82.1**	**84.0**	35.0 J	**14.9**
Bromide	mg/L	NS	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	**3.32**
Carbonate Alkalinity	mg/L	NS	<3.5	**17.0**	**11.6**	**19.8**	**19.4**	**26.2**	**38.8**	**243**	<3.5	<3	3.40 J	**141**	**188**	**200**	**243**	**144**	**166**	**204**	**169**	**146**	**208**	**10.2**
Chloride[a]	mg/L	250	**36.5**	**38.4**	**34.6**	**32.8**	**30.4**	**30.7**	**32.4**	**26.9**	**36.6**	**33.4**	**34.3**	**38.5**	**37.7**	**41.3**	**37.0**	**138**	**137**	**156**	**158**	**108**	**111**	**107**
Sulfate[a]	mg/L	250	**127**	**146**	**119**	**92.2**	**73.7**	**56**	**52.0**	**30.8**	**14.4**	**4.10**	**2.17**	**5.94**	**6.54**	<0.2	**4.86**	**82.0**	**51.5**	**36.8**	**27.9**	**43.1**	**35.6**	**24.1**
Total Dissolved Solids (TDS)[a]	mg/L	500	**274**	**260**	**216**	**198**	**190**	**184**	**170**	**186**	**296**	**240**	**234**	**298**	**306**	**276**	**286**	**594**	**484**	**514**	**822**	**392**	**410**	**386**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	7.99 H	9.68 H	9.28 H	10.0 H	9.49 H	9.46 H	9.35 H	8.05 H	8.09 H	8.09 H	8.16 H	10.2 H	10.6 H	10.4 H	10.4 H	11.1 H	10.5 H	10.3 H	10.0 H	10.4 H	10.4 H	10.2 H
pH (field)	SI	6.5 - 8.5	**9.67**	**9.91**	**10.32**	**9.95**	**9.34**	**9.27**	**9.32**	**8.08**	**7.95**	**8.14**	**8.06**	**10.12**	**10.61**	**10.2**	**9.44**	**10.85**	**10.89**	**10.31**	**9.80**	**10.37**	**10.6**	**9.16**
Sulfides																								
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	**1.44**	<0.5	<0.5	<0.5	<0.5	0.552 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.49**	<0.5
Sulfide	mg/L	NS	<1.2	<1.2	<1.2	<1.2	1.36 J	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	1.4 J	<1.2
Volatile Organic Compounds																								
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.0092**	0.00079 J	0.00036 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1	0.00063 J	**0.00086**	<0.0002	**0.0011**	<0.0002	**0.0045**	0.00084 J	0.00061 J	<0.0002	<0.0002	**0.0012**	<0.0002	**0.0028**	<0.0002	0.00056 J	<0.0002	<0.0002	**0.0010**	<0.0002	**0.0021**	0.00052 J	0.00041 J
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0011 J	0.0012 J	<0.0005	0.0012 J	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	**0.0012**	**0.0012**	<0.0003	**0.0013**	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00036 J
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0023 J	0.0024 J	<0.0003	0.0025 J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00036 J
TPH Fractions																								
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	<0.01	<0.10	0.0394 J	<0.00688	<0.00688	<0.01	<0.01	<0.01	<0.10	0.0371 J	0.0115 J	0.0125 J	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.0159 J
Aliphatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.00599	<0.00599	<0.01	<0.01	<0.01	<0.10	0.0335 J	0.0114 J	0.0109 J	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.00726 J
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.025	0.0396 J	<0.025	0.0433 J	<0.025	<0.025	<0.002	<0.025	0.0319 J	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	0.0709 J	**0.197**	0.0368 J	**0.134**	<0.025	<0.025	**0.0289**	0.0567 J	0.0982 J	0.0535 J	<0.025	<0.025	<0.025	<0.008	0.0484 J	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15	<0.01	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.018	<0.018	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018
Aromatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15	<0.009	**0.00939**	0.0302 J	0.0554 J	<0.025	0.0424 J	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Stable Isotopes																								
δD	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Constituent	Units		Sample ID	MW-3																		
			Sample Location	MW-3-200							MW-3-500							MW-3-700						
			Sample Interval (ft)				228-238'				464-474'										680-690'			
			Sample Date	3/27/24	4/23/24	5/23/24	6/20/24	7/24/24	8/21/24	9/24/24	3/27/24	4/23/24	5/23/24	6/20/24	7/24/24	8/21/24	9/25/24	3/27/24	4/24/24	5/23/24	6/20/24	7/24/24	8/21/24	9/24/24
			Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
				Monitoring Wells																				
Total Metals		**RECAP GWSS**																						
Arsenic	mg/L	0.01		**0.00364**	**0.00334**	**0.00351**	**0.00384**	**0.00283**	**0.00272**	**0.00300**	0.000750 J	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.000760 J	<0.0008	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Barium	mg/L	2		**0.0225**	**0.0320**	**0.0628**	**0.0807**	**0.0614**	**0.0567**	**0.0714**	**0.215**	**0.230**	**0.215**	**0.195**	**0.149**	**0.157**	**0.173**	**2.46**	**2.31**	**2.50**	**2.50**	**2.10**	**1.77**	**2.18**
Cadmium	mg/L	0.005		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NS		**2.02**	**2.99**	**6.76**	**9.11**	**7.10**	**5.30**	**6.31**	**170**	**165**	**165**	**233**	**212**	**149**	**194**	**207**	**181**	**107**	**129**	**122**	**96.8**	**111**
Chromium	mg/L	0.1		0.00249 J	0.000974 J	0.000989 J	0.000827 J	0.000556 J	0.000832 J	0.00148 J	0.00154 J	0.000775 J	0.00190 J	0.00103 J	0.00101 J	0.000918 J	0.00187 J	0.00175 J	0.00387 J	0.00232 J	0.00164 J	0.00235 J	0.00122 J	0.00217 J
Iron[a]	mg/L	0.3		**0.506**	**1.11**	**2.67**	0.136 J	**0.447**	**0.238**	**2.90**	**1.15**	**6.25**	**2.72**	**6.92**	**2.52**	**4.06**	**1.47**	**2.21**	0.274 J	**1.54**	**0.679**	**2.65**	**0.442**	**0.815**
Lead	mg/L	0.015		<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.001	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	NS		**0.227**	0.0811 J	**0.426**	**0.590**	**0.638**	**0.431**	**0.616**	**22.0**	**23.4**	**20.4**	**24.6**	**21.5**	**19.5**	**22.1**	**36.6**	**31.7**	**28.7**	**34.1**	**23.6**	**24.9**	**24.8**
Manganese[a]	mg/L	0.05		0.00270 J	**0.00657**	**0.0198**	0.00186 J	0.00301 J	0.00170 J	**0.0177**	**0.0823**	**0.0586**	**0.0479**	**0.311**	**0.291**	**0.0729**	**0.1450**	**0.613**	**0.112**	**0.072**	**0.0642**	**0.0597**	**0.0428**	**0.0444**
Mercury	mg/L	0.002		<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073		**0.00203**	0.00117 J	0.00181 J	0.000666 J	0.000765 J	0.000633 J	0.00113 J	0.000670 J	<0.0006	0.000881 J	0.000740 J	0.000815 J	0.000639 J	<0.0006	0.00164 J	**0.00421**	0.00116 J	0.000624 J	0.00144 J	<0.0006	0.000623 J
Potassium	mg/L	NS		**62.3**	**53.1**	**48.5**	**45.7**	**53.8**	**69.1**	**68.4**	**15.1**	**20.7**	**22.5**	**15.3**	**12**	**19.4**	**26.8**	**18.7**	**26.2**	**15.2**	**18.2**	**18.3**	**14.6**	**16.0**
Selenium	mg/L	0.05		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.18		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NS		**139**	**120**	**129**	**138**	**112**	**124**	**116**	**666**	**671**	**831**	**793**	**739**	**760**	**812**	**1,320**	**1,100**	**1,250**	**1,320**	**1,190**	**1,040**	**1,130**
Strontium	mg/L	NS		**0.0947**	**0.108**	**0.173**	**0.203**	**0.176**	**0.173**	**0.205**	**4.52**	**4.41**	**5.21**	**5.29**	**4.97**	**4.95**	**5.32**	**4.31**	**3.63**	**3.16**	**3.28**	**3.14**	**2.8**	**2.96**
Vanadium	mg/L	0.026		**0.01**	0.00171 J	0.00320 J	0.000836 J	<0.0006	<0.0006	0.00110 J	0.00421 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00141 J	<0.0012	<0.0006	<0.0006	0.00114 J	<0.0006	<0.0006
Zinc	mg/L	1.1		**0.00474**	0.00294 J	**0.00675**	0.00337 J	0.00287 J	0.00264 J	**0.00696**	0.00327 J	**0.0160**	**0.0172**	**0.0251**	**0.0080**	**0.013**	**0.005**	**0.0581**	<0.004	0.00366 J	**0.00711**	**0.00553**	**0.00454**	0.00279 J
Anions/Water Quality Parameters																								
Bicarbonate Alkalinity	mg/L	NS		<3.5	**16.9**	**133**	**207**	**47.8**	**246**	**265**	**36.3**	**18.6**	**14.6**	**151**	**139**	**81.1**	**68.7**	**163**	**29.7**	**26.0**	**24.2**	**16.8**	**24.2**	**17.8**
Bromide	mg/L	NS		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	**0.255**	<0.3	**3.41**	**1.36**	**4.12**	**4.00**	**2.58**	**1.76**	**2.10**
Carbonate Alkalinity	mg/L	NS		**221**	**250**	**158**	**105**	**20.2**	**190**	**122**	<3.5	<3	<3	<3	**19.6**	<3	<3.0	<3.5	<3	<3	<3	**3.2**	<3	4.00 J
Chloride[a]	mg/L	250		**31.4**	**27.1**	**24.6**	**23.5**	**23.6**	**25.8**	**22.7**	**1,260**	**1,070**	**1,080**	**1,190**	**1,330**	**1,470**	**1,260**	**2,750**	**2,320**	**2,150**	**2,590**	**2,240**	**2,780**	**2,170**
Sulfate[a]	mg/L	250		**116**	**76.4**	**35.8**	**19.2**	**20.0**	**11.1**	**14.8**	**603**	**480**	**424**	**505**	**462**	**469**	**409**	**2.81**	**3.63**	<0.400	0.873 J	**1.25**	<0.400	<0.400
Total Dissolved Solids (TDS)[a]	mg/L	500		**552**	**488**	**420**	**382**	**338**	**420**	**438**	**2,220**	**2,280**	**2,140**	**2,080**	**1,990**	**2,380**	**1,670**	**4,320**	**4,800**	**3,160**	**2,560**	**2,500**	**3,320**	**1,840**
Total Organic Carbon (TOC)	mg/L	NS		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5		11.1 H	10.4 H	9.89 H	9.42 H	9.68 H	9.88 H	9.66 H	7.75 H	7.83 H	8.57 H	7.69 H	8.54 H	7.4 H	7.81 H	7.89 H	7.62 H	8.59 H	8.76 H	8.54 H	8.48 H	8.89 H
pH (field)	SI	6.5 - 8.5		**10.88**	**11.08**	**10.06**	**9.29**	**9.01**	**9.41**	**8.63**	**8.08**	**8.92**	**9.00**	**6.79**	**8.34**	**8.85**	**7.20**	**8.25**	**11.23**	**8.49**	**8.44**	**8.63**	**8.95**	**8.00**
Sulfides																								
Hydrogen Sulfide	mg/L	NS		<0.5	<0.5	<0.5	**1.10**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.17**	**4.12**	**1.91**	<0.5	<0.5	<0.5	<0.5	**1.10**	<0.5	<0.5	0.680 J
Sulfide	mg/L	NS		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	**2.04**	**3.88**	1.80 J	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Volatile Organic Compounds																								
Benzene	mg/L	0.005		<0.0002	<0.0002	<0.0002	0.00041 J	<0.0002	<0.0002	0.00026 J	**0.0017**	**0.0016**	**0.0015**	**0.0015**	**0.0010**	<0.01	**0.0012**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	0.7		<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	1		**0.0062**	<0.0002	**0.0011**	<0.0002	**0.0069**	<0.0002	0.00034 J	**0.010**	**0.0031**	**0.0039**	<0.0002	**0.0085**	<0.010	**0.0046**	<0.0002	<0.0002	**0.0016**	<0.0002	**0.0053**	**0.0013**	0.00076 J
m,p-Xylene	mg/L	10		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	10		<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	10		<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.015	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions																								
Aliphatics >C6-C8	mg/L	3.2		<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.00688	**0.419**	**0.164**	<0.01	**1.17**	**1.16**	**1.45**	**1.61**	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.0104 J
Aliphatics >C8-C10	mg/L	0.15		<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.00599	<0.01	<0.01	<0.01	<0.10	<0.0333	0.0144 J	0.0170 J	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	0.00770 J
Aliphatics >C10-C12	mg/L	0.15		<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aliphatics >C12-C16	mg/L	0.15		<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025	<0.025	<0.025	0.0275 J	<0.025	<0.025
Aliphatics >C16-C35	mg/L	7.3		<0.008	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.008	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.008	**0.275**	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C8-C10	mg/L	0.15		<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.018	<0.018	<0.01	<0.01	<0.01	<0.10	<0.0333	<0.0333	<0.018
Aromatics >C10-C12	mg/L	0.15		<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C12-C16	mg/L	0.15		<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.004	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C16-C21	mg/L	0.15		<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Aromatics >C21-C35	mg/L	0.15		<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Stable Isotopes																								
δD	‰	NS		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δ18O	‰	NS		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (DIC)	‰	NS		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 1
Groundwater Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

		Sample ID				6X Brine	007-B Brine		Starks Brine		SN 973224	SN 973365	SN 974245	Sulphur Prod	Tank Battery	189416	
		Sample Location	019-13434Z	019-1261	019-13785Z	SN 57788	SN 67270	7B-Brine	Starks Tie-In	Starks Brine	Brine Well 18	Brine Well 21	Brine Well 22	Sulphur Prod	Produced Water	SN 189416	
		Sample Interval (ft)	180-190'	170-175'	240-260'	Brine	3,000'	3,000'								1,300'	2,700'
		Sample Date	12/28/23	12/28/23	1/31/24	1/25/23	2/16/23	7/27/23	10/30/23	9/25/24	10/30/23	10/30/23	10/30/23	9/25/24	5/25/23	8/28/23	8/28/23
		Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**		**Residential Wells**			**Brine**									**Produced Water**		
Total Metals		**RECAP GWSS**															
Arsenic	mg/L	0.01	**0.0165**	0.00115 J	**0.00342**	0.0300 J	<0.04	<0.04	NA	<0.02	NA	NA	NA	<0.02	<0.008	<0.008	<0.008
Barium	mg/L	2	**0.288**	**0.203**	**0.276**	**0.220**	<0.19	<0.19	NA	**0.285**	NA	NA	NA	**0.217**	**60.1**	**67.4**	**80.6**
Cadmium	mg/L	0.005	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.02	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004
Calcium	mg/L	NS	**21.1**	**26.7**	**25.8**	**722**	**1,320**	**1,360**	NA	**558**	NA	NA	NA	**543**	**2,940**	**2,920**	**3,050**
Chromium	mg/L	0.1	0.00223 J	0.000654 J	0.000634 J	**0.243**	**0.722**	0.114 J	NA	0.0610 J	NA	NA	NA	0.0540 J	0.0717 J	0.0593 J	0.0606 J
Iron[a]	mg/L	0.3	0.0804 J	0.0962 J	**0.335**	**25.7**	9.65 J	2.78 J	NA	1.63 J	NA	NA	NA	3.71 J	1.94 J	**31.1**	**32.4**
Lead	mg/L	0.015	<0.0006	<0.0006	0.000918 J	<0.03	<0.06	<0.06	NA	<0.03	NA	NA	NA	<0.03	<0.012	**0.0839**	0.0342 J
Magnesium	mg/L	NS	**6.94**	**7.29**	**9.20**	8.16 J	8.64 J	9.30 J	NA	7.20 J	NA	NA	NA	8.00 J	**971**	**832**	**843**
Manganese[a]	mg/L	0.05	**0.132**	**0.0887**	**0.0868**	**0.953**	0.487 J	0.361 J	NA	0.235 J	NA	NA	NA	**0.266**	**1.43**	**6.78**	**6.60**
Mercury	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	NA	<0.00003	NA	NA	NA	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.073	<0.0006	0.000964 J	<0.0006	NA	NA	**0.211**	NA	<0.03	NA	NA	NA	<0.03	<0.012	**0.124**	**0.125**
Potassium	mg/L	NS	**1.04**	**1.22**	**1.21**	**14.4**	13.8 J	14.0 J	NA	**12.5**	NA	NA	NA	9.61 J	**185**	**182**	**190**
Selenium	mg/L	0.05	<0.0011	<0.0011	<0.0011	<0.0550	<0.11	<0.11	NA	NA	NA	NA	NA	NA	<0.022	<0.022	<0.022
Silver	mg/L	0.18	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.02	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004
Sodium	mg/L	NS	**68.9**	**59.7**	**64.2**	**100,000**	**82,600**	**91,900**	NA	**99,000**	NA	NA	NA	**67,900**	**44,000**	**45,400**	**47,900**
Strontium	mg/L	NS	**0.228**	**0.230**	**0.307**	**2.66**	**11.0**	**10.7**	NA	**1.84**	NA	NA	NA	**1.82**	**134**	**149**	**162**
Vanadium	mg/L	0.026	0.00178 J	0.00133 J	0.00146 J	NA	NA	<0.06	NA	<0.03	NA	NA	NA	<0.03	<0.012	<0.012	<0.012
Zinc	mg/L	1.1	**0.0782**	**0.0595**	**0.0291**	**0.481**	**1.70**	**1.55**	NA	<0.1	NA	NA	NA	<0.1	0.0695 J	**7.10**	**1.54**
Anions/Water Quality Parameters																	
Bicarbonate Alkalinity	mg/L	NS	**208**	**214**	**213**	**159**	**140**	**124**	NA	**234**	NA	NA	NA	**322**	**204**	**95.9**	**94.0**
Bromide	mg/L	NS	<0.03	0.0980 J	**0.101**	<3	<7.5	<15	NA	<7.5	NA	NA	NA	<7.5	**79.5**	**96.4**	**95.7**
Carbonate Alkalinity	mg/L	NS	<3.5	<3.5	<3.5	<5	<5	<5	NA	<3	NA	NA	NA	<3	<5	<5	<5
Chloride[a]	mg/L	250	**19.1**	**17.3**	**42.2**	**213,000**	**201,000**	**179,000**	NA	**194,000**	NA	NA	NA	**184,000**	**79,900**	**70,500**	**72,600**
Sulfate[a]	mg/L	250	0.468 J	<0.200	0.380 J	**1,380**	**3,060**	**3,270**	NA	**966**	NA	NA	NA	**1,120**	**1,340**	<10	<10
Total Dissolved Solids (TDS)[a]	mg/L	500	**212**	**226**	**298**	**239,000**	**300,000**	**255,000**	NA	**187,000**	NA	NA	NA	**199,000**	**161,000**	**159,000**	**149,000**
Total Organic Carbon (TOC)	mg/L	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH[a]	SI	6.5 - 8.5	7.76 H	7.67 H	8.08 H	NA	NA	6.75 H	NA	7.27 H	NA	NA	NA	6.63 H	6.97 H	8.10 H	8.06 H
pH (field)	SI	6.5 - 8.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfides																	
Hydrogen Sulfide	mg/L	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	NA	NA	<0.5	**1.7**	**23.1**	**23.3**
Sulfide	mg/L	NS	<1.2	<1.2	<1.2	<1	<1	<1.7	NA	<1.2	NA	NA	NA	<1.2	<1.7	<1.7	<1.7
Volatile Organic Compounds																	
Benzene	mg/L	0.005	<0.0002	<0.0002	<0.0002	**0.170**	**0.092**	**0.360**	NA	**0.0038**	NA	NA	NA	**0.0040**	<0.0002	<0.005	<0.005
Ethylbenzene	mg/L	0.7	<0.0003	<0.0003	<0.0003	0.0075 J	<0.0003	**0.0059**	NA	**0.0018**	NA	NA	NA	0.00030 J	<0.0003	<0.0075	<0.0075
Toluene	mg/L	1	<0.0002	<0.0002	<0.0002	**0.110**	**0.025**	**0.130**	NA	**0.011**	NA	NA	NA	**0.0033**	<0.0002	<0.005	<0.005
m,p-Xylene	mg/L	10	<0.0005	<0.0005	<0.0005	0.013 J	<0.0005	**0.0079**	NA	**0.0036**	NA	NA	NA	0.00081 J	<0.0005	<0.012	<0.012
o-Xylene	mg/L	10	<0.0003	<0.0003	<0.0003	0.0091 J	<0.0003	**0.0079**	NA	**0.0027**	NA	NA	NA	0.00053 J	<0.0003	<0.0075	<0.0075
Xylenes, Total	mg/L	10	<0.0003	<0.0003	<0.0003	**0.022**	<0.0003	**0.016**	NA	**0.0063**	NA	NA	NA	0.0013 J	<0.0003	<0.0075	<0.0075
TPH Fractions																	
Aliphatics >C6-C8	mg/L	3.2	<0.01	<0.01	<0.01	**0.0997**	**0.0803**	**0.147**	NA	<0.833	NA	NA	NA	<0.0333	**0.144**	**1.08**	<1
Aliphatics >C8-C10	mg/L	0.15	**0.0373**	<0.01	<0.01	<0.01	**0.107**	<0.01	NA	<0.833	NA	NA	NA	<0.0333	**0.0131**	**2.58**	<1
Aliphatics >C10-C12	mg/L	0.15	<0.001	<0.001	<0.001	<0.001	NA	<0.00192	NA	<0.025	NA	NA	NA	<0.025	**0.969**	**5.78**	**3.05**
Aliphatics >C12-C16	mg/L	0.15	<0.002	<0.002	<0.002	<0.002	NA	**0.0288**	NA	<0.025	NA	NA	NA	<0.025	**3.77**	**37.4**	**20.2**
Aliphatics >C16-C35	mg/L	7.3	<0.008	<0.008	<0.008	<0.008	NA	**0.774**	NA	<0.025	NA	NA	NA	<0.025	**4.44**	**118**	**65.3**
Aromatics >C8-C10	mg/L	0.15	**0.0286**	<0.01	<0.01	**0.0284**	**0.422**	**0.0373**	NA	<0.833	NA	NA	NA	<0.0333	**0.0557**	**1.23**	<1
Aromatics >C10-C12	mg/L	0.15	**0.0181**	<0.001	<0.001	<0.001	NA	**0.00293**	NA	<0.025	NA	NA	NA	<0.0250	**0.211**	**1.62**	**0.714**
Aromatics >C12-C16	mg/L	0.15	<0.004	<0.004	<0.004	<0.004	NA	**0.0109**	NA	<0.025	NA	NA	NA	<0.0250	**1.29**	**12.8**	**5.52**
Aromatics >C16-C21	mg/L	0.15	<0.003	<0.003	<0.003	<0.003	NA	**0.0281**	NA	<0.025	NA	NA	NA	<0.0250	**1.09**	**19.5**	**9.75**
Aromatics >C21-C35	mg/L	0.15	<0.004	<0.009	<0.009	<0.009	NA	**0.161**	NA	<0.025	NA	NA	NA	<0.0250	**1.05**	**38.2**	**20.3**
Stable Isotopes																	
δD	‰	NS	NA	NA	NA	NA	NA	NA	**-19.9**	NYR	**-17.7**	**-17.5**	**-16.9**	NYR	NA	**-11.8**	**-12.8**
δ18O	‰	NS	NA	NA	NA	NA	NA	NA	**-4.18**	NYR	**-3.95**	**-4.03**	**-4.00**	NYR	NA	**1.06**	**1.04**
$\delta^{13}C$ (DIC)	‰	NS	NA	NA	NA	NA	NA	NA	**-13.2**	NA	**-14.0**	**-14.1**	**-13.9**	NA	NA	NA	NA

Notes
J - Estimated Value reported below the detection limit.
H - pH is received at the lab outside of hold time.
< - Not Detected at the reporting limit shown.
Bolded values deteted in the sample.
NA - Not Analyzed
NS - No Standard
[a] - EPA Secondary MCL (No RECAP standard)
Blue shaded values exceed standard
NYR - Not Yet Received

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	LDNR Sample No.	LDNR 1						LDNR 3						
	Sample Date	1/25/23	5/18/23	12/11/23	3/26/24	6/17/24	9/23/24	1/30/23	5/22/23	9/18/23	12/11/23	3/26/24	6/18/24	9/24/24
	Sample Interval (ft)	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**												
Total Metals														
Arsenic	mg/L	0.00149 J	**0.00594**	0.00135 J	**0.00261**	**0.00249**	**0.00880**	0.000862 J	0.00113 J	**0.00442**	0.00142 J	0.000986 J	0.00117 J	0.00135 J
Barium	mg/L	**0.300**	**0.317**	**0.122**	**0.172**	**0.103**	**0.430**	**0.160**	**0.156**	**0.453**	**0.344**	**0.127**	**0.133**	**0.353**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**71.2**	**83.5**	**98.2**	**183**	**51.5**	**166**	**75.3**	**65.9**	**88.2**	**174**	**108**	**57.4**	**96.0**
Chromium	mg/L	0.000847 J	0.00159 J	0.000590 J	<0.0004	0.000988 J	0.00160 J	<0.0004	0.00201 J	0.000602 J	0.000578 J	<0.0004	0.000493 J	0.00152 J
Iron	mg/L	**1.14**	**3.04**	**0.879**	**2.30**	**1.10**	**6.11**	0.132 J	0.118 J	**0.254**	**1.06**	**0.628**	**0.247**	**0.218**
Lead	mg/L	**0.00208**	**0.00466**	<0.0006	0.000678 J	0.00174 J	0.000756 J	<0.0006	<0.0006	0.000710 J	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**19.8**	**16.1**	**25.9**	**48.7**	**9.71**	**44.7**	**15.0**	**12.0**	**25.4**	**41.8**	**21.2**	**9.8**	**20.0**
Manganese	mg/L	**0.797**	**1.75**	**1.34**	**2.76**	**0.502**	**2.37**	**0.266**	**0.389**	**0.859**	**0.977**	**0.195**	**1.15**	**2.01**
Mercury	mg/L	<0.00003	0.0000990 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	**0.00641**	**0.00473**	**0.00733**	**0.00394**	**0.00393**	NA	0.00114 J	**0.00212**	**0.00838**	0.00120 J	0.000878 J	0.00173 J
Potassium	mg/L	**2.57**	**2.83**	**2.81**	**3.79**	**2.59**	**4.18**	**2.90**	**2.17**	**4.09**	**5.28**	**2.61**	**2.52**	**4.30**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**156**	**123**	**161**	**288**	**76.8**	**268**	**174**	**155**	**534**	**630**	**288**	**100**	**250**
Strontium	mg/L	**0.619**	**0.598**	**0.622**	**1.22**	**0.339**	**1.16**	**0.556**	**0.479**	**0.894**	**1.32**	**0.709**	**0.398**	**0.664**
Vanadium		NA	**0.00639**	0.00189 J	0.00222 J	0.00300 J	0.00377 J	NA	0.00324 J	**0.0115**	**0.00626**	0.00275 J	0.00177 J	0.00476 J
Zinc	mg/L	**0.00857**	**0.0179**	**0.0135**	**0.0386**	**0.0177**	**0.246**	**0.00452**	**0.0448**	**0.0243**	**0.0395**	0.00319 J	**0.00599**	**0.0125**
Anions/Water Quality Parameters														
Bicarbonate Alkalinity	mg/L	**269**	**178**	**84.9**	**249**	**135**	**343**	**241**	**149**	**206**	**114**	**110**	**141**	**218**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	**0.313**	<0.03	<0.03	<0.06	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	<3.5	<3.5	<3	<3	<5	<5	<5	<3.5	<3.5	<3	<3
Chloride	mg/L	**317**	**213**	**346**	**592**	**111**	**585**	**308**	**322**	**928**	**1,110**	**472**	**181**	**383**
Sulfate	mg/L	**45.2**	**70.3**	**179**	**327**	**60.3**	**42.1**	**113**	**89.6**	**74.9**	**473**	**324**	**85.5**	**73.4**
Total Dissolved Solids (T	mg/L	**676**	**760**	**716**	**1,680**	**390**	**900**	**80.0**	**880**	**1,990**	**2,500**	**1,200**	**488**	**912**
pH	SI	NA	7.20 H	7.18 H	7.41 H	7.16 H	7.98 H	NA	7.75 H	6.97 H	7.41 H	7.50 H	7.02 H	7.74 H
Sulfides														
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	**1.44**	**3.57**	<0.5	<0.5	<0.5	<0.5	<0.5	**2.68**	**5.70**
Sulfide	mg/L	<1	<1.7	<1.7	<1.2	1.36 J	**3.36**	<1	<1.7	<1.7	<1.7	<1.2	**2.52**	**5.36**
Volatile Organic Compounds														
Benzene	mg/L	**0.00120**	<0.0002	0.00066 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00046 J	<0.0002	<0.0002	<0.000460	<0.0002
Ethylbenzene	mg/L	<0.0003	0.00058 J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003
Toluene	mg/L	0.00079 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.0011**	<0.0002	<0.0002	<0.000475	0.00041 J
m,p-Xylene	mg/L	<0.0005	<0.0005	0.00066 J	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	0.00066 J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions														
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.1	<0.833	<0.01	<0.01	**0.134**	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.1	<0.833	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	**0.0202**	<0.001	<0.01	<0.025	0.0293 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	**0.0746**	**0.234**	<0.001	**0.0354**	<0.025	**0.313**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	**0.249**	**0.876**	**0.0367**	**0.117**	<0.025	**2.30**	<0.008	<0.008	**0.0546**	<0.008	<0.008	<0.025	<0.025
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.1	<0.833	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.01	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	**0.0417**	**0.0179**	**0.0146**	**0.0153**	<0.025	0.0471 J	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	**0.121**	**0.0535**	**0.0259**	**0.0281**	<0.025	**0.343**	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	**0.0511**	**0.0197**	**0.0470**	<0.025	**0.894**	<0.009	<0.009	**0.0290**	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample.

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 4						LDNR 5						
Sample Date		1/30/23	5/22/23	12/11/23	3/26/24	6/17/24	9/23/24	1/30/23	5/17/23	9/19/23	12/13/23	3/26/24	6/17/24	9/24/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**												
Total Metals														
Arsenic	mg/L	0.000868 J	0.00110 J	**0.00211**	0.00125 J	0.00122 J	0.00186 J	0.000769 J	0.00139 J	0.00168 J	0.00151 J	0.00105 J	0.00116 J	0.00112 J
Barium	mg/L	**0.367**	**0.276**	**0.201**	**0.139**	**0.199**	**0.747**	**0.155**	**0.216**	**0.413**	**0.385**	**0.134**	**0.144**	**0.279**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**64.2**	**69.6**	**175**	**111**	**65.0**	**95.1**	**77.7**	**73.3**	**74.5**	**147**	**114**	**66.5**	**77.3**
Chromium	mg/L	<0.0004	<0.0004	0.00159 J	<0.0004	0.000751 J	0.00131 J	<0.0004	0.000998 J	<0.0004	0.00274 J	0.000460 J	0.000714 J	0.000664 J
Iron	mg/L	0.0258 J	0.0647 J	**8.23**	**0.904**	0.144 J	0.159 J	0.125 J	0.160 J	0.0875 J	0.0794 J	**0.217**	0.130 J	0.0335 J
Lead	mg/L	<0.0006	<0.0006	0.00103 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**12.6**	**13.6**	**42.6**	**22.1**	**13.0**	**19.9**	**15.0**	**14.7**	**28.0**	**40.1**	**23.5**	**13.4**	**16.3**
Manganese	mg/L	**0.458**	**0.747**	**3.15**	**0.477**	**1.60**	**2.07**	**0.232**	**2.28**	**0.523**	**0.145**	**0.206**	**1.50**	**0.900**
Mercury	mg/L	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	**0.00385**	**0.00519**	0.00132 J	0.00146 J	0.00145 J	NA	0.00168 J	0.000849 J	**0.00322**	0.00160 J	0.00143 J	0.00101 J
Potassium	mg/L	**2.58**	**2.34**	**5.52**	**2.77**	**3.03**	**4.51**	**2.86**	**2.53**	**4.25**	**4.78**	**2.66**	**3.14**	**2.89**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**166**	**176**	**581**	**288**	**134**	**289**	**19.1**	**203**	**571**	**792**	**275**	**136**	**214**
Strontium	mg/L	**0.482**	**0.532**	**1.21**	**0.72**	**0.469**	**0.720**	**0.578**	**0.552**	**0.883**	**1.19**	**0.761**	**0.491**	**0.599**
Vanadium		NA	0.00181 J	**0.00569**	0.00316 J	0.00193 J	0.00356 J	NA	0.00207 J	0.00499 J	**0.00628**	0.00274 J	0.00100 J	0.00170 J
Zinc	mg/L	0.00213 J	0.00289 J	**0.0186**	**0.015**	**0.0247**	**0.00451**	**0.00748**	0.00250 J	0.00357 J	**0.0297**	**0.0176**	**0.0057**	**0.0614**
Anions/Water Quality Parameters														
Bicarbonate Alkalinity	mg/L	**238**	**164**	**105**	**113**	**141**	**202**	**245**	**150**	**107**	**146**	**107**	**147**	**205**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	<3.5	<3.5	<3	<3	<5	<5	**13.8**	<3.5	<3.5	<3	<3
Chloride	mg/L	**296**	**340**	**1,140**	**462**	**203**	**401**	**343**	**332**	**982**	**1,140**	**507**	**211**	**389**
Sulfate	mg/L	**111**	**83.5**	**531**	**311**	**95.7**	**73.0**	**135**	**82.9**	**105**	**388**	**356**	**98.9**	**81.9**
Total Dissolved Solids (T	mg/L	**512**	**864**	**2,940**	**1,230**	**508**	**912**	**892**	**792**	**1,990**	**2,870**	**1,160**	**520**	**948**
pH	SI	NA	7.66 H	6.93 H	7.45 H	7.12 H	7.84 H	NA	7.79 H	8.61 H	7.85 H	7.81 H	7.26 H	7.30 H
Sulfides														
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	**3.23**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	<1	<1.7	<1.7	<1.2	<1.2	**3.04**	<1	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2
Volatile Organic Compounds														
Benzene	mg/L	<0.0002	<0.0002	**0.0011**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	<0.0002	<0.0002	0.00087 J	<0.0002	<0.0002	0.00044 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions														
Aliphatics >C6-C8	mg/L	<0.01	<0.01	**0.0645**	<0.01	<0.1	0.0193 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.1	<0.00599	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	**0.0083**	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	**0.0177**	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	<0.008	<0.025	<0.025	<0.008	<0.008	<0.008	**0.0193**	**0.0341**	<0.025	0.0311 J
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.1	<0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	**0.0167**	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	**0.0145**	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 6							LDNR 7						
Sample Date		2/28/23	5/18/23	9/19/23	12/12/23	3/26/24	6/18/24	9/25/24	2/28/23	5/17/23	9/19/23	12/12/23	3/27/24	6/18/24	9/25/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**													
Total Metals															
Arsenic	mg/L	0.000784 J	0.00108 J	**0.00200**	0.00134 J	0.00106 J	0.000982 J	0.00141 J	0.000886 J	0.00118 J	**0.00206**	0.00129 J	0.00108 J	0.00112 J	0.00131 J
Barium	mg/L	**0.116**	**0.152**	**0.446**	**0.37**	**0.129**	**0.138**	**0.289**	**0.119**	**0.194**	**0.451**	**0.355**	**0.136**	**0.161**	**0.274**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**66.3**	**66.3**	**82.8**	**142**	**113**	**59.2**	**75.8**	**65.8**	**66.3**	**74.5**	**132**	**116**	**66.3**	**79.6**
Chromium	mg/L	<0.0004	0.000731 J	<0.0004	0.00196 J	0.000500 J	0.000400 J	0.000751 J	<0.0004	0.000695 J	<0.0004	0.00179 J	0.000719 J	0.000631 J	0.000749 J
Iron	mg/L	0.0485 J	0.0249 J	0.0871 J	0.0757 J	0.0920 J	**0.215**	0.0566 J	0.0546 J	0.0565 J	0.0248 J	0.0657 J	0.0612 J	0.134 J	0.0254 J
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**11.7**	**12.4**	**31.1**	**38.8**	**23.1**	**10.6**	**16.3**	**11.5**	**13.2**	**29.7**	**35.8**	**23.9**	**12.3**	**16.8**
Manganese	mg/L	**0.813**	**0.645**	**1.18**	**0.19**	**0.0905**	**1.58**	**0.778**	**1.03**	**2.36**	**0.435**	**0.194**	**0.123**	**2.47**	**0.807**
Mercury	mg/L	<0.00003	0.0000670 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.000133 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00124 J	0.00128 J	**0.00265**	0.00129 J	0.00101 J	0.00116 J	NA	0.00130 J	0.000966 J	**0.00255**	0.00149 J	0.000964 J	0.00110 J
Potassium	mg/L	**2.31**	**2.18**	**4.63**	**4.71**	**2.60**	**2.62**	**2.93**	**2.36**	**2.19**	**4.31**	**4.30**	**2.64**	**2.96**	**3.02**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**142**	**161**	**598**	**649**	**300**	**113**	**233**	**140**	**171**	**591**	**592**	**302**	**129**	**232**
Strontium	mg/L	**0.441**	**0.496**	**0.930**	**1.14**	**0.76**	**0.40**	**0.599**	**0.426**	**0.509**	**0.895**	**1.07**	**0.787**	**0.458**	**0.624**
Vanadium		NA	0.00171 J	**0.00667**	**0.00593**	0.00235 J	0.00161 J	0.00223 J	NA	0.00226 J	**0.00588**	**0.00568**	0.00274 J	0.000979 J	0.00241 J
Zinc	mg/L	<0.002	0.00307 J	0.00336 J	**0.00469**	**0.0604**	**0.00808**	**0.00498**	<0.002	**0.0171**	0.00219 J	**0.00463**	**0.00401**	**0.00416**	0.00270 J
Anions/Water Quality Parameters															
Bicarbonate Alkalinity	mg/L	**148**	**143**	**116**	**146**	**109**	**133**	**377**	**162**	**147**	**116**	**144**	**118**	**129**	**187**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	<5	<3.5	<3.5	<3	<3	<5	<5	<5	<3.5	<3.5	<3	<3
Chloride	mg/L	**253**	**302**	**957**	**1,150**	**464**	**203**	**386**	**253**	**333**	**975**	**1,170**	**476**	**209**	**375**
Sulfate	mg/L	**96.8**	**90.7**	**101**	**386**	**309**	**94.9**	**82.4**	**95.1**	**85.7**	**101**	**386**	**319**	**97.9**	**81.9**
Total Dissolved Solids (T	mg/L	**710**	**784**	**2,030**	**2,810**	**1,220**	**512**	**7,550**	**712**	**832**	**1,890**	**2,530**	**1,180**	**556**	**1,050**
pH	SI	NA	7.96 H	7.84 H	7.96 H	8.07 H	7.20 H	7.47 H	NA	7.95 H	8.01 H	7.83 H	7.99 H	7.21 H	7.48 H
Sulfides															
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.552 J	<0.5
Sulfide	mg/L	<1	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2
Volatile Organic Compounds															
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions															
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	<0.01	<0.01	**0.0118**	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	**0.0242**	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	**0.0288**	<0.008	<0.025	<0.025	<0.008	<0.008	<0.008	**0.0207**	**0.0483**	<0.025	<0.025
Aromatics >C8-C10	mg/L	**0.0102**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	**0.0103**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	**0.0379**	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	**0.0243**	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 8							LDNR 9						LDNR 10
Sample Date		2/28/23	5/18/23	9/19/23	12/12/23	3/27/24	6/18/24	9/25/24	2/10/23	5/18/23	12/13/23	3/28/24	6/19/24	9/26/24	2/10/23
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**													
Total Metals															
Arsenic	mg/L	0.000975 J	0.00150 J	0.00189 J	0.00134 J	0.00104 J	0.00109 J	0.00153 J	0.00176 J	**0.00419**	0.00154 J	**0.00212**	**0.00641**	**0.00456**	0.000896 J
Barium	mg/L	**0.127**	**0.224**	**0.475**	**0.388**	**0.125**	**0.14**	**0.291**	**0.118**	**0.168**	**0.037**	**0.0233**	**0.147**	**0.0513**	**0.0594**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002
Calcium	mg/L	**68.1**	**74**	**80.1**	**140**	**114**	**63**	**97.1**	**38.6**	**50.2**	**303**	**113**	**37.2**	**23.2**	**55.8**
Chromium	mg/L	<0.0004	0.000627 J	0.000472 J	0.00238 J	<0.0004	<0.0004	0.00156 J	<0.0004	0.000513 J	0.00192 J	0.000866 J	0.000569 J	0.00142 J	<0.0004
Iron	mg/L	0.166 J	**0.27**	0.0310 J	0.0580 J	0.0505 J	0.0896 J	0.0310 J	**0.609**	**0.694**	**1.83**	**1.24**	**0.658**	0.196 J	0.0432 J
Lead	mg/L	<0.0006	0.000694 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**12**	**14.7**	**30.7**	**37.9**	**22.6**	**11.9**	**20.5**	**4.2**	**5.93**	**26.5**	**12.7**	**5.75**	**5.28**	**5.64**
Manganese	mg/L	**0.972**	**2.15**	**0.602**	**0.146**	**0.113**	**1.58**	**1.07**	**0.204**	**0.614**	**0.11**	**0.135**	**3.00**	**0.0612**	**0.0295**
Mercury	mg/L	<0.00003	0.000109 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00179 J	0.00106 J	**0.00254**	0.00139 J	0.000779 J	0.00140 J	NA	0.00192 J	**0.00504**	**0.0023**	0.000631 J	0.000715 J	NA
Potassium	mg/L	**2.39**	**2.54**	**4.51**	**4.47**	**2.63**	**2.82**	**3.53**	**1.17**	**2.39**	**3.45**	**0.669**	**3.71**	**1.16**	**2.44**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002
Sodium	mg/L	**144**	**196**	**631**	**653**	**303**	**130**	**222**	**64.6**	**83.4**	**334**	**166**	**47.6**	**128**	**37.6**
Strontium	mg/L	**0.457**	**0.56**	**0.951**	**1.15**	**0.712**	**0.436**	**0.642**	**0.243**	**0.35**	**1.4**	**0.711**	**0.265**	**0.241**	**0.237**
Vanadium		NA	0.00434 J	**0.00532**	**0.00599**	0.00232 J	0.000874 J	0.00243 J	NA	**0.0105**	0.00487 J	0.00316 J	0.00102 J	0.00133 J	NA
Zinc	mg/L	**0.0658**	**0.0171**	**0.0296**	**0.0823**	**0.00633**	**0.00406**	**0.0422**	**0.00496**	**0.0221**	**0.0516**	**0.00406**	**0.0335**	**0.00924**	**0.00654**
Anions/Water Quality Parameters															
Bicarbonate Alkalinity	mg/L	**144**	**148**	**99.4**	**144**	**113**	**132**	**209**	**163**	**188**	**71.0**	**63.6**	**146.0**	**62.8**	**107**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	**14.0**	<3.5	<3.5	<3	<3	<5	<5	<3.5	<3.5	<3	**25.1**	<5
Chloride	mg/L	**251**	**333**	**1,010**	**1,180**	**481**	**227**	**390**	**95.8**	**117**	**241**	**175**	**50.8**	**175**	**47.0**
Sulfate	mg/L	**96.2**	**84.9**	**105**	**388**	**339**	**98.1**	**82.2**	**16.5**	**13.3**	**1,170**	**503**	**12**	**35.1**	**133**
Total Dissolved Solids (T	mg/L	**748**	**836**	**1,770**	**2,770**	**1,160**	**576**	**828**	**290**	**416**	**1,640**	**890**	**540**	**440**	**412**
pH	SI	NA	8.00 H	8.69 H	7.84 H	7.95 H	7.23 H	7.40 H	NA	8.09 H	7.76 H	8.02 H	7.36 H	9.03 H	NA
Sulfides															
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	**1.19**	NA	<0.5	<0.5	<0.5	<0.5	0.978 J	<0.5	**23.9**
Sulfide	mg/L	<1	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1	<1.7	<1.7	<1.2	<1.2	<1.2	<1
Volatile Organic Compounds															
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003
TPH Fractions															
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	<0.01
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	<0.01
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	**0.0125**	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	**0.0259**	<0.025	<0.025	<0.002	<0.002	<0.002	**0.0176**	<0.025	<0.025	<0.002
Aliphatics >C16-C35	mg/L	<0.008	<0.008	**0.0334**	<0.008	**0.0406**	<0.025	<0.025	<0.008	<0.008	<0.008	**0.0319**	<0.025	<0.025	<0.008
Aromatics >C8-C10	mg/L	**0.0101**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167	<0.01
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	**0.00424**	<0.001	<0.025	<0.025	<0.001
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	**0.0137**	<0.003	<0.025	<0.025	<0.003
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 12										LDNR 13			
Sample Date		2/28/23	5/18/23	9/19/23	12/12/23	1/9/24	1/9/24	1/31/24	3/27/24	6/18/24	9/23/24	12/13/23	3/27/24	6/18/24	9/25/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Bottom	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**													
Total Metals															
Arsenic	mg/L	0.000861 J	0.00121 J	**0.00217**	0.00135 J	NA	NA	NA	0.00104 J	0.00100 J	0.00124 J	0.00152 J	0.00102 J	0.00117 J	0.00132 J
Barium	mg/L	**0.119**	**0.168**	**0.440**	**0.411**	NA	NA	NA	**0.144**	**0.148**	**0.277**	**0.407**	**0.155**	**0.156**	**0.299**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	<0.0002	NA	NA	NA
Calcium	mg/L	**66.9**	**70.2**	**80.7**	**151**	NA	NA	NA	**121**	**61.1**	**82.8**	**152**	**123**	**69.1**	**83.5**
Chromium	mg/L	<0.0004	0.000565 J	0.000960 J	0.00236 J	NA	NA	NA	0.000659 J	0.000510 J	0.00130 J	0.00260 J	0.00106 J	0.000468 J	0.00123 J
Iron	mg/L	0.0570 J	0.0237 J	0.0404 J	0.0689 J	NA	NA	NA	0.0544 J	0.0945 J	0.0357 J	0.0712 J	0.132 J	0.0877 J	0.0301 J
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	NA	NA	NA	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**11.9**	**14.2**	**32.6**	**41.4**	NA	NA	NA	**24.8**	**11.3**	**17.2**	**41.0**	**24.8**	**12.3**	**18.0**
Manganese	mg/L	**0.885**	**0.732**	**0.768**	**0.159**	NA	NA	NA	**0.14**	**2.45**	**0.686**	**0.134**	**0.336**	**2.10**	**0.703**
Mercury	mg/L	<0.00003	**0.000206**	<0.00003	<0.00003	NA	NA	NA	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00126 J	0.00137 J	**0.00255**	NA	NA	NA	0.00148 J	0.000903 J	0.00129 J	**0.0034**	0.00160 J	0.00108 J	0.00116 J
Potassium	mg/L	**2.30**	**2.33**	**4.79**	**4.93**	NA	NA	NA	**2.74**	**2.74**	**3.11**	**4.85**	**2.88**	**3.06**	**3.09**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA	NA	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA	<0.0002	NA	NA	NA
Sodium	mg/L	**146**	**194**	**603**	**693**	NA	NA	NA	**318**	**120**	**272**	**626**	**318**	**145**	**210**
Strontium	mg/L	**0.451**	**0.533**	**0.947**	**1.25**	NA	NA	NA	**0.829**	**0.419**	**0.627**	**1.24**	**0.828**	**0.474**	**0.650**
Vanadium		NA	0.00202 J	**0.00636**	**0.00592**	NA	NA	NA	0.00264 J	0.000865 J	0.00271 J	**0.00506**	0.00311 J	0.00133 J	0.00269 J
Zinc	mg/L	**0.0445**	0.00299 J	**0.0118**	**0.0134**	NA	NA	NA	**0.0237**	**0.00565**	**0.00468**	**0.00759**	**0.0111**	**0.0177**	**0.00900**
Anions/Water Quality Parameters															
Bicarbonate Alkalinity	mg/L	**142**	**146**	**107**	**148**	NA	NA	NA	**112**	**133**	**180**	**144**	**120**	**131**	**205**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	<5	<3.5	NA	NA	NA	<3.5	<3	<3	<3.5	<3.5	<3	<3
Chloride	mg/L	**257**	**327**	**972**	**1,170**	**834**	**816**	**337**	**504**	**211**	**375**	**1,170**	**493**	**228**	**396**
Sulfate	mg/L	**96.5**	**84.9**	**103**	**385**	**393**	**385**	**236**	**339**	**96.5**	**81.3**	**391**	**316**	**93.1**	**80.3**
Total Dissolved Solids (T	mg/L	**712**	**802**	**2,210**	**2,510**	**2,190**	**2,020**	**960**	**1,100**	**524**	**884**	**1,970**	**1,190**	**532**	**896**
pH	SI	NA	8.07 H	8.15 H	7.87 H	6.89 H	6.79 H	NA	7.93 H	7.24 H	8.04 H	7.85 H	7.58 H	7.23 H	7.42 H
Sulfides															
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	<0.5	0.978 J	<0.5	<0.5	<0.5	0.552 J	NA
Sulfide	mg/L	<1	<1.7	<1.7	<1.7	NA	NA	NA	<1.2	<1.2	<1.2	<1.7	<1.2	<1.2	<1.20 J
Volatile Organic Compounds															
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.000460	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	NA	NA	NA	<0.0003	<0.000385	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.000475	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	NA	NA	NA	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	NA	NA	NA	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions															
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	<0.01	<0.1	0.00729 J	<0.01	<0.01	<0.1	<0.333
Aliphatics >C8-C10	mg/L	<0.01	<0.01	**0.0123**	<0.01	NA	NA	NA	<0.01	<0.1	<0.00599	<0.01	<0.01	<0.1	<0.333
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.025	<0.025	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	NA	NA	NA	<0.002	<0.025	<0.025	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	<0.008	NA	NA	NA	<0.008	<0.025	<0.025	<0.008	<0.008	<0.025	<0.025
Aromatics >C8-C10	mg/L	**0.0102**	<0.01	<0.01	<0.01	NA	NA	NA	<0.01	<0.1	<0.018	<0.01	<0.01	<0.1	<0.333
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.025	<0.025	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	NA	NA	NA	<0.004	<0.025	<0.025	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	NA	NA	NA	<0.003	<0.025	<0.025	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.009	NA	NA	NA	<0.009	<0.025	<0.025	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	LDNR Sample No.	LDNR 14				LDNR 17						
	Sample Date	12/13/23	3/27/24	6/18/24	9/25/24	2/28/23	5/17/23	9/20/23	12/13/23	3/26/24	6/17/24	9/24/24
	Sample Interval (ft)	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**										
Total Metals												
Arsenic	mg/L	0.00133 J	0.000983 J	0.000965 J	0.00109 J	0.000797 J	0.00130 J	0.00192 J	0.00140 J	0.000926 J	0.00111 J	0.00130 J
Barium	mg/L	**0.371**	**0.142**	**0.135**	**0.265**	**0.118**	**0.188**	**0.475**	**0.400**	**0.114**	**0.154**	**0.294**
Cadmium	mg/L	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**147**	**118**	**60.1**	**73.1**	**65.8**	**71.3**	**77.5**	**156**	**101**	**65.2**	**79.5**
Chromium	mg/L	0.00227 J	0.00251 J	<0.0004	0.000980 J	<0.0004	0.00127 J	<0.0004	0.00200 J	<0.0004	0.000616 J	0.000846 J
Iron	mg/L	0.0460 J	0.107 J	0.0719 J	0.0196 J	0.0795 J	0.0852 J	0.0764 J	0.162 J	0.181 J	**0.214**	0.0575 J
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**38.2**	**24.2**	**10.8**	**15.8**	**11.5**	**14.1**	**29.0**	**42.1**	**20.2**	**12.9**	**16.6**
Manganese	mg/L	**0.233**	**0.234**	**1.70**	**0.591**	**1.00**	**1.29**	**0.785**	**0.195**	**0.171**	**1.43**	**0.936**
Mercury	mg/L	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	**0.000338**	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	**0.00238**	0.00200 J	0.000802 J	0.00114 J	NA	0.00159 J	0.00123 J	**0.00398**	0.00122 J	0.00161 J	0.00110 J
Potassium	mg/L	**4.71**	**2.78**	**2.69**	**2.76**	**2.36**	**2.42**	**4.07**	**5.00**	**2.36**	**3.01**	**2.89**
Selenium	mg/L	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**674**	**309**	**123**	**203**	**137**	**197**	**564**	**808**	**269**	**132**	**214**
Strontium	mg/L	**1.19**	**0.786**	**0.412**	**0.598**	**0.435**	**0.54**	**0.900**	**1.240**	**0.663**	**0.474**	**0.634**
Vanadium		**0.00527**	0.00229 J	0.000981 J	0.00243 J	NA	0.00221 J	**0.00586**	**0.00637**	0.00273 J	0.00280 J	0.00234 J
Zinc	mg/L	**0.00472**	**0.00932**	**0.00541**	0.00287 J	**0.0119**	<0.002	**0.00505**	**0.0321**	**0.0156**	**0.0139**	**0.00931**
Anions/Water Quality Parameters												
Bicarbonate Alkalinity	mg/L	**144**	**114**	**122**	**197**	**144**	**149**	**130**	**143**	**114**	**152**	**209**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<3.5	<3.5	<3	<3	<5	<5	<5	<3.5	<3.5	<3	<3
Chloride	mg/L	**1,130**	**503**	**219**	**391**	**248**	**328**	**984**	**1,170**	**428**	**203**	**381**
Sulfate	mg/L	**397**	**329**	**93.7**	**81.3**	**95.9**	**84.7**	**101**	**400**	**292**	**96.8**	**81.4**
Total Dissolved Solids (T	mg/L	**2,140**	**1,240**	**548**	**816**	**732**	**928**	**2,160**	**2,390**	**1,170**	**544**	**828**
pH	SI	7.91 H	7.71 H	7.20 H	8.03 H	NA	7.84 H	7.74 H	7.85 H	7.66 H	7.19 H	7.21 H
Sulfides												
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	**1.66**	**2.08**
Sulfide	mg/L	<1.7	<1.2	<1.2	<1.2	<1	<1.7	<1.7	<1.7	<1.2	1.56 J	1.96 J
Volatile Organic Compounds												
Benzene	mg/L	<0.0002	<0.0002	<0.000460	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.000475	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
TPH Fractions												
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	**0.0173**	<0.008	<0.025	<0.025	<0.008	<0.008	<0.008	<0.008	<0.008	<0.025	<0.025
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.1	<0.0333	**0.0101**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	LDNR Sample No.	LDNR 18							LDNR 19					
	Sample Date	2/28/23	5/17/23	9/19/23	12/13/23	3/26/24	6/17/24	9/25/24	2/28/23	5/18/23	12/11/23	3/28/24	6/19/24	9/26/24
	Sample Interval (ft)	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**												
Total Metals														
Arsenic	mg/L	0.000916 J	0.00124 J	0.00195 J	0.00132 J	0.00102 J	0.000929 J	0.00150 J	**0.00355**	<0.0004	0.00111 J	**0.00272**	**0.00341**	**0.00808**
Barium	mg/L	**0.125**	**0.183**	**0.450**	**0.405**	**0.126**	**0.129**	**0.295**	**0.127**	**0.149**	**0.0326**	**0.0379**	**0.099**	**0.0894**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**68.6**	**70.1**	**86.2**	**150**	**109**	**59.4**	**92.1**	**62**	**19.8**	**267**	**112**	**52.5**	**24.4**
Chromium	mg/L	<0.0004	0.000762 J	<0.0004	0.00244 J	0.00128 J	<0.0004	0.00132 J	<0.0004	0.000530 J	<0.0004	0.000985 J	0.000457 J	0.00100 J
Iron	mg/L	0.0686 J	0.0526 J	0.0298 J	0.0896 J	0.111 J	0.105 J	0.0416 J	0.102 J	**2.43**	**0.657**	**0.769**	**0.528**	**1.06**
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**12.0**	**14.0**	**32.9**	**41.0**	**22.7**	**11.9**	**19.5**	**4.36**	**6.72**	**23.7**	**12.4**	**3.06**	**5.14**
Manganese	mg/L	**1.03**	**1.43**	**0.484**	**0.134**	**0.113**	**1.29**	**0.887**	**0.24**	**0.314**	**0.0462**	**0.0348**	**0.444**	**0.112**
Mercury	mg/L	<0.00003	0.0000970 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	**0.000407**	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00144 J	0.00102 J	**0.0029**	0.00150 J	0.00106 J	0.00128 J	NA	<0.0006	**0.00384**	**0.00229**	<0.0006	0.00115 J
Potassium	mg/L	**2.42**	**2.35**	**4.66**	**4.84**	**2.55**	**2.72**	**3.27**	**0.962**	**3.03**	**3.22**	**0.619**	**0.846**	**1.11**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**143**	**189**	**594**	**843**	**287**	**120**	**236**	**71.2**	**58.3**	**200**	**168**	**22.9**	**131**
Strontium	mg/L	**0.452**	**0.536**	**0.975**	**1.24**	**0.743**	**0.435**	**0.654**	**0.338**	**0.17**	**1.36**	**0.709**	**0.272**	**0.251**
Vanadium		NA	0.00207 J	**0.00646**	**0.00609**	0.00194 J	0.000779 J	0.00306 J	NA	<0.0006	0.00105 J	0.00378 J	0.000796 J	0.00469 J
Zinc	mg/L	<0.002	**0.00659**	<0.002	**0.00572**	**0.0119**	**0.00578**	**0.00446**	**0.00535**	**0.132**	**0.0121**	**0.0198**	**0.0308**	**0.0185**
Anions/Water Quality Parameters														
Bicarbonate Alkalinity	mg/L	**148**	**146**	**106**	**146**	**111**	**147**	**201**	**240**	**159**	**73.5**	**71.4**	**160**	**67.0**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	**0.144**	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	**17.6**	<3.5	<3.5	<3	<3	<5	<5	<3.5	<3.5	<3	**16.7**
Chloride	mg/L	**248**	**331**	**971**	**1,140**	**475**	**206**	**395**	**98.4**	**30.1**	**221**	**171**	**23.7**	**184**
Sulfate	mg/L	**95.9**	**83.8**	**102**	**379**	**322**	**99.3**	**82.8**	**6.72**	**7.5**	**1,110**	**478**	**24.4**	**26.4**
Total Dissolved Solids (T	mg/L	**706**	**748**	**1,950**	**2,330**	**1,130**	**512**	**828**	**408**	**286**	**1,640**	**864**	**182**	**444**
pH	SI	NA	7.94 H	8.73 H	7.90 H	7.85 H	7.29 H	8.06 H	NA	8.03 H	7.72 H	8.13 H	7.35 H	9.11 H
Sulfides														
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	**1.15**	**2.51**	NA	<0.5	<0.5	<0.5	<0.5	**1.83**	<0.5
Sulfide	mg/L	<1	<1.7	<1.7	<1.7	<1.2	**2.36**	1.20 J	<1	<1.7	<1.7	<1.2	1.72 J	<1.2
Volatile Organic Compounds														
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions														
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	**0.0148**	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	<0.008	**0.0278**	<0.025	<0.025	<0.008	<0.008	<0.008	<0.008	<0.025	<0.025
Aromatics >C8-C10	mg/L	**0.0101**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	**0.0105**	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 21							LDNR 22						
Sample Date		3/30/23	5/17/23	9/19/23	12/13/23	3/26/24	6/17/24	9/25/24	3/30/23	5/17/23	9/19/23	12/13/23	3/26/24	6/18/24	9/24/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**													
Total Metals															
Arsenic	mg/L	0.000855 J	0.00115 J	0.00184 J	0.00138 J	0.000873 J	0.000974 J	0.00118 J	0.000998 J	0.00120 J	0.00186 J	0.00136 J	0.000841 J	0.000963 J	0.00126 J
Barium	mg/L	**0.116**	**0.163**	**0.400**	**0.395**	**0.126**	**0.143**	**0.293**	**0.135**	**0.175**	**0.496**	**0.388**	**0.121**	**0.131**	**0.293**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**78.4**	**65.5**	**77.7**	**146**	**110**	**64.4**	**81.6**	**89.2**	**71.9**	**78.8**	**155**	**102**	**61.3**	**77.6**
Chromium	mg/L	<0.0004	0.000779 J	<0.0004	0.00271 J	0.00239 J	0.000634 J	0.00101 J	<0.0004	0.000811 J	<0.0004	0.00231 J	<0.0004	<0.0004	0.000733 J
Iron	mg/L	0.0273 J	0.0315 J	0.0291 J	0.0827 J	0.145 J	0.125 J	0.0336 J	0.0375 J	0.0302 J	**0.330**	0.0448 J	0.0693 J	0.0807 J	0.0325 J
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**13.9**	**13.1**	**29.2**	**39.8**	**23.0**	**13.0**	**17.5**	**15.9**	**14.4**	**29.2**	**40.7**	**21.1**	**11.5**	**16.1**
Manganese	mg/L	**0.445**	**0.99**	**0.540**	**0.142**	**0.152**	**1.450**	**0.973**	**0.43**	**1.04**	**1.03**	**0.196**	**0.12**	**1.25**	**0.910**
Mercury	mg/L	<0.00003	0.000151 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00143 J	0.000935 J	**0.00298**	**0.00219**	0.00112 J	0.00153 J	NA	0.00142 J	0.00103 J	**0.00267**	**0.0094**	0.000872 J	0.00153 J
Potassium	mg/L	**2.15**	**2.21**	**4.16**	**4.71**	**2.53**	**2.99**	**3.01**	**2.45**	**2.37**	**4.30**	**4.93**	**2.35**	**2.74**	**2.90**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**186**	**169**	**570**	**664**	**296**	**133**	**244**	**211**	**195**	**534**	**679**	**268**	**120**	**236**
Strontium	mg/L	**0.495**	**0.501**	**0.898**	**1.20**	**0.741**	**0.475**	**0.653**	**0.559**	**0.545**	**0.919**	**1.24**	**0.690**	**0.427**	**0.608**
Vanadium		NA	0.00184 J	0.00473 J	**0.00592**	0.00254 J	0.00108 J	0.00208 J	NA	0.00197 J	**0.00528**	**0.00583**	0.00232 J	0.00101 J	0.00225 J
Zinc	mg/L	<0.002	**0.0657**	0.00372 J	**0.0139**	**0.0319**	**0.00608**	**0.00863**	**0.00431**	**0.0368**	**0.00635**	**0.0143**	**0.00793**	0.00268 J	0.00351 J
Anions/Water Quality Parameters															
Bicarbonate Alkalinity	mg/L	**162**	**147**	**106**	**148**	**106**	**145**	**209**	**162**	**148**	**124**	**142**	**108**	**132**	**188**
Bromide	mg/L	<0.03	<0.03	<0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	**13.2**	<3.5	<3.5	<3	<3	<5	<5	<5	<3.5	<3.5	<3	<3
Chloride	mg/L	**342**	**334**	**921**	**1,120**	**460**	**205**	**386**	**343**	**330**	**999**	**1,170**	**476**	**206**	**348**
Sulfate	mg/L	**93.9**	**83.6**	**100**	**375**	**312**	**99.6**	**82.1**	**94.1**	**83.7**	**105**	**400**	**320**	**99.5**	**81.4**
Total Dissolved Solids (T	mg/L	**872**	**776**	**2,000**	**2,460**	**1,220**	**556**	**868**	**812**	**812**	**2,300**	**2,680**	**1,250**	**572**	**868**
pH	SI	7.74 H	7.88 H	8.62 H	7.87 H	7.82 H	7.20 H	7.36 H	7.70 H	7.98 H	8.02 H	7.88 H	7.82 H	7.29 H	7.40 H
Sulfides															
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	**1.19**	**1.02**
Sulfide	mg/L	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1.7	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2
Volatile Organic Compounds															
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions															
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	**0.0183**	<0.008	<0.025	<0.025	<0.008	<0.008	<0.008	**0.0172**	<0.008	<0.025	0.0302 J
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.167
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	**0.0374**	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 23							LDNR 24				
Sample Date		3/30/23	5/18/23	9/19/23	12/12/23	3/27/24	6/18/24	9/25/24	5/22/23	12/11/23	3/26/24	6/17/24	9/23/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**											
Total Metals													
Arsenic	mg/L	0.000930 J	0.00126 J	**0.00250**	0.00142 J	0.00106 J	0.00106 J	0.00142 J	0.00124 J	0.00173 J	0.00105 J	0.000943 J	0.00180 J
Barium	mg/L	**0.132**	**0.18**	**0.460**	**0.393**	**0.147**	**0.151**	**0.307**	**0.226**	**0.327**	**0.122**	**0.118**	**0.320**
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	NA	NA	NA
Calcium	mg/L	**84.1**	**73.1**	**85.9**	**149**	**126**	**63.5**	**85.4**	**71.8**	**192**	**99.7**	**58.3**	**84.2**
Chromium	mg/L	<0.0004	0.000789 J	<0.0004	0.00248 J	0.000831 J	0.000514 J	0.00112 J	<0.0004	0.00100 J	<0.0004	0.000559 J	0.000954 J
Iron	mg/L	0.0270 J	0.0654 J	0.0343 J	0.0799 J	**0.245**	0.104 J	0.0337 J	**0.327**	**2.56**	**0.554**	0.0953 J	0.151 J
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000602 J	<0.0006	<0.0006	<0.0006
Magnesium	mg/L	**14.8**	**13.7**	**32.5**	**40.5**	**25.7**	**11.5**	**18.3**	**12.5**	**40.2**	**19.5**	**10.9**	**17.6**
Manganese	mg/L	**0.379**	**1.08**	**0.696**	**0.216**	**0.148**	**2.08**	**0.888**	**0.574**	**2.22**	**0.177**	**0.809**	**1.07**
Mercury	mg/L	<0.00003	0.000124 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	NA	0.00147 J	0.00119 J	**0.00277**	0.00155 J	0.000936 J	0.00109 J	0.000869 J	**0.0041**	0.00144 J	0.000800 J	0.00185 J
Potassium	mg/L	**2.33**	**2.51**	**5.03**	**4.9**	**2.91**	**2.82**	**3.19**	**2.6**	**7.04**	**2.37**	**2.62**	**3.88**
Selenium	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	NA	NA	NA
Silver	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	NA	NA	NA
Sodium	mg/L	**205**	**175**	**586**	**661**	**327**	**121**	**213**	**161**	**385**	**272**	**114**	**262**
Strontium	mg/L	**0.542**	**0.546**	**0.937**	**1.20**	**0.849**	**0.436**	**0.668**	**0.519**	**1.28**	**0.666**	**0.394**	**0.626**
Vanadium		NA	0.00167 J	**0.00711**	**0.00612**	0.00182 J	0.00105 J	0.00254 J	0.00246 J	0.00442 J	0.00331 J	0.00151 J	0.00451 J
Zinc	mg/L	0.00291 J	**0.0588**	0.00284 J	**0.00868**	<0.002	0.00249 J	**0.00491**	0.00278 J	**0.0428**	**0.102**	**0.00824**	**0.00409**
Anions/Water Quality Parameters													
Bicarbonate Alkalinity	mg/L	**162**	**148**	**120**	**146**	**112**	**126**	**197**	**176**	**197**	**111**	**127**	**184**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<5	<5	<3.5	<3.5	<3	<3	<5	<3.5	<3.5	<3	<3
Chloride	mg/L	**346**	**312**	**960**	**1,160**	**489**	**201**	**388**	**314**	**905**	**480**	**195**	**378**
Sulfate	mg/L	**94**	**89.1**	**99.3**	**387**	**328**	**95.6**	**79.9**	**79.9**	**492**	**323**	**94.6**	**76.9**
Total Dissolved Solids (T	mg/L	**844**	**1,540**	**1,810**	**2,580**	**1,250**	**540**	**780**	**840**	**1,570**	**1,150**	**524**	**840**
pH	SI	7.58 H	7.79 H	7.94 H	7.89 H	7.77 H	7.25 H	8.07 H	7.58 H	7.24 H	7.45 H	7.12 H	7.70 H
Sulfides													
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.978 J	NA	<0.5	<0.5	<0.5	<0.5	**7.48**
Sulfide	mg/L	<1.7	<1.7	<1.7	<1.7	<1.2	<1.20	1.96 J	<1.7	<1.7	<1.2	<1.2	**7.04**
Volatile Organic Compounds													
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	0.00074 J	**0.0037**	<0.0002	<0.000460	**0.0013**
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003	0.00044 J	<0.0003	<0.000385	<0.0003
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000475	0.00034 J	**0.0011**	**0.0050**	<0.0002	<0.000475	**0.0012**
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003
TPH Fractions													
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	**0.0758**	**0.719**	**0.0125**	<0.1	**0.526**
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.1	0.0114 J
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.025	<0.025
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.025	<0.025
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	**0.0197**	<0.008	<0.025	<0.025	<0.008	<0.008	<0.008	0.0371 J	0.0252 J
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.1	<0.018
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.025	<0.025
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.025	<0.025
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.025	<0.025
Aromatics >C21-C35	mg/L	<0.009	<0.009	**0.0366**	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	<0.009	<0.025	<0.025

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		LDNR 25					LDNR 26						PPG 7A BS	
Sample Date		9/20/23	12/12/23	3/27/24	6/18/24	9/25/24	7/17/23	9/18/23	12/11/23	3/26/24	6/18/24	9/24/24	1/25/23	12/11/23
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**												
Total Metals														
Arsenic	mg/L	**0.00215**	0.00143 J	0.000945 J	0.00103 J	0.00119 J	**0.00246**	0.00130 J	0.00190 J	0.00166 J	0.00186 J	0.00172 J	0.000767 J	0.00192 J
Barium	mg/L	**0.393**	**0.386**	**0.145**	**0.137**	**0.264**	**1.07**	**0.540**	**0.504**	**0.400**	**0.461**	**0.375**	**0.232**	**0.133**
Cadmium	mg/L	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	0.000664 J
Calcium	mg/L	**83.7**	**151**	**119**	**59.4**	**72.9**	**11.5**	**9.70**	**10.20**	**8.50**	**9.36**	**8.65**	**24.5**	**29.8**
Chromium	mg/L	0.00101 J	0.00224 J	0.000726 J	<0.0004	0.000722 J	0.00322 J	<0.0004	0.000515 J	<0.0004	0.000502 J	0.000524 J	0.000474 J	0.00218 J
Iron	mg/L	0.172 J	0.0452 J	0.0721 J	0.0858 J	0.0423 J	**1.06**	0.0902 J	0.146 J	0.149 J	**0.208**	0.0748 J	0.0406 J	**0.267**
Lead	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	**0.00946**	<0.0006	0.000846 J	<0.0006	0.00132 J	<0.0006	<0.0006	**0.00251**
Magnesium	mg/L	**33.5**	**40.6**	**24.7**	**10.6**	**15.2**	**1.90**	**1.70**	**1.91**	**1.53**	**1.68**	**1.63**	**1.54**	**2.29**
Manganese	mg/L	**0.557**	**0.181**	**0.224**	**1.59**	**0.557**	**0.516**	**0.0277**	**0.0524**	**0.0264**	**0.0468**	**0.0256**	**0.0215**	**0.0205**
Mercury	mg/L	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.0000500 J	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel	mg/L	0.00115 J	**0.00249**	0.00139 J	0.000804 J	0.00121 J	**0.00271**	<0.0006	0.000815 J	0.000764 J	0.000969 J	0.000604 J	NA	**0.0033**
Potassium	mg/L	**4.87**	**4.87**	**2.79**	**2.63**	**2.72**	**1.19**	**1.44**	**1.55**	**1.15**	**1.33**	**1.27**	**1.02**	**1.42**
Selenium	mg/L	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011	<0.0011	NA	NA	NA	<0.0011	<0.0011
Silver	mg/L	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	<0.0002	<0.0002
Sodium	mg/L	**609**	**685**	**313**	**126**	**229**	**30.8**	**38.7**	**37.1**	**27.6**	**30.4**	**29.9**	**8.45**	**6.20**
Strontium	mg/L	**1.01**	**1.22**	**0.819**	**0.409**	**0.575**	**0.174**	**0.161**	**0.153**	**0.123**	**0.130**	**0.138**	**0.167**	**0.186**
Vanadium		**0.00687**	**0.0058**	0.00214 J	0.00123 J	0.00214 J	0.00483 J	0.00160 J	0.00248 J	0.00314 J	0.00297 J	0.000908 J	NA	**0.00830**
Zinc	mg/L	0.00256 J	**0.00468**	0.00222 J	**0.00412**	0.00299 J	**0.0638**	<0.002	**0.0438**	**0.00694**	**0.00635**	0.00267 J	**0.0466**	**0.209**
Anions/Water Quality Parameters														
Bicarbonate Alkalinity	mg/L	**104**	**148**	**111**	**130**	**205**	**48.8**	**44.4**	**40.9**	**38.3**	**36.3**	**37.7**	**159**	**67.3**
Bromide	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Carbonate Alkalinity	mg/L	<5	<3.5	<3.5	<3	<3	<5	<5	<3.5	<3.5	<3	<3	<5	<3.5
Chloride	mg/L	**620**	**1,160**	**509**	**230**	**394**	**35.9**	**37.8**	**38.3**	**33.6**	**31.2**	**34.5**	**6.45**	**5.60**
Sulfate	mg/L	**96.2**	**391**	**340**	**92.3**	**80.1**	**16.1**	**16.6**	**21.7**	**24.6**	**20.2**	**18.6**	**2.97**	**13.3**
Total Dissolved Solids (T	mg/L	**2,280**	**2,600**	**1,140**	**552**	**1,390**	**180**	**120**	**140**	**150**	**100**	**120**	**320**	**70.0**
pH	SI	8.37 H	7.98 H	7.75 H	7.21 H	7.46 H	7.38 H	7.05 H	7.44 H	7.50 H	7.56 H	7.56 H	NA	7.82 H
Sulfides														
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	**1.83**	**3.40**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulfide	mg/L	<1.7	<1.7	<1.2	1.72 J	**3.20**	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1	<1.7
Volatile Organic Compounds														
Benzene	mg/L	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000460	<0.0002	0.00034 J	0.00059 J
Ethylbenzene	mg/L	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000385	<0.0003	**0.00180**	**0.0020**
Toluene	mg/L	<0.0002	<0.0002	<0.0002	<0.000475	0.00031 J	0.00051 J	<0.0002	<0.0002	<0.0002	<0.000475	<0.0002	0.00055 J	**0.0018**
m,p-Xylene	mg/L	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00124	<0.0005	0.0020 J	**0.0024**
o-Xylene	mg/L	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.000502	<0.0003	<0.0003	0.00052 J
Xylenes, Total	mg/L	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00124	<0.0003	**0.00200**	**0.0029**
TPH Fractions														
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002	<0.002	<0.002	<0.025	<0.025	<0.002	<0.002
Aliphatics >C16-C35	mg/L	<0.008	<0.008	<0.008	<0.025	<0.025	<0.008	**0.0405**	<0.008	<0.008	<0.025	<0.025	<0.008	**0.0217**
Aromatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.1	<0.0333	<0.01	<0.01	<0.01	<0.01	<0.1	<0.0333	**0.0285**	<0.01
Aromatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	<0.001
Aromatics >C12-C16	mg/L	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004	<0.004	<0.004	<0.025	<0.025	<0.004	<0.004
Aromatics >C16-C21	mg/L	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003	<0.003	<0.003	<0.025	<0.025	<0.003	<0.003
Aromatics >C21-C35	mg/L	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009	<0.009	<0.009	<0.025	<0.025	<0.009	<0.009

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 2
Surface Water Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

LDNR Sample No.		PPG 7B BS							LDNR 2		Central Pond	LDNR 20	BS 24-oily water
Sample Date		2/16/23	5/18/23	9/18/23	12/12/23	3/28/24	6/19/24	9/26/24	1/25/23	1/9/24	1/25/23	3/9/23	2/26/24
Sample Interval (ft)		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Constituent	**Units**	**Bubble Site (Surface Water)**							**Surface Water**				
Total Metals													
Arsenic	mg/L	0.0202 J	<0.0004	0.000799 J	<0.002	0.00136 J	<0.002	<0.002	0.00141 J	NA	0.00192 J	0.00109 J	NA
Barium	mg/L	**1.23**	**0.118**	**3.71**	**1.04**	**1.48**	**2.38**	**0.345**	**0.0832**	NA	**0.146**	**0.43**	NA
Cadmium	mg/L	<0.01	<0.0002	0.000336 J	<0.001	NA	NA	NA	<0.0002	NA	<0.0004	<0.0002	NA
Calcium	mg/L	**141**	**23.8**	**65.6**	**61.9**	**46.4**	**62.3**	**37.9**	**58.2**	NA	**149**	**8.98**	NA
Chromium	mg/L	0.114 J	0.00175 J	0.000523 J	0.00341 J	**0.00659**	0.00373 J	0.00525 J	0.00101 J	NA	0.00458 J	<0.0004	NA
Iron	mg/L	3.34 J	**0.98**	**1.43**	**1.35**	**1.29**	**2.4**	0.285 J	**0.207**	NA	**2.07**	0.148 J	NA
Lead	mg/L	<0.03	**0.00245**	**0.00300**	0.00409 J	0.00110 J	0.00442 J	<0.003	<0.0006	NA	<0.00120	<0.0006	NA
Magnesium	mg/L	2.85 J	**1.73**	**1.78**	**1.77**	**1.97**	**1.90**	**1.19**	**5.44**	NA	**37.8**	**1.6**	NA
Manganese	mg/L	**0.509**	**0.161**	**0.211**	**0.324**	**0.215**	**0.333**	**0.21**	**0.00934**	NA	**0.847**	**0.0163**	NA
Mercury	mg/L	<0.00003	**0.000358**	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	NA	<0.00003	<0.00003	NA
Nickel	mg/L	NA	**0.00417**	**0.00268**	0.00858 J	**0.0067**	0.00728 J	0.00572 J	NA	NA	NA	NA	NA
Potassium	mg/L	1.78 J	**1.30**	**2.13**	**3.58**	**1.00**	**1.30**	**1.51**	**2.86**	NA	**3.22**	**1.2**	NA
Selenium	mg/L	<0.055	<0.0011	0.00156 J	<0.0055	NA	NA	NA	<0.0011	NA	<0.0022	<0.0011	NA
Silver	mg/L	<0.01	<0.0002	<0.0002	<0.001	NA	NA	NA	<0.0002	NA	<0.0004	<0.0002	NA
Sodium	mg/L	**26,400**	**1,390**	**27,400**	**11,200**	**5,420**	**11,400**	**4,080**	**158**	NA	**1,080**	**27.5**	NA
Strontium	mg/L	**0.678**	**0.160**	**0.683**	**0.427**	**0.606**	**0.630**	**0.342**	**0.341**	NA	**0.941**	**0.134**	NA
Vanadium		NA	0.00113 J	<0.0006	<0.003	0.00447 J	<0.003	<0.003	NA	NA	NA	NA	NA
Zinc	mg/L	**1.97**	**0.451**	**0.291**	**0.427**	**0.259**	**0.618**	**0.621**	**0.0153**	NA	**0.0258**	<0.002	NA
Anions/Water Quality Parameters													
Bicarbonate Alkalinity	mg/L	**128**	**78.4**	**241**	**112**	**152**	**153**	**109**	**210**	NA	**495**	**37.4**	NA
Bromide	mg/L	<1.5	<0.06	<1.5	<0.3	<0.300	**5.87**	<0.150	<0.03	<0.03	<0.06	<0.03	NA
Carbonate Alkalinity	mg/L	<5	<5	<5	<3.5	<3.5	<3.0	<3.0	<5	NA	<5	<5	NA
Chloride	mg/L	**55,900**	**2,400**	**48,000**	**16,500**	**8,540**	**16,300**	**5,810**	**215**	**149**	**2,090**	**32**	**400**
Sulfate	mg/L	**243**	**14.2**	**155**	**57.0**	**24.9**	**40.6**	**25.5**	**92.1**	**47.5**	**183**	**17.2**	**285**
Total Dissolved Solids (T	mg/L	**97,400**	**4,840**	**67,200**	**45,200**	**12,300**	**23,600**	**6,060**	**498**	**406**	**3,600**	**148**	**1,060**
pH	SI	NA	7.65 H	7.93 H	7.34 H	7.93 H	8.11 H	7.98 H	NA	7.37 H	NA	NA	NA
Sulfides													
Hydrogen Sulfide	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	<0.5	<0.5	NA
Sulfide	mg/L	<1	<1.7	<1.7	<1.7	<1.2	<1.2	<1.2	<1	NA	<1	<1.7	NA
Volatile Organic Compounds													
Benzene	mg/L	0.00075 J	<0.0002	0.00080 J	**0.0030**	0.00038 J	<0.000460	<0.0002	<0.0002	NA	<0.0002	<0.0002	NA
Ethylbenzene	mg/L	**0.0023**	<0.0003	0.00086 J	**0.0034**	<0.0003	<0.000385	<0.0003	<0.0003	NA	<0.0003	<0.0003	NA
Toluene	mg/L	0.0073 J	<0.0002	<0.0002	**0.0010**	<0.0002	<0.000475	<0.0002	<0.0002	NA	<0.0002	<0.0002	NA
m,p-Xylene	mg/L	**0.0030**	<0.0005	0.0013 J	**0.0061**	<0.0005	<0.00124	<0.0005	<0.0005	NA	<0.0005	<0.0005	NA
o-Xylene	mg/L	**0.0020**	<0.0003	**0.0010**	**0.0045**	<0.0003	0.000531 J	<0.0003	<0.0003	NA	<0.0003	<0.0003	NA
Xylenes, Total	mg/L	**0.0050**	<0.0003	**0.0024**	**0.011**	<0.0003	<0.00124	<0.0003	<0.0003	NA	<0.0003	<0.0003	NA
TPH Fractions													NA
Aliphatics >C6-C8	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	NA	<0.01	<0.01	NA
Aliphatics >C8-C10	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	NA	<0.01	<0.01	NA
Aliphatics >C10-C12	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	NA	<0.001	<0.001	NA
Aliphatics >C12-C16	mg/L	<0.002	<0.002	<0.002	<0.002	**0.0242**	<0.025	<0.025	<0.002	NA	<0.002	<0.002	NA
Aliphatics >C16-C35	mg/L	**0.239**	<0.008	**0.137**	**0.0824**	**0.0992**	<0.025	<0.025	<0.008	NA	<0.008	<0.008	NA
Aromatics >C8-C10	mg/L	**0.0192**	<0.01	<0.01	<0.01	<0.01	<0.1	<0.333	<0.01	NA	<0.01	**0.012**	NA
Aromatics >C10-C12	mg/L	**0.00551**	<0.001	<0.001	<0.001	<0.001	<0.025	<0.025	<0.001	NA	<0.001	<0.001	NA
Aromatics >C12-C16	mg/L	**0.0225**	<0.004	<0.004	<0.004	**0.0137**	<0.025	<0.025	<0.004	NA	<0.004	<0.004	NA
Aromatics >C16-C21	mg/L	**0.0188**	<0.003	<0.003	<0.003	**0.0145**	<0.025	<0.025	<0.003	NA	<0.003	<0.003	NA
Aromatics >C21-C35	mg/L	**0.079**	<0.009	<0.009	<0.009	**0.0217**	<0.025	<0.025	<0.009	NA	<0.009	<0.009	NA

Notes

J - Estimated Value reported below the detection limit.

H - pH is received at the lab outside of hold time (15 min from sampling).

< - Not Detected at the reporting limit shown.

Bolded values deteted in the sample

Table 3
Central Lake Water Column Profile
Sulphur Dome
Calcasieu Parish, Louisiana

1/30/2023	LDNR #4 (water depth 2.55 ft)				
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
0.5	6.14	1317	31	17.5	NR
2.55	6.3	1321	-4	17.1	NR

5/22/2023	LDNR #5 (water depth 5.0 ft)				
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
0	6.95	1509	59	30.1	1058
1	6.95	1513	69	30.1	1058
2	6.96	1515	77	30	1057
3	6.94	1513	83	29.7	1059
4	6.96	1513	84	29.6	1057
5	6.77	1522	-64	28.7	1065

6/15/2023	13:55	Water Column Station (water depth 5.2 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.55	1665	113	34.3	1238
3	7.02	1671	137	34.7	1241
5	7.52	1692	39	33.7	1254

6/16/2023	12:58	Water Column Station (water depth 5.2 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.67	1792	205	33.5	1256
3	7.70	1786	174	33.3	1254
5	7.30	1902	-240	33.4	1352

6/23/2023	8:13	Water Column Station (water depth 5.2 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.53	NR	165	27.7	NR
3	7.56	NR	155	291	1291
5	7.54	1814	-186	29.8	1282

6/30/2023	13:40	Water Column Station (water depth 5.15 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.60	1883	64	36.1	1322
3	7.50	1878	84	34.8	1325
5	7.50	1876	94	35.0	1320

7/7/2023	8:45	Water Column Station (water depth 5.0 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.60	1910	103	29.3	1355
3	7.61	1951	107	29.6	1389
5	7.59	1916	113	29.7	1364

7/14/2023	13:00	Water Column Station (water depth 5.0 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.85	NR	161	35.2	NR
3	7.65	2032	148	34.2	1449
5	7.59	1962	140	331	1529

7/21/2023	9:10	Water Column Station (water depth 4.8 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.72	2123	168	31.6	1515
3	7.67	2117	162	31.7	1514
5	7.70	2104	155	31.4	1509

Table 3
Central Lake Water Column Profile
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7/28/2023	7:15	Water Column Station (water depth 5.8 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.66	2238	168	29.3	1609
3	7.61	2106	165	29.9	1513
5	7.48	2185	151	29.5	1568

8/4/2023	9:25	Water Column Station (water depth 5.6 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.62	2328	161	32.4	1678
3	7.56	2317	149	32.5	1669
5	7.47	2317	79	32.6	1670

8/11/2023	7:30	Water Column Station (water depth 5.45 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.64	2648	101	29.7	1935
3	7.75	2588	18	30.6	1888
5	7.58	2593	-147	31.1	1885

8/18/2023	7:30	Water Column Station (water depth 5.25 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.71	2871	141	28.9	2116
3	7.58	2813	103	30.1	2067
5	7.54	2747	-48	30.3	2023

8/25/2023	9:00	Water Column Station (water depth 4.1 ft.)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.71	3071	149	29.6	2253
3	7.69	3034	121	30.3	2215
5	7.58	3038	-8	30.2	2219

9/1/2023	10:00	Water Column Station (water depth NR)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	8.06	3233	34	31.1	2371
3	8.10	3203	25	29.4	2357
5	7.62	3216	-13	29.6	2366

9/8/2023	7:45	Water Column Station (water depth NR)			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	8.06	3373	109	28.9	2486
3	8.16	3337	87	30.1	2458
5	7.87	3341	-32	30.4	2457

9/15/2023	7:20	Water Column Station (water depth 3'5")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	8.04	3554	149	25	2650
3	7.96	3416	144	26.2	2545
5	7.55	3426	-81	26.2	2549

9/22/2023	8:15	Water Column Station (water depth 4'3")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	8.19	3625	146	28.6	2699
3	8.23	3570	131	28.7	2652
5	7.50	3587	-114	28.5	2660

Table 3
Central Lake Water Column Profile
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9/29/2023	7:30	Water Column Station (water depth 4')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.43	3614	152	26.5	2684
3	7.42	3601	121	27.1	2689
5	7.41	3603	-32	27.3	2685

10/6/2023	8:00	Water Column Station (water depth 4'3")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.57	3584	103	24.3	2681
3	7.44	3572	96	24.8	2671
5	7.55	3558	10	24.7	2660

10/13/2023	9:42	Water Column Station (water depth 4'3")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.95	3555	146	22.8	2665
3	7.92	3641	148	23.6	2733
5	7.94	3646	135	23.7	2737

10/20/2023	8:00	Water Column Station (water depth 4'2")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.88	3775	109	21	2854
3	7.97	3738	116	21.4	2823
5	7.92	3770	119	21.7	2846

10/27/2023	8:42	Water Column Station (water depth 4'2")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	8.19	4035	80	26.9	3036
3	7.96	3990	26.7	26.7	2995
5	7.92	3946	26.3	26.3	2962

11/3/2023	9:00	Water Column Station (water depth 4')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.83	4025	208	16.2	3086
3	7.77	4060	161	19.3	3116
5	7.72	4035	186	15.7	3088

11/10/2023	10:17	Water Column Station (water depth 4')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.7	4150	164	22.1	3160
3	7.63	4179	128	22	3187
5	7.55	4161	2	21.8	3178

11/17/2023	9:45	Water Column Station (water depth 4'2")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.52	4115	192	20.5	3144
3	7.45	4119	160	20.9	3143
5	7.46	4113	84	20.8	3136

11/24/2023	8:01	Water Column Station (water depth 4')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.75	4238	181	15.6	3758
3	7.76	4220	146	15.4	3239
5	7.70	4209	96	15.3	3240

Table 3
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12/1/2023	8:00	Water Column Station (water depth 4'3")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.85	4132	-41	17.8	3171
3	7.81	4144	21	17.3	3173
5	7.75	4204	39	17.6	3237

12/8/2023	9:00	Water Column Station (water depth 4'3")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.66	4275	141	16.7	3288
3	7.72	4175	109	16.7	3203
5	7.61	4276	75	16.9	3294

12/15/2023	9:00	Water Column Station (water depth 4'4")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.62	4287	-66	14.5	3311
3	7.77	4301	-32	15.1	3315
5	7.68	4300	5	15.5	3310

12/22/2023	8:30	Water Column Station (water depth 4'5")			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.74	4296	65	18.1	3311
3	7.76	4305	32	18	28
5	7.69	4289	77	17.9	3301

1/4/2024	13:35	Water Column Station (water depth 5')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.63	4040	115	15.7	3092
3	7.59	4041	97	14.3	2101
5	7.70	4044	227	14.9	3127

1/12/2024	8:48	Water Column Station (water depth 5.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	5.50	3236	69	15.6	2486
3	7.51	3303	61	16.0	2544
5	7.54	3268	89	16.3	2509

1/18/2024	12:39	Water Column Station (water depth 5.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.57	3141	94	11.6	2416
3	7.54	3235	69	10.7	2492
5	7.50	3240	-45	10.3	2507

1/26/2024	9:08	Water Column Station (water depth 6.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.35	2464	-21	16.3	1860
3	7.28	2616	13	15.7	1988
5	7.33	2731	-114	15.0	2081

2/2/2024	9:03	Water Column Station (water depth 5.8')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.19	1578	68	16.7	1151
3	7.14	1616	62	16.2	1183
5	7.39	2359	-132	17.4	1773

Table 3
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2/9/2024	8:35	Water Column Station (water depth 5.5')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.34	1570	58	18.7	1143
3	7.27	1572	76	18.5	1144
5	7.29	1607	14	18.5	1171

2/16/2024	9:00	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.42	1690	184	17.8	1237
3	7.31	1664	111	18.2	1217
5	7.35	1700	47	17.1	1245

2/23/2024	12:45	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.75	1766	146	20.5	1289
3	7.65	1767	137	21.1	1286
5	7.70	1782	115	20.9	1299

3/1/2024	9:06	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.48	1900	182	15.7	1405
3	7.4	1887	133	15.4	1396
5	7.32	1910	55	15.5	1414

3/7/2024	12:40	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.59	1956	164	24.0	1443
3	7.53	1950	108	24.6	1431
5	7.59	1988	-17	24.1	1463

3/14/2024	8:40	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.69	2059	171	22.6	1519
3	7.63	2044	152	22.4	1507
5	7.53	2073	-135	22.5	1532

3/22/2024	9:20	Water Column Station (water depth 5.2')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.53	2078	189	18.7	1543
3	7.48	2076	133	18.5	1545
5	7.54	2107	-117	19.0	1548

3/28/2024	9:26	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.68	2120	37	18.4	1578
3	7.57	2117	80	18.6	1575
5	7.50	2118	-90	18.5	1580

4/5/2024	10:15	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.87	2212	92	23.3	1636
3	7.69	2211	102	22.9	1639
5	7.63	2271	-172	23.4	1684

Table 3
Central Lake Water Column Profile
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4/12/2024	7:38	Water Column Station (water depth 5.5')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.57	2021	135	20.5	1498
3	7.45	2034	116	20.0	1506
5	7.53	2031	-38	20.7	1503

4/19/2024	8:00	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.92	2125	37	26.0	1566
3	7.68	2126	4	26.2	1568
5	7.16	2197	-254	26.0	1625

4/26/2024	9:52	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.69	2181	107	25.5	1612
3	7.62	2169	103	25.3	1605
5	7.45	2199	-104	25.1	1626

5/3/2024	11:45	Water Column Station (water depth 6.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.49	1761	81	23.7	1280
3	7.57	1795	62	25.0	1305
5	7.42	1823	-104	23.9	1233

5/10/2024	10:33	Water Column Station (water depth 6.8')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.39	1503	29	27.8	1074
3	7.34	1589	-21	27.4	1141
5	6.96	2119	-251	26.8	1557

5/16/2024	8:20	Water Column Station (water depth 6.9')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.37	1461	50	26.8	1042
3	7.19	1465	7	26.6	1045
5	6.88	1868	-225	26.2	1362

5/24/2024	8:10	Water Column Station (water depth 6.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.49	1314	120	27.7	929.4
3	7.46	1324	-15	27.9	937.1
5	7.12	1730	-226	26.1	1252

5/31/2024	7:34	Water Column Station (water depth 6.1')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.41	1282	80	25.4	907.2
3	7.29	1283	26	25.7	908.7
5	7.13	1420	-195	25.9	1011

6/7/2024	8:41	Water Column Station (water depth 6.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.39	1079	73	28.0	756.0
3	7.17	1051	-48	27.9	736.0
5	6.48	1547	-223	28.2	1107

Table 3
Central Lake Water Column Profile
Sulphur Dome
Calcasieu Parish, Louisiana

6/14/2024	7:40	Water Column Station (water depth 6.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.40	1070	24	28.7	753.0
3	7.35	1063	-53	28.8	29.3
5	7.12	1540	-185	29.3	1098

6/21/2024	9:03	Water Column Station (water depth 5.6')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.42	1154	64	29.1	810.2
3	7.44	1152	44	29.2	808.6
5	7.34	1207	-50	29.4	848.2

6/28/2024	10:31	Water Column Station (water depth 5.7')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.39	1220	-9	32.0	845.3
3	7.34	1208	-36	32.0	844.3
5	7.18	1232	-122	32.1	861.7

7/5/2024	10:00	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.31	1231	102	31	892.3
3	7.26	1268	-25	31.2	891.1
5	6.90	1527	-203	30.9	1088

7/12/2024	10:00	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.36	1344	101	29.1	947.6
3	7.35	1341	69	29.5	947.2
5	7.17	1438	-154	29.8	1020

7/18/2024	12:49	Water Column Station (water depth 5.1')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.41	1421	77	30.8	1004
3	7.33	1414	43	30.5	998.5
5	7.13	1463	-93	30.6	1036

8/2/2024	8:22	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.25	1267	90	30.7	892.5
3	7.22	1256	-69	30.4	885.6
5	7.08	1566	-161	30.0	1117

8/16/2024	10:26	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.33	1459	122	33.3	1031
3	7.24	1457	-16	33.4	1028
5	7.06	1571	-106	33.9	1115

8/23/2024	8:05	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.35	1555	82	30.1	1109
3	7.33	1552	50	30.3	1106
5	6.98	1639	-89	30.3	1174

Table 3
Central Lake Water Column Profile
Sulphur Dome
Calcasieu Parish, Louisiana

8/30/2024	12:45	Water Column Station (water depth 5.3')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.37	1592	90	27.5	1144
3	7.36	1600	30	27.8	1144
5	7.28	1612	51	277	1156

9/6/2024	7:50	Water Column Station (water depth 5.8')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.34	1596	156	26.6	1145
3	7.36	1541	42	27.1	1103
5	7.23	1569	38	27.2	1123

9/12/2024	8:15	Water Column Station (water depth 5.1')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.25	1521	228	25.4	1092
3	7.23	1519	130	25.6	1090
5	7.19	1560	62	25.8	1121

9/20/2024	10:00	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.31	1627	176	30.4	1168
3	7.29	1618	117	30.6	1157
5	6.79	1867	-99	31.0	1352

9/27/2024	8:50	Water Column Station (water depth 5.0')			
Depth (ft)	pH	SC (uS/cm)	ORP (mV)	Temp (°C)	TDS (ppm)
1	7.27	1719	237	26.7	1244
3	7.38	1715	178	26.5	1238
5	7.31	1744	125	26.9	1260

Notes:
Readings were recorded with an Ultrameter II, hand-held meter
NR - Not Recorded

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 1							LDNR 3						
	Sample ID														
	Sample Date	1/25/23*	5/18/23*	9/20/23	12/11/23	3/26/24*	6/17/24	9/23/24	1/30/203*	5/22/23	9/18/23	12/11/23	3/26/24	6/18/24	9/24/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)													
Carbon Monoxide	mol%	ND	**0.18**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	**0.0053**	ND	NA	**0.0049**	**0.0039**	NA	ND	ND	ND	ND	**0.0041**	**0.0029**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.35**	**1.31**	**0.0612**	**0.669**	**1.42**	**0.115**	**0.0972**	**1.04**	**0.0448**	**0.917**	**0.543**	**0.648**	**0.0704**	**0.0701**
Oxygen	mol%	**0.47**	**17.47**	**0.96**	**14.23**	ND	**1.88**	**1.39**	**8.91**	**0.086**	**20.38**	**2.87**	**14.22**	**0.65**	**0.86**
Nitrogen	mol%	**61.78**	**64.5**	**4.41**	**61.50**	**88.37**	**8.29**	**6.90**	**45.65**	**2.11**	**77.1**	**15.08**	**52.31**	**4.10**	**4.73**
Carbon Dioxide	mol%	**7.47**	**6.37**	**2.57**	**0.46**	**10.05**	**2.15**	**2.14**	**3.58**	**2.14**	**0.089**	**2.02**	**0.68**	**2.15**	**2.61**
Methane	mol%	**28.45**	**10.00**	**89.73**	**22.56**	**0.137**	**85.46**	**87.36**	**40.41**	**94.46**	**1.49**	**78.53**	**31.77**	**91.97**	**90.70**
Ethane	mol%	**0.287**	**0.110**	**1.50**	**0.382**	**0.0014**	**1.38**	**1.40**	**0.261**	**0.673**	**0.0108**	**0.575**	**0.221**	**0.646**	**0.631**
Ethylene	mol%	ND	ND	**0.0006**	**0.0002**	ND	**0.0009**	**0.0005**	**0.0097**	**0.0286**	**0.003**	**0.0178**	**0.0075**	**0.0139**	**0.0148**
Propane	mol%	**0.0926**	**0.0412**	**0.414**	**0.107**	**0.0075**	**0.391**	**0.396**	**0.0702**	**0.198**	**0.0036**	**0.159**	**0.0619**	**0.176**	**0.173**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0216**	**0.0070**	**0.0977**	**0.0255**	**0.0037**	**0.0942**	**0.0950**	**0.0259**	**0.0751**	**0.0013**	**0.0608**	**0.0238**	**0.0680**	**0.0668**
N-butane	mol%	**0.0216**	**0.0070**	**0.106**	**0.0277**	**0.0028**	**0.100**	**0.0992**	**0.0189**	**0.0647**	**0.0016**	**0.0519**	**0.0197**	**0.0568**	**0.0555**
Iso-pentane	mol%	**0.0083**	**0.0017**	**0.0410**	**0.0112**	**0.0014**	**0.0398**	**0.0389**	**0.0083**	**0.0356**	**0.0009**	**0.0286**	**0.0108**	**0.0316**	**0.0315**
N-pentane	mol%	**0.0055**	**0.0012**	**0.0308**	**0.0093**	**0.0005**	**0.0306**	**0.0262**	**0.0051**	**0.0262**	**0.0008**	**0.0223**	**0.0081**	**0.0231**	**0.0231**
Hexanes +	mol%	**0.0449**	**0.0064**	**0.0685**	**0.0227**	**0.0103**	**0.0686**	**0.0590**	**0.0083**	**0.0548**	**0.0020**	**0.0411**	**0.0154**	**0.0405**	**0.0422**
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-33.03**	**-24.86**	**-39.25**	**-39.09**	NA	**-39.17**	**-39.10**	**-34.2**	**-34.66**	**-31.24**	**-33.88**	**-33.97**	**-34.38**	**-33.50**
δD (CH_4)	‰	**-129.6**	**-81.1**	**-158.6**	**-158.7**	NA	**-153.9**	**-151.3**	**-147.2**	**-141.0**	**-138.7**	**-151.6**	**-141.1**	**-139.8**	**-143.1**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	**592.8**

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4

Gas Data Summary

Sulphur Dome

Calcasieu Parish, Louisiana

	Sample Location	LDNR 4							LDNR 5						
	Sample ID														
	Sample Date	1/30/23*	5/22/23	9/20/23	12/11/23	3/26/24	6/18/24	9/23/24	1/30/23*	5/17/23*	9/20/23	12/13/23	3/26/24	6/18/24	9/24/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)													
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	**0.099**	ND	ND	ND	ND	ND
Helium	mol%	NA	ND	ND	ND	ND	**0.0035**	**0.0038**	NA	NA	ND	ND	ND	**0.0043**	**0.0037**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.905**	**0.0360**	**0.550**	**0.0266**	**0.0872**	**0.122**	**0.0302**	**1.54**	**1.12**	**0.540**	**0.131**	**0.797**	**0.0794**	**0.130**
Oxygen	mol%	**15.5**	**0.16**	**8.93**	**0.23**	**1.63**	**2.16**	**0.15**	**21.68**	**15.89**	**11.11**	**2.44**	**17.71**	**0.88**	**2.26**
Nitrogen	mol%	**65.33**	**1.87**	**41.87**	**1.73**	**6.81**	**8.95**	**1.72**	**69.85**	**73.83**	**40.07**	**8.90**	**64.69**	**4.57**	**9.71**
Carbon Dioxide	mol%	**1.29**	**1.56**	**1.55**	**1.75**	**1.39**	**1.47**	**1.90**	**2.47**	**2.79**	**0.52**	**0.59**	**0.17**	**1.41**	**1.61**
Methane	mol%	**16.69**	**94.48**	**46.17**	**94.44**	**88.44**	**85.66**	**94.39**	**4.39**	**6.20**	**46.82**	**86.34**	**16.34**	**91.38**	**84.76**
Ethane	mol%	**0.209**	**1.30**	**0.64**	**1.27**	**1.14**	**1.14**	**1.26**	**0.0472**	**0.0488**	**0.579**	**1.08**	**0.192**	**1.08**	**1.02**
Ethylene	mol%	**0.0067**	**0.0540**	**0.0223**	**0.0447**	**0.0409**	**0.0374**	**0.0379**	**0.0022**	**0.0042**	**0.0874**	**0.0362**	**0.0132**	**0.0967**	**0.0538**
Propane	mol%	**0.0445**	**0.294**	**0.144**	**0.277**	**0.250**	**0.243**	**0.264**	**0.0128**	**0.0120**	**0.1590**	**0.272**	**0.0495**	**0.280**	**0.252**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0115**	**0.0819**	**0.0408**	**0.0790**	**0.0723**	**0.0717**	**0.0787**	**0.0033**	**0.0030**	**0.0406**	**0.0741**	**0.0134**	**0.0763**	**0.0704**
N-butane	mol%	**0.0091**	**0.0757**	**0.0372**	**0.0720**	**0.0651**	**0.0643**	**0.0710**	**0.0028**	**0.0021**	**0.0387**	**0.0685**	**0.0121**	**0.0700**	**0.0639**
Iso-pentane	mol%	**0.0032**	**0.0318**	**0.0158**	**0.0301**	**0.0274**	**0.0273**	**0.0309**	**0.0006**	**0.0006**	**0.0133**	**0.0250**	**0.0045**	**0.0255**	**0.0240**
N-pentane	mol%	**0.0019**	**0.0220**	**0.0111**	**0.0205**	**0.0185**	**0.0185**	**0.0214**	ND	ND	**0.0092**	**0.0165**	**0.0030**	**0.0165**	**0.0154**
Hexanes +	mol%	**0.0029**	**0.0341**	**0.0173**	**0.0291**	**0.0265**	**0.0251**	**0.0309**	**0.0039**	**0.0009**	**0.0148**	**0.0261**	**0.0054**	**0.0232**	**0.0215**
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-38.37**	**-38.5**	**-37.03**	**-37.69**	**-37.29**	**-37.20**	**-37.06**	**-35.45**	**-39.21**	**-37.16**	**-37.36**	**-36.87**	**-36.81**	**-36.55**
δD (CH_4)	‰	**-160.5**	**-151.3**	**-145.0**	**-158.0**	**-149.6**	**-151.8**	**-150.7**	**-143**	**-159.8**	**-147.9**	**-154.9**	**-146.6**	**-146.8**	**-144.4**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	**114.0**	NA	NA	NA	NA	NA	NA	**3.0**

Notes:

Bolded values deteted in the sample.

ND - Not Detected

NA - Not Analyzed (insufficient volume)

* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		LDNR 6							LDNR 7						
Sample ID															
Sample Date		2/28/23*	5/18/23*	9/20/23*	12/12/23	3/26/24	6/18/24	9/25/24	2/28/23*	5/17/23*	9/20/23*	12/12/23	3/27/24	6/20/24	9/25/24
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)													
Carbon Monoxide	mol%	ND	**0.22**	**0.093**	ND	ND	ND	ND	ND	**0.31**	**0.15**	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	ND	ND	**0.004**	**0.0034**	NA	NA	NA	ND	ND	**0.0036**	**0.0029**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.68**	**1.63**	**1.06**	**0.108**	**0.873**	**0.0859**	**0.132**	**1.66**	**1.64**	**1.2**	**0.365**	**0.140**	**0.174**	**0.188**
Oxygen	mol%	**21.86**	**21.22**	**23.75**	**1.78**	**19.55**	**0.76**	**2.31**	**22.94**	**17.64**	**24.65**	**6.63**	**2.62**	**1.64**	**2.98**
Nitrogen	mol%	**72.96**	**72.30**	**73.08**	**6.58**	**71.76**	**4.99**	**9.65**	**71.73**	**73.45**	**73.16**	**25.40**	**6.52**	**9.54**	**12.94**
Carbon Dioxide	mol%	**3.22**	**4.39**	**0.15**	**0.75**	**0.13**	**1.95**	**1.68**	**3.27**	**6.46**	**0.40**	**0.42**	**0.47**	**1.16**	**1.47**
Methane	mol%	**0.278**	**0.234**	**1.84**	**89.64**	**7.59**	**91.05**	**85.13**	**0.398**	**0.493**	**0.427**	**64.68**	**87.04**	**84.19**	**79.30**
Ethane	mol%	**0.0042**	**0.0014**	**0.0112**	**0.669**	**0.0549**	**0.698**	**0.663**	**0.0050**	**0.0057**	**0.0100**	**2.22**	**2.82**	**2.92**	**2.76**
Ethylene	mol%	ND	ND	**0.0007**	**0.0363**	**0.003**	**0.0394**	**0.0386**	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	**0.0014**	**0.0041**	**0.235**	**0.0185**	**0.226**	**0.208**	**0.0006**	ND	**0.0013**	**0.176**	**0.235**	**0.227**	**0.216**
Propylene	mol%	ND	ND	ND	ND	ND	**0.0001**	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	**0.0014**	**0.0831**	**0.0067**	**0.0823**	**0.0776**	ND	ND	ND	**0.0452**	**0.0631**	**0.0574**	**0.0551**
N-butane	mol%	ND	ND	**0.0010**	**0.0644**	**0.0053**	**0.0643**	**0.0621**	ND	ND	ND	**0.0365**	**0.0506**	**0.0449**	**0.0451**
Iso-pentane	mol%	ND	ND	**0.0003**	**0.0270**	**0.0023**	**0.0263**	**0.0263**	ND	ND	ND	**0.0135**	**0.0189**	**0.0149**	**0.0163**
N-pentane	mol%	ND	ND	ND	**0.0142**	**0.0013**	**0.014**	**0.0143**	ND	ND	ND	**0.0072**	**0.0101**	**0.0075**	**0.0086**
Hexanes +	mol%	**0.0012**	**0.0028**	**0.0018**	**0.0142**	**0.0028**	**0.0135**	**0.0147**	**0.0013**	**0.0041**	**0.0024**	**0.0111**	**0.0148**	**0.0093**	**0.0128**
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	NA	NA	**-34.8**	**-34.83**	**-33.32**	**-35.08**	**-34.72**	**-36.7**	**-48.9**	**-39.5**	**-45.00**	**-43.87**	**-44.24**	**-44.45**
δD (CH_4)	‰	NA	NA	**-144**	**-150.0**	**-140.2**	**-142.8**	**-143.0**	NA	NA	NA	**-189.4**	**-183.8**	**-181.8**	**-181.9**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 8						LDNR 9					
	Sample ID												
	Sample Date	2/28/23*	5/18/23*	9/20/23*	3/27/24	6/18/24*	9/24/24	2/10/23*	5/18/23*	12/13/23	3/28/24*	6/19/24*	9/26/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)											
Carbon Monoxide	mol%	ND	**0.33**	**0.16**	ND	ND	ND	**0.034**	**0.26**	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	ND	NA	**0.0037**	NA	NA	ND	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.31**	**1.71**	**1.19**	**0.117**	**1.08**	**0.132**	**1.14**	**1.50**	**0.700**	**1.27**	**1.63**	**0.971**
Oxygen	mol%	**16.43**	**12.99**	**27.26**	**1.92**	**17.86**	**1.77**	**22.32**	**30.16**	**15.35**	**39.56**	**16.68**	**28.76**
Nitrogen	mol%	**57.26**	**75.89**	**71.03**	**5.57**	**77.32**	**8.71**	**75.05**	**63.88**	**62.75**	**56.50**	**70.29**	**70.18**
Carbon Dioxide	mol%	**2.88**	**7.63**	**0.28**	**0.45**	**1.92**	**1.87**	**0.61**	**2.70**	**0.63**	**1.58**	**6.95**	**0.023**
Methane	mol%	**21.89**	**1.44**	**0.0769**	**88.62**	**1.77**	**86.20**	**0.845**	**1.49**	**20.40**	**1.08**	**4.45**	**0.0682**
Ethane	mol%	**0.146**	**0.0040**	**0.0020**	**2.92**	**0.0432**	**0.877**	**0.0022**	**0.0032**	**0.121**	**0.0070**	**0.0079**	ND
Ethylene	mol%	**0.0044**	ND	ND	ND	ND	ND	ND	ND	**0.0008**	ND	ND	ND
Propane	mol%	**0.0482**	**0.0008**	**0.0007**	**0.242**	**0.0035**	**0.221**	**0.0004**	ND	**0.0238**	**0.0009**	**0.0012**	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	**0.0003**	ND	ND	ND
Iso-butane	mol%	**0.0158**	ND	ND	**0.0652**	**0.0009**	**0.0726**	ND	ND	**0.0114**	ND	ND	ND
N-butane	mol%	**0.0108**	ND	ND	**0.0521**	**0.0006**	**0.0629**	ND	ND	**0.0051**	ND	ND	ND
Iso-pentane	mol%	**0.0034**	ND	ND	**0.0199**	ND	**0.0303**	ND	ND	**0.0037**	ND	ND	ND
N-pentane	mol%	**0.0015**	ND	ND	**0.0108**	ND	**0.0211**	ND	ND	**0.0022**	ND	ND	ND
Hexanes +	mol%	**0.0030**	**0.0040**	**0.0031**	**0.0161**	**0.0005**	**0.0336**	**0.0007**	**0.0040**	**0.0065**	ND	ND	ND
Stable Isotopes													
$\delta^{13}C$ (CH_4)	‰	**-34.96**	**-60.3**	NA	**-43.45**	**-42.7**	**-36.06**	**-33.1**	**-38.9**	**-33.44**	**-31.2**	**-49.5**	NA
δD (CH_4)	‰	**-143.1**	NA	NA	**-184.2**	**-175**	**-144.0**	**-81**	NA	**-147.5**	NA	**-232**	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide													
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	**0.5**	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4

Gas Data Summary

Sulphur Dome

Calcasieu Parish, Louisiana

	Sample Location	LDNR 10							LDNR 12						
	Sample ID														
	Sample Date	2/10/23*	5/22/23	9/20/23	12/12/23	3/28/24	6/19/24	9/26/24	2/28/23*	5/18/23*	9/20/23*	12/12/23	3/27/24	6/18/24*	9/23/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)													
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	**0.23**	**0.13**	ND	ND	ND	ND
Helium	mol%	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	NA	**0.0026**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.837**	**0.970**	**0.910**	**0.748**	**0.942**	**0.952**	**0.935**	**1.62**	**1.68**	**1.12**	**0.315**	**0.101**	**1.53**	**0.206**
Oxygen	mol%	**14.68**	**21.72**	**16.81**	**15.67**	**21.12**	**20.95**	**21.03**	**19.99**	**20.99**	**24.67**	**6.00**	**1.74**	**15.6**	**3.42**
Nitrogen	mol%	**59.75**	**77.00**	**75.02**	**68.50**	**77.75**	**77.51**	**77.82**	**70.00**	**72.41**	**73.77**	**25.63**	**5.25**	**72.05**	**13.28**
Carbon Dioxide	mol%	**1.04**	**0.062**	**1.69**	**1.55**	**0.037**	**0.15**	**0.074**	**3.51**	**4.56**	**0.24**	**0.47**	**0.61**	**8.76**	**0.95**
Methane	mol%	**23.55**	**0.247**	**5.56**	**13.48**	**0.148**	**0.440**	**0.146**	**4.72**	**0.122**	**0.0650**	**65.00**	**88.92**	**2.02**	**79.04**
Ethane	mol%	**0.12**	**0.0004**	**0.0030**	**0.0470**	**0.0006**	**0.0003**	**0.0001**	**0.138**	**0.0014**	**0.0015**	**2.29**	**2.98**	**0.0361**	**2.74**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	**0.0084**	ND	**0.0004**	**0.0017**	ND	ND	ND	**0.0108**	**0.0007**	**0.0004**	**0.177**	**0.240**	**0.0039**	**0.215**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0112**	ND	**0.0009**	**0.0028**	ND	ND	ND	**0.0025**	ND	ND	**0.0459**	**0.0629**	ND	**0.0587**
N-butane	mol%	ND	ND	**0.0002**	ND	ND	ND	ND	**0.0019**	ND	ND	**0.0359**	**0.0487**	ND	**0.0461**
Iso-pentane	mol%	**0.0019**	ND	**0.0002**	**0.0004**	ND	ND	ND	ND	ND	ND	**0.0137**	**0.0185**	ND	**0.0181**
N-pentane	mol%	ND	ND	**0.0001**	ND	ND	ND	ND	ND	ND	ND	**0.0073**	**0.0096**	ND	**0.0096**
Hexanes +	mol%	**0.0012**	**0.0001**	**0.0006**	**0.0005**	**0.0004**	**0.0002**	**0.0001**	**0.0038**	**0.0058**	**0.0023**	**0.0106**	**0.0148**	**0.0016**	**0.0141**
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-35.63**	**-25.78**	**-22.20**	**-30.02**	**-36.5**	**-21.31**	**-33.4**	**-44.36**	NA	NA	**-44.36**	**-43.89**	**-40.7**	**-43.90**
δD (CH_4)	‰	**-151.4**	**-107**	**-103.2**	**-134.9**	NA	**-74**	NA	**-181**	NA	NA	**-182.8**	**-179.9**	NA	**-178.0**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	<0.1

Notes:

Bolded values deteted in the sample.

ND - Not Detected

NA - Not Analyzed (insufficient volume)

* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		LDNR 13				LDNR 14				LDNR 17						
Sample ID																
Sample Date		12/13/23*	3/27/24	6/20/24*	9/25/24*	12/13/23*	3/27/24*	6/20/24*	9/25/24*	2/28/23*	5/17/23*	9/20/23*	12/13/23	3/26/24	6/18/24	9/24/24
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)														
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.17**	**0.3**	ND	ND	ND	ND
Helium	mol%	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	**0.0042**	**0.0027**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.22**	**0.370**	**1.67**	**1.50**	**1.48**	**1.65**	**1.73**	**1.36**	**1.69**	**1.57**	**1.13**	**0.213**	**0.890**	**0.109**	**0.125**
Oxygen	mol%	**24.49**	**0.61**	**15.76**	**13.10**	**29.11**	**22.53**	**14.97**	**18.57**	**16.22**	**17.08**	**31.25**	**2.84**	**19.89**	**1.07**	**1.72**
Nitrogen	mol%	**73.05**	**19.41**	**74.89**	**78.18**	**66.00**	**72.05**	**75.85**	**74.08**	**74.92**	**66.25**	**50.78**	**13.63**	**73.23**	**5.85**	**8.66**
Carbon Dioxide	mol%	**1.17**	**6.77**	**7.22**	**6.46**	**1.98**	**3.55**	**6.98**	**5.80**	**5.42**	**7.42**	**0.7**	**1.02**	**0.14**	**1.78**	**2.23**
Methane	mol%	**0.0670**	**72.72**	**0.471**	**0.755**	**1.41**	**0.221**	**0.460**	**0.177**	**1.73**	**7.42**	**15.57**	**80.49**	**5.73**	**89.20**	**85.33**
Ethane	mol%	**0.0011**	**0.119**	ND	ND	**0.0231**	**0.0007**	ND	ND	**0.0148**	**0.0714**	**0.225**	**1.45**	**0.0970**	**1.59**	**1.54**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0002**	ND	ND	ND
Propane	mol%	ND	**0.0002**	ND	ND	ND	ND	ND	ND	**0.0021**	**0.0090**	**0.0279**	**0.197**	**0.0136**	**0.221**	**0.214**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	**0.0004**	ND	ND	ND	ND	ND	ND	ND	**0.0025**	**0.0071**	**0.0620**	**0.0044**	**0.0692**	**0.0688**
N-butane	mol%	ND	**0.0001**	ND	ND	ND	ND	ND	ND	ND	**0.0016**	**0.0049**	**0.0448**	**0.0033**	**0.0511**	**0.0528**
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	**0.0013**	ND	ND	**0.0015**	**0.0205**	**0.0016**	**0.0220**	**0.0238**
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0009**	**0.0118**	**0.0010**	**0.0126**	**0.0143**
Hexanes +	mol%	ND	**0.0008**	**0.0017**	**0.003**	ND	**0.0015**	**0.0021**	**0.0011**	**0.0028**	**0.0025**	**0.0052**	**0.0187**	**0.0029**	**0.0176**	**0.0218**
Stable Isotopes																
$\delta^{13}C$ (CH_4)	‰	NA	**-67.98**	NA	**-54.1**	**-66.5**	NA	NA	NA	**-44.2**	**-39.07**	**-40.39**	**-40.70**	**-36.79**	**-39.55**	**-39.10**
δD (CH_4)	‰	NA	**-277.1**	NA	NA	NA	NA	NA	NA	**-175**	**-179**	**-161.9**	**-168.2**	**-151.9**	**-158.2**	**-155.4**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**87.0**

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 18							LDNR 19					
	Sample ID													
	Sample Date	2/28/23*	5/17/23*	9/20/23*	12/13/23	3/26/24*	6/20/24	9/25/24	2/28/23*	5/18/23*	12/11/23	3/28/24*	6/19/24*	9/26/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)												
Carbon Monoxide	mol%	ND	**0.066**	**0.27**	ND	ND	ND	ND	ND	**0.26**	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	ND	ND	**0.0039**	**0.0032**	NA	NA	ND	NA	NA	ND
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.21**	**1.09**	**1.28**	**0.134**	**0.895**	**0.101**	**0.198**	**0.976**	**1.50**	**0.535**	**1.17**	**1.04**	**0.0935**
Oxygen	mol%	**14.38**	**16.45**	**34.44**	**2.48**	**20.03**	**1.13**	**2.90**	**29.18**	**28.03**	**10.73**	**38.25**	**20.21**	**1.70**
Nitrogen	mol%	**52.67**	**79.94**	**61.19**	**9.16**	**73.61**	**5.76**	**12.20**	**43.27**	**63.87**	**40.42**	**58.83**	**70.18**	**6.95**
Carbon Dioxide	mol%	**3.08**	**1.67**	**0.3**	**0.71**	**0.086**	**1.51**	**1.42**	**2.83**	**2.92**	**1.27**	**0.34**	**1.80**	**6.88**
Methane	mol%	**28.32**	**0.784**	**2.49**	**86.23**	**5.31**	**90.17**	**82.03**	**23.62**	**3.40**	**46.71**	**1.40**	**6.74**	**83.77**
Ethane	mol%	**0.240**	**0.0028**	**0.0208**	**0.863**	**0.0470**	**0.882**	**0.848**	**0.106**	**0.0130**	**0.280**	**0.0089**	**0.0312**	**0.508**
Ethylene	mol%	ND	ND	ND	ND	**0.0019**	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	**0.0616**	**0.0007**	**0.0052**	**0.228**	**0.0125**	**0.230**	**0.204**	**0.093**	**0.0007**	**0.0258**	ND	**0.0032**	**0.0458**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.176**	**0.0002**	**0.0015**	**0.0711**	**0.0038**	**0.0741**	**0.0685**	**0.0034**	ND	**0.0164**	ND	**0.0016**	**0.0317**
N-butane	mol%	**0.132**	ND	**0.0012**	**0.0607**	**0.0033**	**0.0630**	**0.0562**	ND	ND	**0.0001**	ND	ND	**0.0001**
Iso-pentane	mol%	**0.0044**	ND	ND	**0.0266**	**0.0015**	**0.0286**	**0.0281**	**0.0004**	ND	**0.0044**	ND	ND	**0.0083**
N-pentane	mol%	**0.0024**	ND	ND	**0.0178**	**0.0010**	**0.0190**	**0.0188**	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0044**	**0.0006**	**0.0045**	**0.0235**	**0.0030**	**0.0260**	**0.0274**	**0.0021**	**0.0036**	**0.0095**	**0.0006**	**0.0006**	**0.0216**
Stable Isotopes														
$\delta^{13}C$ (CH_4)	‰	**-36.62**	**-46.8**	**-37.5**	**-36.57**	**-35.54**	**-36.14**	**-35.99**	**-32.77**	**-36.1**	**-36.27**	**-32.3**	**-30.27**	**-36.13**
δD (CH_4)	‰	**-154.9**	**-200**	**-145**	**-154.0**	**-144.1**	**-145.7**	**-145.3**	**-109.4**	**-139**	**-146.2**	**-120**	**-113.6**	**-148.3**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide														
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	**1.3**	NA	NA	NA	NA	NA	**110.0**

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 21						LDNR 22						
	Sample ID													
	Sample Date	3/30/23*	5/17/23*	9/20/23*	12/13/23*	6/20/24	9/25/24	3/30/23*	5/17/23*	9/20/23*	12/12/23	3/26/24	6/20/24	9/24/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)												
Carbon Monoxide	mol%	**0.11**	**0.25**	**0.12**	ND	ND	ND	**0.098**	**0.11**	**0.3**	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	**0.0048**	**0.0026**	NA	NA	NA	ND	ND	**0.0039**	ND
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.29**	**1.61**	**1.09**	**1.42**	**0.0755**	**0.311**	**1.43**	**1.25**	**1.33**	**0.126**	**0.875**	**0.190**	**0.471**
Oxygen	mol%	**20.65**	**18.44**	**26.85**	**25.21**	**0.86**	**5.34**	**20.90**	**16.79**	**32.90**	**2.25**	**19.51**	**1.22**	**9.69**
Nitrogen	mol%	**75.31**	**73.33**	**69.78**	**63.27**	**4.58**	**22.01**	**71.96**	**79.02**	**62.91**	**8.79**	**71.62**	**10.70**	**36.72**
Carbon Dioxide	mol%	**1.77**	**5.64**	**0.16**	**2.79**	**4.90**	**2.22**	**2.40**	**2.54**	**0.47**	**0.69**	**0.12**	**1.24**	**1.04**
Methane	mol%	**0.860**	**0.721**	**1.970**	**7.230**	**88.48**	**69.07**	**3.16**	**0.288**	**2.06**	**86.33**	**7.73**	**85.05**	**51.03**
Ethane	mol%	**0.0080**	**0.0015**	**0.0194**	**0.0665**	**0.890**	**0.812**	**0.410**	**0.0010**	**0.0253**	**1.34**	**0.111**	**1.20**	**0.778**
Ethylene	mol%	ND	ND	ND	ND	ND	**0.0046**	**0.0005**	ND	ND	**0.0184**	**0.0014**	**0.0044**	**0.0082**
Propane	mol%	**0.0011**	**0.0008**	**0.0032**	**0.0087**	**0.108**	**0.116**	**0.0064**	**0.0003**	**0.0045**	**0.233**	**0.0182**	**0.203**	**0.134**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0002**	ND	ND	ND
Iso-butane	mol%	**0.0004**	ND	**0.001**	**0.0036**	**0.0571**	**0.0501**	**0.0015**	ND	**0.0012**	**0.0735**	**0.0057**	**0.0658**	**0.0428**
N-butane	mol%	ND	ND	**0.0005**	ND	**0.0044**	**0.0208**	**0.0010**	ND	**0.0010**	**0.0646**	**0.0050**	**0.0541**	**0.0373**
Iso-pentane	mol%	ND	ND	ND	**0.0007**	**0.0215**	**0.0193**	ND	ND	ND	**0.0296**	**0.0024**	**0.0255**	**0.0179**
N-pentane	mol%	ND	ND	ND	ND	**0.0003**	**0.0062**	ND	ND	ND	**0.0208**	**0.0017**	**0.0167**	**0.0128**
Hexanes +	mol%	**0.0018**	**0.0031**	**0.0017**	ND	**0.0193**	**0.0184**	**0.0020**	**0.0010**	**0.0073**	**0.0324**	**0.0034**	**0.0243**	**0.0209**
Stable Isotopes														
$\delta^{13}C$ (CH_4)	‰	**-36.2**	**-48.0**	**-38.0**	**-38.00**	**-38.02**	**-37.51**	**-38.40**	**-44.40**	**-37.00**	**-38.50**	**-38.67**	**-39.86**	**-37.63**
δD (CH_4)	‰	**-122**	NA	**150**	**-147**	**-146.3**	**-148.3**	**-156**	NA	NA	**-154.7**	**-155.2**	**-163.7**	**-150.6**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide														
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	**0.4**	NA	NA	NA	NA	NA	NA	<0.1

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 23							LDNR 24					
	Sample ID													
	Sample Date	3/30/23*	5/18/23*	9/20/23*	12/12/23*	3/27/24	6/20/24	9/24/24	5/22/23	9/20/23	12/11/23	3/26/24	6/18/24	9/23/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)												
Carbon Monoxide	mol%	**0.040**	**0.25**	**0.24**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	ND	**0.0036**	**0.0028**	ND	ND	ND	ND	ND	**0.0028**
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.09**	**1.68**	**1.40**	**1.42**	**0.0492**	**0.114**	**0.259**	**0.0271**	**0.210**	**0.0269**	**0.491**	**0.780**	**0.276**
Oxygen	mol%	**21.18**	**14.37**	**30.67**	**28.99**	**0.34**	**0.87**	**4.93**	**0.13**	**4.05**	**0.27**	**10.72**	**17.30**	**5.98**
Nitrogen	mol%	**76.89**	**74.50**	**65.61**	**66.73**	**2.41**	**6.01**	**19.61**	**1.37**	**16.04**	**1.66**	**39.50**	**62.91**	**22.31**
Carbon Dioxide	mol%	**0.69**	**6.71**	**0.45**	**2.30**	**1.31**	**1.40**	**1.67**	**2.26**	**2.35**	**2.51**	**1.23**	**0.61**	**2.17**
Methane	mol%	**0.105**	**2.47**	**1.61**	**0.548**	**94.26**	**90.06**	**72.25**	**94.64**	**76.08**	**94.02**	**47.33**	**18.12**	**68.19**
Ethane	mol%	**0.0013**	**0.0124**	**0.0131**	**0.0081**	**1.13**	**1.09**	**0.911**	**0.884**	**0.729**	**0.869**	**0.422**	**0.171**	**0.642**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	**0.150**	**0.110**	**0.133**	**0.0657**	**0.0236**	**0.0784**
Propane	mol%	**0.0002**	**0.0044**	**0.0036**	**0.0008**	**0.253**	**0.238**	**0.188**	**0.270**	**0.214**	**0.253**	**0.123**	**0.0471**	**0.175**
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	**0.0015**	**0.0011**	ND	**0.0809**	**0.0774**	**0.0622**	**0.0828**	**0.0663**	**0.0799**	**0.0388**	**0.0147**	**0.0561**
N-butane	mol%	ND	**0.0007**	**0.0008**	ND	**0.0690**	**0.0642**	**0.0512**	**0.0784**	**0.0623**	**0.0747**	**0.0351**	**0.0133**	**0.0507**
Iso-pentane	mol%	ND	ND	ND	ND	**0.0352**	**0.0319**	**0.0273**	**0.0347**	**0.0282**	**0.0347**	**0.0159**	**0.0061**	**0.0240**
N-pentane	mol%	ND	ND	ND	ND	**0.0246**	**0.0217**	**0.0189**	**0.0259**	**0.0214**	**0.0264**	**0.0120**	**0.0047**	**0.0183**
Hexanes +	mol%	**0.0007**	**0.0037**	**0.0038**	ND	**0.0338**	**0.0259**	**0.0241**	**0.0460**	**0.0378**	**0.0445**	**0.0188**	**0.0065**	**0.0270**
Stable Isotopes														
$\delta^{13}C$ (CH_4)	‰	**-34.0**	**-33.0**	**-37.6**	**-35.7**	**-36.56**	**-36.75**	**-36.70**	**-35.9**	**-35.52**	**-35.28**	**-35.56**	**-35.61**	**-35.36**
δD (CH_4)	‰	NA	**-99**	NA	NA	**-153.0**	**-148.5**	**-149.1**	**-146.8**	**-145.7**	**-154.0**	**-147.6**	**-140.5**	**-143.2**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide														
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	**106.1**

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		LDNR 25					LDNR 26						LDNR 27			
Sample ID																
Sample Date		9/20/23*	12/12/23*	3/27/24*	6/20/24*	9/25/24	7/17/23*	9/18/23*	12/11/23	3/26/24	6/18/24	9/24/24	1/31/24*	3/28/24	6/19/24	9/26/24
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)														
Carbon Monoxide	mol%	**0.20**	ND	ND	ND	ND	ND	**0.063**	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	ND	NA	NA	ND	**0.0052**	**0.0054**	**0.0039**	NA	ND	ND	ND
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.30**	**1.46**	**0.946**	**1.69**	**0.208**	**1.46**	**1.29**	**0.213**	**0.157**	**0.163**	**0.250**	**1.71**	**0.942**	**0.952**	**0.935**
Oxygen	mol%	**28.32**	**33.30**	**14.82**	**16.42**	**3.21**	**18.56**	**17.19**	**2.25**	**1.23**	**1.55**	**3.67**	**23.25**	**21.22**	**21.43**	**21.07**
Nitrogen	mol%	**69.58**	**63.82**	**41.82**	**73.51**	**13.75**	**66.42**	**75.71**	**13.90**	**8.79**	**9.60**	**17.12**	**73.42**	**77.78**	**77.53**	**77.94**
Carbon Dioxide	mol%	**0.40**	**1.18**	**2.04**	**7.71**	**2.15**	**7.87**	**3.62**	**1.39**	**1.14**	**1.30**	**1.23**	**1.51**	**0.052**	**0.091**	**0.048**
Methane	mol%	**0.195**	**0.233**	**39.39**	**0.671**	**78.54**	**5.68**	**2.12**	**81.36**	**87.76**	**86.46**	**76.87**	**0.106**	**0.0063**	**0.0012**	**0.0005**
Ethane	mol%	**0.0027**	**0.0038**	**0.909**	ND	**1.92**	**0.0076**	**0.0116**	**0.723**	**0.748**	**0.766**	**0.702**	**0.0007**	ND	ND	ND
Ethylene	mol%	ND	ND	ND	ND	**0.0001**	ND	ND	ND	ND	ND	**0.0001**	ND	ND	ND	ND
Propane	mol%	ND	ND	**0.0432**	ND	**0.131**	ND	**0.0009**	**0.0634**	**0.0634**	**0.0600**	**0.0562**	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	**0.0134**	ND	**0.0366**	ND	**0.0006**	**0.0736**	**0.0779**	**0.0751**	**0.0705**	ND	ND	ND	ND
N-butane	mol%	ND	ND	**0.0072**	ND	**0.0295**	ND	ND	**0.0030**	**0.0027**	**0.0025**	**0.0028**	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	**0.0021**	ND	**0.0114**	ND	ND	**0.0150**	**0.0155**	**0.0143**	**0.0143**	ND	ND	ND	ND
N-pentane	mol%	ND	ND	**0.0010**	ND	**0.0064**	ND	ND	**0.0001**	**0.0001**	**0.0002**	**0.0003**	ND	ND	ND	ND
Hexanes +	mol%	**0.0038**	ND	**0.0046**	ND	**0.0090**	**0.0025**	**0.0027**	**0.0065**	**0.0074**	**0.0057**	**0.0065**	ND	**0.0003**	**0.0001**	ND
Stable Isotopes																
$\delta^{13}C$ (CH_4)	‰	NA	NA	**-51.54**	**-44.5**	**-52.81**	**-48.74**	**-40.8**	**-38.38**	**-38.14**	**-38.31**	**-37.82**	NA	NA	NA	NA
δD (CH_4)	‰	NA	NA	**-191.4**	NA	**-204.0**	**-242**	**-157**	**-155.6**	**-153.6**	**-151.6**	**-143.3**	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	<0.1

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	LDNR 28				SN 67269						
	Sample ID					PPG 7A BS						
	Sample Date	1/24/24*	3/28/24	6/19/24	9/26/24	1/25/23*	5/17/23	9/20/23	12/11/23	3/28/24	6/19/24	9/26/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)										
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Helium	mol%	NA	ND	ND	ND	NA	ND	ND	ND	ND	**0.0048**	NA
Hydrogen	mol%	ND	ND	**0.0027**	ND	ND	ND	ND	ND	ND	**0.0070**	NA
Argon	mol%	**0.300**	**0.942**	**0.945**	**0.936**	**0.744**	**0.823**	**0.754**	**0.215**	**0.927**	**0.0740**	NA
Oxygen	mol%	**1.95**	**21.21**	**21.24**	**21.08**	**16.39**	**18.25**	**15.34**	**3.92**	**20.72**	**0.89**	NA
Nitrogen	mol%	**16.00**	**77.75**	**76.86**	**77.93**	**41.21**	**66.37**	**61.16**	**16.65**	**76.20**	**5.39**	NA
Carbon Dioxide	mol%	**0.62**	**0.057**	**0.053**	**0.043**	**0.29**	**0.07**	**0.39**	**0.034**	**0.047**	**0.092**	NA
Methane	mol%	**80.47**	**0.0434**	**0.893**	**0.0071**	**40.83**	**14.3**	**22.05**	**78.13**	**2.08**	**92.37**	NA
Ethane	mol%	**0.477**	**0.0003**	**0.0042**	ND	**0.397**	**0.132**	**0.216**	**0.733**	**0.0159**	**0.820**	NA
Ethylene	mol%	ND	ND	ND	ND	**0.0013**	**0.0001**	ND	**0.0007**	ND	**0.0002**	NA
Propane	mol%	**0.107**	ND	**0.0007**	ND	**0.099**	**0.0372**	**0.0607**	**0.207**	**0.0047**	**0.231**	NA
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Iso-butane	mol%	**0.0466**	ND	**0.0003**	ND	**0.0286**	**0.013**	**0.0207**	**0.0699**	**0.0017**	**0.0782**	NA
N-butane	mol%	**0.0173**	ND	**0.0002**	ND	**0.0106**	**0.005**	**0.0080**	**0.0258**	**0.0006**	**0.0275**	NA
Iso-pentane	mol%	**0.0051**	ND	ND	ND	**0.013**	**0.0011**	**0.0018**	**0.0052**	**0.0001**	**0.0060**	NA
N-pentane	mol%	**0.0014**	ND	ND	ND	ND	**0.0003**	**0.0005**	**0.0013**	ND	**0.0015**	NA
Hexanes +	mol%	**0.0007**	**0.0002**	**0.0002**	ND	**0.003**	**0.0022**	**0.0018**	**0.0037**	**0.0003**	**0.0037**	NA
Stable Isotopes												
$\delta^{13}C$ (CH_4)	‰	**-34.64**	NA	**-40.53**	NA	**-35.6**	**-34.94**	**-33.32**	**-31.20**	**-34.17**	**-35.42**	NA
δD (CH_4)	‰	**-152.3**	NA	**-144.9**	NA	**-150.3**	**-144.2**	**-141.4**	**-146.7**	**-141.9**	**-143.4**	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Hydrogen Sulfide												
Hydrogen Sulfide	ppmw	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	<0.1

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	SN 67270						Central Pond	LDNR 20
	Sample ID	PPG 7B BS							
	Sample Date	2/16/23*	5/18/23*	9/18/23*	3/28/24*	6/19/24*	9/26/24*	1/25/23*	3/9/23*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Surface Water (Bubble Site)						Surface Water	
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	**0.26**	**0.023**
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.955**	**1.58**	**0.969**	**1.40**	**1.80**	**1.31**	**1.98**	**1.01**
Oxygen	mol%	**19.64**	**25.16**	**19.27**	**17.34**	**19.76**	**24.26**	**0.41**	**22.40**
Nitrogen	mol%	**76.59**	**68.50**	**79.45**	**79.85**	**70.63**	**67.17**	**84.79**	**76.38**
Carbon Dioxide	mol%	**0.51**	**1.69**	**0.30**	**0.64**	**1.36**	**1.68**	**12.25**	**0.16**
Methane	mol%	**2.26**	**3.00**	**0.0036**	**0.756**	**6.42**	**5.57**	**0.302**	**0.0245**
Ethane	mol%	**0.0333**	**0.0427**	**0.0001**	**0.0011**	**0.0018**	**0.0085**	**0.0015**	ND
Ethylene	mol%	**0.0011**	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	**0.0085**	**0.0192**	**0.0013**	**0.0026**	**0.0038**	**0.0013**	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0011**	**0.0043**	**0.0007**	**0.0026**	**0.0089**	ND	ND	ND
N-butane	mol%	**0.0024**	**0.0043**	**0.0012**	**0.0037**	**0.0082**	ND	ND	ND
Iso-pentane	mol%	**0.0005**	ND	**0.0003**	**0.0016**	**0.0051**	ND	ND	ND
N-pentane	mol%	**0.0004**	ND	**0.0002**	**0.0005**	ND	ND	ND	ND
Hexanes +	mol%	**0.001**	**0.0028**	**0.0009**	**0.0011**	**0.002**	ND	**0.0037**	**0.005**
Stable Isotopes									
$\delta^{13}C$ (CH_4)	‰	**-46.02**	**-38.20**	NA	**-74.1**	**-65.2**	**-39.8**	NA	NA
δD (CH_4)	‰	**-183.6**	**-117.0**	NA	NA	**-275**	**-140**	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide									
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	WW 11																	
	Sample ID	019-580																	
	Sample Date	1/26/23*	3/30/23*	4/27/23*	5/22/23*	6/16/23*	8/22/23*	9/20/23*	11/28/23*	12/14/23*	1/31/24*	2/20/24*	3/28/24*	4/23/24*	5/22/24*	6/18/24*	7/25/24*	8/21/24*	9/25/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells																	
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.64**	**1.17**	**1.66**	**1.76**	**1.48**	**1.75**	**1.66**	**1.48**	**1.46**	**1.79**	**1.76**	**1.44**	**1.79**	**1.75**	**1.62**	**1.51**	**1.62**	**1.35**
Oxygen	mol%	**5.59**	**14.38**	**9.66**	**11.60**	**17.51**	**8.22**	**6.23**	**7.14**	**7.85**	**2.29**	**3.83**	**8.42**	**3.73**	**6.47**	**8.27**	**10.10**	**9.08**	**11.39**
Nitrogen	mol%	**79.08**	**80.66**	**76.17**	**72.37**	**73.84**	**75.69**	**80.38**	**84.09**	**83.27**	**84.45**	**83.13**	**82.49**	**83.25**	**79.17**	**77.83**	**76.68**	**77.68**	**78.10**
Carbon Dioxide	mol%	**13.23**	**3.75**	**11.99**	**14.23**	**7.13**	**13.80**	**11.30**	**7.24**	**7.39**	**11.42**	**11.27**	**7.62**	**11.18**	**12.59**	**12.23**	**11.66**	**11.58**	**9.13**
Methane	mol%	**0.456**	**0.0421**	**0.517**	**0.0348**	**0.0321**	**0.532**	**0.433**	**0.0336**	**0.0315**	**0.0504**	**0.0065**	**0.0339**	**0.055**	**0.0116**	**0.042**	**0.0454**	**0.0426**	**0.0255**
Ethane	mol%	ND	ND	**0.0007**	ND	**0.0005**	ND	ND	ND	ND	**0.0006**	ND	ND	**0.0008**	ND	ND	ND	**0.0007**	ND
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0042**	**0.0008**	**0.0039**	**0.0030**	**0.0041**	**0.0031**	**0.0031**	**0.0127**	**0.0004**	ND	**0.0018**	**0.0009**	**0.0011**	ND	ND	ND	ND	**0.0010**
Stable Isotopes																			
$\delta^{13}C$ (CH_4)	‰	**-56.4**	NA	**-59.6**	NA	NA	**-56.6**	**-56.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
δD (CH_4)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	**-19.21**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																			
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		WW 13														
Sample ID		019-582														
Sample Date		1/26/23*	3/30/23*	4/27/23*	5/22/23*	6/16/23*	8/22/23*	9/20/23*	11/28/23*	12/14/23*	1/31/24*	2/20/24*	3/28/24*	4/24/24*	5/22/24*	9/26/24*
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells														
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.76**	**1.27**	**1.61**	**1.27**	**1.56**	**1.58**	**1.72**	**1.48**	**1.31**	**1.81**	**1.62**	**1.46**	**1.41**	**1.82**	**1.27**
Oxygen	mol%	**5.03**	**13.10**	**8.07**	**4.94**	**16.60**	**10.74**	**3.50**	**8.07**	**6.70**	**1.84**	**3.70**	**8.46**	**3.23**	**3.33**	**3.62**
Nitrogen	mol%	**82.36**	**80.92**	**80.13**	**88.21**	**73.36**	**74.73**	**79.67**	**83.08**	**84.49**	**84.35**	**84.88**	**81.68**	**87.79**	**83.12**	**86.96**
Carbon Dioxide	mol%	**10.83**	**4.66**	**9.64**	**5.26**	**8.46**	**12.76**	**13.9**	**7.32**	**7.46**	**11.93**	**9.59**	**8.35**	**7.52**	**11.71**	**8.12**
Methane	mol%	**0.0186**	**0.0516**	**0.547**	**0.313**	**0.0154**	**0.189**	**1.21**	**0.0474**	**0.0367**	**0.0713**	**0.207**	**0.0443**	**0.0469**	**0.0208**	**0.0246**
Ethane	mol%	ND	ND	**0.0022**	**0.0012**	ND	ND	**0.0029**	ND	ND	**0.0007**	**0.0009**	ND	**0.0005**	ND	ND
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0018**	**0.0007**	**0.0027**	**0.0012**	**0.0023**	**0.0040**	**0.0034**	**0.0021**	ND	ND	**0.0052**	**0.0010**	ND	**0.0007**	ND
Stable Isotopes																
$\delta^{13}C$ (CH_4)	‰	NA	NA	**-62.3**	NA	NA	NA	**-57.9**	NA	NA	NA	NA	NA	NA	NA	NA
δD (CH_4)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	**-20.51**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	WW 12														
	Sample ID	019-995														
	Sample Date	1/26/23*	3/30/23*	4/27/23*	5/22/23*	6/16/23*	8/22/23*	11/28/23*	12/14/23*	1/31/24*	2/20/24*	3/28/24*	4/23/24*	5/22/24*	6/18/24*	9/25/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells														
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.75**	**1.29**	**1.61**	**1.77**	**1.60**	**1.55**	**1.62**	**1.81**	**1.85**	**1.74**	**1.80**	**1.65**	**1.70**	**1.64**	**1.17**
Oxygen	mol%	**6.3**	**11.66**	**11.53**	**10.41**	**14.54**	**11.52**	**6.19**	**3.26**	**3.02**	**5.49**	**4.57**	**7.24**	**9.33**	**11.06**	**6.59**
Nitrogen	mol%	**80.84**	**81.99**	**77.35**	**76.58**	**75.78**	**76.96**	**82.94**	**82.26**	**82.91**	**81.38**	**77.39**	**82.06**	**74.07**	**74.81**	**79.63**
Carbon Dioxide	mol%	**10.81**	**4.83**	**9.19**	**10.71**	**8.00**	**9.95**	**9.23**	**12.52**	**12.09**	**11.00**	**16.23**	**9.05**	**14.7**	**12.37**	**12.53**
Methane	mol%	**0.294**	**0.231**	**0.313**	**0.532**	**0.0701**	**0.0162**	**0.0129**	**0.151**	**0.124**	**0.385**	**0.0089**	**0.0118**	**0.191**	**0.115**	**0.0765**
Ethane	mol%	ND	**0.0005**	ND	ND	**0.0016**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	**0.0005**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0019**	**0.0018**	**0.0034**	**0.0020**	**0.0032**	**0.0031**	**0.0047**	ND	**0.0014**	**0.0013**	**0.0010**	ND	ND	ND	**0.0020**
Stable Isotopes																
$\delta^{13}C$ (CH_4)	‰	NA	**-56.6**	**-68.7**	**-78.7**	NA	NA	NA	NA	NA	**-78.0**	NA	NA	NA	NA	NA
δD (CH_4)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	**-20.47**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		WW 19																
Sample ID		019-1055																
Sample Date		1/26/23*	3/30/23*	4/27/23*	5/18/23*	6/16/23*	8/22/23*	9/20/23*	11/28/23*	12/14/23*	1/31/24*	2/20/24*	4/23/24*	5/22/24*	6/18/24*	7/24/24*	8/21/24*	9/25/24*
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells																
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.39**	**1.23**	**1.68**	**1.64**	**1.55**	**1.55**	**1.66**	**1.50**	**1.43**	**1.78**	**1.73**	**1.55**	**1.69**	**1.60**	**1.53**	**1.44**	**1.60**
Oxygen	mol%	**9.78**	**13.74**	**9.15**	**11.70**	**15.55**	**8.81**	**4.65**	**8.45**	**8.51**	**2.06**	**2.62**	**7.32**	**5.68**	**8.63**	**10.57**	**11.07**	**4.92**
Nitrogen	mol%	**82**	**80.18**	**78.32**	**76.17**	**75.03**	**79.23**	**77.74**	**82.32**	**80.06**	**83.87**	**82.03**	**82.3**	**80.44**	**75.01**	**74.86**	**73.88**	**78.43**
Carbon Dioxide	mol%	**6.53**	**4.67**	**10.43**	**10.09**	**7.82**	**10.04**	**15.52**	**7.64**	**9.71**	**11.85**	**13.20**	**8.57**	**11.80**	**14.38**	**12.68**	**13.13**	**14.69**
Methane	mol%	**0.3**	**0.180**	**0.411**	**0.396**	**0.049**	**0.369**	**0.423**	**0.0854**	**0.291**	**0.435**	**0.418**	**0.261**	**0.390**	**0.375**	**0.360**	**0.312**	**0.366**
Ethane	mol%	**0.0013**	**0.0007**	**0.0017**	**0.0021**	**0.0005**	**0.0016**	**0.0021**	ND	**0.0015**	**0.0018**	**0.0020**	**0.0012**	**0.0018**	**0.0015**	**0.0017**	**0.0031**	**0.0018**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0021**	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0017**	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0012**	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	UNK	ND
Hexanes +	mol%	**0.002**	**0.0015**	**0.0034**	**0.0021**	**0.0021**	**0.0027**	**0.0036**	**0.004**	ND	**0.0006**	**0.0040**	**0.0007**	ND	**0.001**	**0.0010**	**0.0014**	**0.0023**
Stable Isotopes																		
$\delta^{13}C$ (CH_4)	‰	**-53.9**	**-53.5**	**-52.7**	**-21.3**	NA	**-53.8**	**-52.8**	NA	**-51.2**	**-53.3**	**-52.8**	**-52.8**	**-52.1**	NA	**-52.2**	NA	NA
δD (CH_4)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	**-20.10**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																		
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	WW 40							
	Sample ID	019-1603							
	Sample Date	3/30/23*	5/18/23*	6/16/23*	9/19/23*	12/14/23*	1/31/24*	3/28/24*	5/23/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells							
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.26**	**1.57**	**1.56**	**1.12**	**1.77**	**1.51**	**1.95**	**1.71**
Oxygen	mol%	**11.67**	**10.06**	**13.05**	**15.46**	**5.29**	**8.5**	**3.05**	**6.74**
Nitrogen	mol%	**82.50**	**73.32**	**82.13**	**78.53**	**81.98**	**81.95**	**81.14**	**80.24**
Carbon Dioxide	mol%	**3.77**	**4.67**	**3.25**	**4.25**	**10.16**	**7.85**	**13.83**	**10.57**
Methane	mol%	**0.802**	**10.37**	**0.0095**	**0.641**	**0.799**	**0.193**	**0.0268**	**0.732**
Ethane	mol%	**0.0009**	**0.0075**	ND	**0.0014**	ND	**0.0004**	ND	**0.0011**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0013**	**0.0035**	**0.0010**	**0.0012**	ND	ND	ND	ND
Stable Isotopes									
$\delta^{13}C$ (CH_4)	‰	**-89.5**	**-57.53**	NA	**-60.3**	**-60.5**	NA	NA	**-65.2**
δD (CH_4)	‰	**-282**	**-110.9**	NA	**-125**	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide									
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		Cottages Well															
Sample ID		019-17636Z															
Sample Date		4/27/23*	5/18/23*	6/16/23*	7/17/23*	8/22/23*	9/20/23*	11/28/23*	12/14/23*	1/31/24*	2/20/24*	3/28/24*	4/23/24*	5/22/24*	7/25/24*	8/21/24*	9/25/24*
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Industrial Water Wells															
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	**0.071**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.0098**	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.43**	**1.58**	**1.33**	**1.50**	**1.34**	**1.35**	**1.68**	**1.73**	**1.79**	**1.72**	**1.26**	**0.96**	**1.74**	**1.22**	**1.51**	**1.21**
Oxygen	mol%	**20.30**	**17.31**	**18.77**	**16.60**	**13.82**	**10.78**	**4.95**	**2.30**	**2.05**	**2.41**	**10.17**	**18.84**	**4.85**	**24.90**	**12.38**	**2.79**
Nitrogen	mol%	**70.51**	**70.87**	**68.11**	**70.87**	**75.96**	**77.25**	**79.57**	**78.59**	**80.52**	**80.79**	**81.74**	**78.29**	**80.31**	**62.77**	**70.63**	**75.55**
Carbon Dioxide	mol%	**7.28**	**7.44**	**9.81**	**9.69**	**7.56**	**9.41**	**12.07**	**15.26**	**13.12**	**13.16**	**5.71**	**1.66**	**11.16**	**10.75**	**13.72**	**12.00**
Methane	mol%	**0.476**	**2.80**	**1.98**	**1.34**	**1.32**	**1.14**	**1.73**	**2.12**	**2.52**	**1.92**	**1.12**	**0.241**	**1.94**	**0.36**	**1.76**	**8.45**
Ethane	mol%	ND	ND	ND	ND	ND	**0.0017**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	**0.0009**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0015**	**0.0014**	**0.0030**	**0.0019**	**0.0030**	**0.0026**	**0.0039**	ND	ND	**0.0034**	**0.0006**	**0.0002**	**0.0008**	ND	ND	**0.0036**
Stable Isotopes																	
$\delta^{13}C$ (CH_4)	‰	**-76.1**	**-94.4**	**-93.2**	**-78.3**	**-80.4**	**-80.2**	**-79.1**	**-82.0**	**-84.1**	**-79.7**	**-89.7**	**-92.6**	**-80.0**	NA	**-78.9**	**-95.6**
δD (CH_4)	‰	NA	**-278**	**-265**	NA	**-164**	NA	**-159**	NA	**-198**	**-159**	**-231**	**-258**	**-155**	NA	NA	**-311**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	**-22.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																	
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	MW-1							
	Sample ID	MW-1-200							
	Sample Date	12/28/23*	3/27/24*	4/22/24*	5/21/24*	6/19/24*	7/23/24*	8/20/24*	9/26/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Monitoring Wells							
Carbon Monoxide	mol%	ND	ND	ND	NA	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.359**	**0.564**	**0.34**	**0.357**	**0.352**	**0.34**	**0.374**	**0.327**
Oxygen	mol%	**0.51**	**8.34**	**1.41**	**1.80**	**2.06**	**2.70**	**3.50**	**1.26**
Nitrogen	mol%	**16.92**	**39.44**	**14.49**	**15.41**	**14.85**	**15.01**	**16.05**	**14.22**
Carbon Dioxide	mol%	**0.55**	**0.25**	**0.35**	**0.33**	**0.48**	**0.46**	**0.51**	**0.81**
Methane	mol%	**81.63**	**51.39**	**83.37**	**82.07**	**82.23**	**81.46**	**79.43**	**83.34**
Ethane	mol%	**0.0323**	**0.0194**	**0.0322**	**0.0304**	**0.0326**	**0.0324**	**0.0395**	**0.0358**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	**0.0002**	ND	ND	ND	ND	ND	**0.0037**	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	ND	**0.0009**	ND
N-butane	mol%	ND	ND	ND	ND	ND	ND	**0.0017**	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	ND	**0.0009**	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	UNK	ND
Hexanes +	mol%	**0.0014**	**0.0003**	ND	**0.0002**	ND	ND	**0.0006**	ND
Stable Isotopes									
$\delta^{13}C$ (CH_4)	‰	**-56.2**	**-56.81**	**-56.68**	**-56.53**	**-55.65**	**-56.40**	**-56.31**	**-56.24**
δD (CH_4)	‰	**-192.1**	**-191.1**	**-195.8**	**-191.8**	**-187.6**	**-192.1**	**-188.5**	**-185.6**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide									
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	MW-1													
	Sample ID	MW-1-500							MW-1-700						
	Sample Date	3/27/24*	4/22/24*	5/21/24*	6/18/24*	7/23/24*	8/20/24*	9/23/24*	3/26/24*	4/22/24*	5/22/24*	6/19/24*	7/23/24*	8/20/24*	9/23/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Monitoring Wells													
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.85**	**1.36**	**1.34**	**1.23**	**1.16**	**1.23**	**1.13**	**1.60**	**1.67**	**1.26**	**1.51**	**1.42**	**1.33**	**1.33**
Oxygen	mol%	**3.31**	**3.67**	**11.28**	**6.84**	**9.14**	**11.33**	**4.35**	**2.01**	**3.12**	**11.64**	**5.82**	**8.58**	**13.05**	**6.51**
Nitrogen	mol%	**84.03**	**60.04**	**74.16**	**57.21**	**53.97**	**57.68**	**52.02**	**75.24**	**73.73**	**74.86**	**68.82**	**65.79**	**65.04**	**70.70**
Carbon Dioxide	mol%	**2.48**	**1.05**	**0.10**	**0.29**	**0.25**	**0.35**	**0.17**	**0.12**	**0.15**	**0.074**	**0.14**	**0.096**	**0.22**	**0.067**
Methane	mol%	**8.33**	**33.87**	**13.12**	**34.43**	**35.48**	**29.14**	**42.33**	**21.02**	**21.32**	**12.17**	**23.71**	**24.1**	**20.07**	**21.38**
Ethane	mol%	**0.0009**	ND	**0.0008**	**0.0007**	**0.0008**	**0.0065**	**0.0010**	**0.0043**	**0.0037**	**0.0017**	**0.0032**	**0.0035**	**0.0093**	**0.0027**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	ND	ND	ND	ND	ND	**0.0051**	ND	ND	ND	ND	ND	ND	**0.0057**	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	ND	ND	ND	ND	**0.0015**	ND	**0.0006**	**0.001**	**0.001**	**0.0019**	**0.002**	**0.0035**	**0.0020**
N-butane	mol%	ND	ND	ND	ND	ND	**0.0037**	ND	ND	ND	ND	ND	ND	**0.0039**	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	**0.0024**	**0.0007**	ND	ND	ND	ND	ND	**0.0024**	**0.0164**
N-pentane	mol%	ND	ND	ND	ND	ND	UNK	ND	ND	ND	ND	ND	ND	UNK	ND
Hexanes +	mol%	ND	ND	ND	**0.0007**	ND	**0.0018**	ND	**0.0067**	ND	ND	**0.0015**	**0.0006**	**0.0020**	ND
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-86.06**	**-75.80**	**-91.53**	**-65.00**	**-69.25**	**-77.02**	**-67.15**	**-81.93**	**-82.87**	**-85.90**	**-85.82**	**-86.12**	**-86.49**	**-86.74**
δD (CH_4)	‰	**-353**	**-319.9**	**-312.9**	**-281.4**	**-309.7**	**-311.7**	**-309.1**	**-208.3**	**-210.6**	**-258.5**	**-233**	**-257.7**	**-257.1**	**-269.1**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		MW-2														
Sample ID		MW-2-200								MW-2-500						
Sample Date		1/31/24*	3/26/24*	4/23/24*	5/24/24*	6/18/24*	7/23/24*	8/20/24*	9/24/24*	3/26/24*	4/22/24*	5/22/24*	6/19/24*	7/23/24*	8/20/24*	9/24/24*
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Monitoring Wells														
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.25**	**0.331**	**0.316**	**0.291**	**0.364**	**0.316**	**0.368**	**0.328**	**2.01**	**1.93**	**1.74**	**1.43**	**1.27**	**1.26**	**1.23**
Oxygen	mol%	**1.23**	**1.72**	**0.84**	**2.40**	**4.36**	**3.89**	**6.80**	**3.36**	**2.82**	**3.13**	**4.38**	**5.66**	**8.67**	**8.34**	**3.69**
Nitrogen	mol%	**7.27**	**11.89**	**11.09**	**9.62**	**14.08**	**12.43**	**17.66**	**14.07**	**92.24**	**86.68**	**78.33**	**67.01**	**63.28**	**61.69**	**58.11**
Carbon Dioxide	mol%	ND	ND	ND	ND	ND	ND	ND	**0.071**	**2.19**	**2.05**	**1.72**	ND	ND	ND	ND
Methane	mol%	**91.12**	**85.97**	**87.67**	**87.58**	**81.1**	**83.28**	**75.02**	**82.09**	**0.743**	**6.21**	**13.82**	**25.89**	**26.75**	**28.56**	**36.92**
Ethane	mol%	**0.0964**	**0.0690**	**0.0685**	**0.0836**	**0.0731**	**0.0697**	**0.0678**	**0.0694**	ND	**0.0008**	**0.0009**	**0.0127**	**0.0135**	**0.0131**	**0.0096**
Ethylene	mol%	ND	ND	ND	ND	ND	**0.0014**	ND	ND	ND	ND	ND	ND	ND	ND	**0.0006**
Propane	mol%	**0.0214**	**0.0097**	**0.0094**	**0.0136**	**0.0105**	**0.0071**	**0.0062**	**0.0021**	ND	ND	ND	**0.0019**	**0.0019**	**0.0041**	**0.0015**
Propylene	mol%	ND	ND	ND	ND	ND	**0.0003**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0113**	**0.0050**	**0.0051**	**0.0064**	**0.0047**	**0.0032**	**0.0027**	**0.0010**	ND	**0.0013**	**0.0015**	**0.0041**	**0.0041**	**0.0045**	**0.0039**
N-butane	mol%	**0.0029**	**0.0022**	**0.0015**	**0.0019**	**0.0013**	**0.0011**	**0.0018**	ND	ND	ND	ND	ND	ND	**0.002**	ND
Iso-pentane	mol%	**0.0008**	**0.0004**	**0.0004**	**0.0005**	**0.0003**	ND	**0.0009**	ND	ND	ND	ND	ND	ND	**0.0013**	**0.0228**
N-pentane	mol%	ND	ND	ND	ND	ND	ND	UNK	ND	ND	ND	ND	ND	ND	UNK	ND
Hexanes +	mol%	ND	**0.0004**	ND	ND	**0.0008**	**0.0005**	**0.0015**	ND	**0.0018**	**0.0018**	**0.0012**	**0.0010**	**0.0007**	**0.0016**	ND
Stable Isotopes																
$\delta^{13}C$ (CH_4)	‰	**-47.6**	**-49.82**	**-49.33**	**-48.35**	**-48.45**	**-49.20**	**-48.99**	**-49.45**	**-62.1**	**-77.1**	**-68.16**	**-57.0**	**-58.96**	**-63.60**	**-62.44**
δD (CH_4)	‰	**-186.2**	**-183.6**	**-182.4**	**-177.6**	**-183**	**-175.7**	**-178.5**	**-187.6**	NA	**-319**	**-306.2**	**-252.3**	**-258.3**	**-285.9**	**-296.5**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide																
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	MW-2							MW-3						
	Sample ID	MW-2-700							MW-3-200						
	Sample Date	3/26/24*	4/23/24*	5/22/24*	6/19/24*	7/23/24*	8/21/24*	9/23/24*	3/27/24*	4/23/24*	5/23/24*	6/20/24*	7/24/24*	8/21/24*	9/24/24*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Monitoring Wells													
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.80**	**1.83**	**1.82**	**1.76**	**1.67**	**1.71**	**1.95**	**0.411**	**0.324**	**0.470**	**0.320**	**0.269**	**0.368**	**0.300**
Oxygen	mol%	**3.71**	**5.21**	**7.97**	**8.25**	**13.18**	**13.42**	**1.91**	**0.92**	**0.44**	**7.34**	**4.63**	**4.19**	**5.60**	**2.51**
Nitrogen	mol%	**85.21**	**83.34**	**80.10**	**80.25**	**80.35**	**80.14**	**89.36**	**17.82**	**11.99**	**29.45**	**11.01**	**11.07**	**13.09**	**17.07**
Carbon Dioxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.015**	ND	**0.028**
Methane	mol%	**9.27**	**9.62**	**10.10**	**9.73**	**4.8**	**4.58**	**6.75**	**80.80**	**87.19**	**62.70**	**83.98**	**84.40**	**80.78**	**80.03**
Ethane	mol%	**0.0027**	**0.0025**	**0.0033**	**0.0033**	**0.0032**	**0.0058**	**0.0047**	**0.0431**	**0.0493**	**0.0387**	**0.0533**	**0.0518**	**0.0566**	**0.0539**
Ethylene	mol%	ND	ND	ND	ND	ND	ND	ND	**0.0005**	**0.0004**	ND	ND	ND	ND	ND
Propane	mol%	**0.0013**	**0.0008**	**0.001**	**0.001**	**0.0012**	**0.0035**	**0.0017**	ND	ND	ND	ND	ND	**0.0016**	ND
Propylene	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	ND	**0.001**	ND	**0.001**	**0.0023**	**0.0025**	**0.0028**	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	ND	ND	ND	ND	ND	**0.0019**	ND	ND	ND	ND	ND	ND	**0.0012**	ND
Iso-pentane	mol%	ND	ND	ND	ND	ND	**0.0012**	**0.0200**	ND	ND	ND	ND	ND	**0.0008**	ND
N-pentane	mol%	ND	ND	ND	ND	ND	UNK	ND	ND	ND	ND	ND	ND	UNK	ND
Hexanes +	mol%	**0.0013**	**0.0018**	ND	ND	ND	**0.0038**	ND	**0.0026**	**0.0011**	ND	**0.0009**	ND	**0.0009**	ND
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-83.69**	**-83.68**	**-82.98**	**-82.27**	**-79.20**	**-78.3**	**-74.94**	**-48.64**	**-47.5**	**-47.21**	**-47.05**	**-47.35**	**-47.01**	**-47.25**
δD (CH_4)	‰	**-193.6**	**-187.8**	**-183.8**	**-192.8**	**-192**	**-192**	**-203**	**-187.3**	**-186.8**	**-182.1**	**-182.7**	**-184.1**	**-184.1**	**-183.3**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

Sample Location		MW-3-500													
Sample ID		MW-3-500							MW-3-700						
Sample Date		3/27/24*	4/23/24*	5/23/24*	6/20/24*	7/24/24*	8/21/24*	9/25/24*	3/27/24*	4/24/24*	5/23/24*	6/20/24*	7/24/24*	8/21/24*	9/24/24*
Sampler		ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Monitoring Wells													
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**0.873**	**0.859**	**0.872**	**0.829**	**0.804**	**0.839**	**0.811**	**1.12**	**1.29**	**1.35**	**1.26**	**1.17**	**1.20**	**1.20**
Oxygen	mol%	**7.47**	**1.24**	**4.37**	**0.047**	**0.13**	**0.10**	**0.38**	**10.21**	**5.51**	**7.39**	**7.08**	**11.96**	**8.01**	**5.05**
Nitrogen	mol%	**55.64**	**36.97**	**36.28**	**35.69**	**34.1**	**35.21**	**34.04**	**63.14**	**53.69**	**55.6**	**57.54**	**55.37**	**53.67**	**55.83**
Carbon Dioxide	mol%	**0.32**	**0.02**	ND	**1.95**	**2.24**	**1.20**	**0.91**	**1.00**	**0.28**	**0.07**	**0.03**	**0.040**	ND	ND
Methane	mol%	**35.35**	**60.34**	**57.89**	**60.86**	**62.05**	**61.95**	**63.18**	**24.48**	**39.16**	**35.53**	**34.04**	**31.41**	**37.07**	**37.86**
Ethane	mol%	**0.299**	**0.509**	**0.519**	**0.56**	**0.605**	**0.602**	**0.620**	**0.0466**	**0.0733**	**0.0486**	**0.0462**	**0.0421**	**0.0468**	**0.0481**
Ethylene	mol%	**0.0015**	**0.0027**	**0.0033**	**0.0019**	**0.0014**	**0.0025**	**0.0028**	ND	ND	ND	ND	ND	ND	ND
Propane	mol%	**0.0217**	**0.0318**	**0.0346**	**0.0306**	**0.0258**	**0.0327**	**0.0333**	**0.0052**	**0.0069**	**0.0042**	**0.0041**	**0.0035**	**0.0043**	**0.0044**
Propylene	mol%	ND	**0.0004**	**0.0005**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0066**	**0.0065**	**0.0074**	**0.0112**	**0.0117**	**0.0122**	**0.0120**	ND	ND	ND	ND	ND	ND	ND
N-butane	mol%	**0.0009**	**0.0007**	**0.0009**	**0.0009**	**0.0007**	**0.0011**	**0.0012**	ND	ND	ND	ND	ND	ND	ND
Iso-pentane	mol%	ND	ND	ND	**0.0004**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-pentane	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexanes +	mol%	**0.0173**	**0.0199**	**0.0248**	**0.0232**	**0.0337**	**0.0472**	**0.0117**	**0.0009**	ND	**0.0031**	**0.0011**	**0.001**	ND	**0.0024**
Stable Isotopes															
$\delta^{13}C$ (CH_4)	‰	**-44.75**	**-44.71**	**-44.57**	**-44.84**	**-44.85**	**-44.64**	**-44.91**	**-72.08**	**-71.75**	**-67.76**	**-66.42**	**-65.55**	**-64.93**	**-64.45**
δD (CH_4)	‰	**-151.5**	**-156.4**	**-150.6**	**-149.4**	**-150.2**	**-150.7**	**-148.9**	**-193.5**	**-200.7**	**-238.9**	**-240.5**	**-244.1**	**-250.7**	**-250.1**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide															
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 4

Gas Data Summary

Sulphur Dome

Calcasieu Parish, Louisiana

	Sample Location	SN 57788	SN 32069			SN 37320						Starks		SN 973224
	Sample ID	6X Brine	Brine Well 2			Cavern 4						Starks Tie-in	Brine	Brine Well 18
	Sample Date	1/25/23*	5/22/23	9/18/23	3/28/24	9/20/23	5/29/24	8/10/24	8/10/24	8/10/24	8/10/24	10/30/23*	9/25/24*	10/30/23*
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	Lonquist	Lonquist	Lonquist	Lonquist	ERM	ERM	ERM
Component	**Units**	Brine												
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Hydrogen	mol%	ND	**0.0466**	**0.0483**	**0.0136**	**0.0560**	**0.0056**	ND	ND	ND	ND	ND	ND	ND
Argon	mol%	**1.91**	**0.0341**	**0.0547**	**0.0411**	**0.150**	**0.157**	**0.0478**	**0.0494**	**0.0477**	**0.0477**	**1.38**	**0.979**	**1.68**
Oxygen	mol%	**0.74**	**0.21**	**0.64**	**0.46**	**0.88**	**1.76**	**0.025**	**0.067**	**0.020**	**0.025**	**7.65**	**19.17**	**1.95**
Nitrogen	mol%	**79.17**	**10.9**	**12.99**	**7.32**	**65.43**	**71.48**	**89.27**	**89.26**	**89.26**	**89.25**	**72.47**	**56.65**	**75.33**
Carbon Dioxide	mol%	**5.31**	**3.88**	**2.78**	**1.99**	**0.28**	**0.16**	**0.40**	**0.40**	**0.39**	**0.4**	**13.83**	**18.36**	**12.71**
Methane	mol%	**11.72**	**84.12**	**82.76**	**86.93**	**32.05**	**25.44**	**9.51**	**9.45**	**9.52**	**9.51**	**4.65**	**4.84**	**8.28**
Ethane	mol%	**0.462**	**0.339**	**0.300**	**0.433**	**0.173**	**0.166**	**0.0782**	**0.0779**	**0.0783**	**0.0782**	**0.0033**	**0.0026**	**0.039**
Ethylene	mol%	**0.0193**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0011**
Propane	mol%	**0.389**	**0.0587**	**0.0558**	**0.135**	**0.198**	**0.210**	**0.133**	**0.133**	**0.133**	**0.133**	**0.0013**	ND	**0.0038**
Propylene	mol%	**0.0006**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0312**	**0.0321**	**0.0260**	**0.0955**	**0.0719**	**0.0694**	**0.0479**	**0.0485**	**0.0482**	**0.0482**	ND	ND	**0.0011**
N-butane	mol%	**0.0893**	**0.123**	**0.0955**	**0.466**	**0.254**	**0.232**	**0.167**	**0.169**	**0.168**	**0.168**	ND	ND	**0.0011**
Iso-pentane	mol%	**0.0162**	**0.0643**	**0.0548**	**0.389**	**0.1150**	**0.0917**	**0.0733**	**0.0756**	**0.0744**	**0.0742**	ND	ND	ND
N-pentane	mol%	**0.0193**	**0.0837**	**0.0752**	**0.622**	**0.1520**	**0.1140**	**0.0963**	**0.0995**	**0.0984**	**0.0979**	ND	ND	ND
Hexanes +	mol%	**0.12**	**0.105**	**0.117**	**1.10**	**0.191**	**0.123**	**0.156**	**0.171**	**0.169**	**0.166**	**0.0114**	ND	**0.0059**
Stable Isotopes														
$\delta^{13}C$ (CH_4)	‰	**-38.98**	**-34.64**	**-34.49**	**-34.22**	**-34.15**	**-34.11**	**-34.05**	**-33.90**	**-34.05**	**-34.10**	**-68.91**	**-62.1**	**-35.32**
δD (CH_4)	‰	**-171.7**	**-144.9**	**-143.8**	**-145.6**	**-140.8**	**-143.1**	**-140.2**	**-140.9**	**-143.0**	**-141.2**	**-183**	**-190**	**-131.6**
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide														
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Bolded values deteted in the sample.

ND - Not Detected

NA - Not Analyzed (insufficient volume)

* - Dissolved Gas sample

Table 4
Gas Data Summary
Sulphur Dome
Calcasieu Parish, Louisiana

	Sample Location	SN 973365	SN 974245	Sulphur	SN 209459	SN 189416		SN 246792	BCKGRD ATM			
	Sample ID	Brine Well 21	Brine Well 22	Production	Fee 1012	Fee 969		Fee 1026				
	Sample Date	10/30/23*	10/30/23*	9/25/24*	5/2/23	5/25/23	8/29/23	5/25/23	12/13/23	3/28/24	6/19/24	9/26/24
	Sampler	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM
Component	**Units**	Brine			Oil Wells				Background			
Carbon Monoxide	mol%	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Helium	mol%	NA	NA	NA	ND	**0.0089**	ND	ND	ND	ND	ND	ND
Hydrogen	mol%	ND	ND	ND	**1.40**	**0.02**	ND	**3.37**	ND	ND	ND	ND
Argon	mol%	**1.53**	**1.35**	**0.903**	**0.0086**	**0.0630**	**0.0400**	**0.0125**	**0.867**	**0.942**	**0.953**	**0.941**
Oxygen	mol%	**6.80**	**2.09**	**11.40**	**0.015**	**0.13**	**0.12**	**0.24**	**19.41**	**21.22**	**21.46**	**21.22**
Nitrogen	mol%	**77.42**	**61.67**	**41.19**	**0.38**	**9.27**	**3.71**	**0.83**	**79.64**	**77.79**	**77.52**	**77.80**
Carbon Dioxide	mol%	**8.33**	**10.68**	**41.77**	**1.34**	ND	**0.012**	ND	**0.062**	**0.51**	**0.063**	**0.039**
Methane	mol%	**5.77**	**23.80**	**4.71**	**88.34**	**89.63**	**93.74**	**89.59**	**0.0230**	**0.0006**	**0.0023**	**0.0004**
Ethane	mol%	**0.0966**	**0.332**	**0.0382**	**3.11**	**0.592**	**1.4**	**4.39**	**0.0006**	ND	ND	ND
Ethylene	mol%	**0.0015**	**0.0010**	ND	ND	**0.001**	**0.0003**	**0.0002**	ND	ND	ND	ND
Propane	mol%	**0.0208**	**0.0468**	**0.0021**	**2.78**	**0.202**	**0.662**	**1.17**	**0.0003**	ND	ND	ND
Propylene	mol%	ND	ND	ND	ND	ND	**0.0002**	ND	ND	ND	ND	ND
Iso-butane	mol%	**0.0077**	**0.0107**	ND	**0.701**	**0.0326**	**0.118**	**0.117**	**0.0001**	ND	ND	ND
N-butane	mol%	**0.0073**	**0.0083**	ND	**0.905**	**0.0381**	**0.135**	**0.135**	**0.0002**	ND	ND	ND
Iso-pentane	mol%	**0.0039**	**0.0024**	ND	**2.7**	**0.0072**	**0.0214**	**0.0273**	ND	ND	ND	ND
N-pentane	mol%	**0.0023**	**0.0015**	ND	**0.191**	**0.0053**	**0.0138**	**0.0789**	**0.0001**	ND	ND	ND
Hexanes +	mol%	**0.0081**	**0.0073**	ND	**0.562**	**0.0069**	**0.0319**	**0.0948**	**0.0002**	**0.0002**	**0.0002**	ND
Stable Isotopes												
$\delta^{13}C$ (CH_4)	‰	**-36.62**	**-38.18**	**-38.8**	**-45.41**	**-53.33**	**-53.17**	**-47.78**	NA	NA	NA	NA
δD (CH_4)	‰	**-132.62**	**-148.0**	**-157**	**-168.6**	**-174.4**	**-177.8**	**-179.8**	NA	NA	NA	NA
$\delta^{13}C$ (CO_2)	‰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Sulfide												
Hydrogen Sulfide	ppmw	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1

Notes:
Bolded values deteted in the sample.
ND - Not Detected
NA - Not Analyzed (insufficient volume)
* - Dissolved Gas sample

Table 5

Oil Data Summary

Sulphur Dome

Calcalsieu Parish, Louisiana

		Cavern 7 Oil											Cavern 4 Oil	
	Sample ID	**Westlake 7B**	**Westlake 7B**	**Westlake 7B**	**Westlake 7B**	**Westlake 7B**	**7B Oil**	**Cavern 7B**	**7B Oil**	**7B Oil**	**Cavern 7 Oil**	**7B Oil**	**Cavern 4**	**PPG No. 004**
	Sample Date	5/11/22	6/14/22	8/16/22	11/2/22	1/18/23	3/30/23	5/25/23	6/16/23	10/25/23	2/7/24	9/26/24	5/25/23	8/10/24
	Location	Shore Tank @ Boardwalk Composite	Shore Tank @ Boardwalk Composite	Cavern 7	Cavern 7	Cavern 7	Cavern 7 frac tank	Cavern 7	Cavern 7	Cavern 7	Cavern 7	Cavern 7	Cavern 4	Cavern 4
	Sampler	Intertek	Intertek	Intertek	Intertek	Intertek	ERM	ERM	ERM	ERM	ERM	ERM	ERM	Lonquist
Constituent	**Units**													
Average API Gravity	°	**30.3**	**32.8**	**34.1**	**32.8**	**34.0**	**33.6**	**33.52**	**33.98**	**33.85**	**34.09**	**33.98**	**31.21**	**31.44**
Sulfur	**Wt %**	**1.48**	**1.3788**	**1.36**	**1.38**	**1.4**	**1.37**	**1.401**	**1.350**	**1.362**	**1.336**	NA	**1.548**	**1.515**
Vanadium	**mg/kg**	**20.6**	**4.035**	**2.85**	**22.8**	**22.8**	**100**	**23**	**25**	**21**	**25**	**17**	**42**	**42**
Nickel	**mg/kg**	**26.2**	**1.401**	**0.986**	**6.11**	**5.88**	**26**	**6**	**6**	**5**	**6**	**5**	**9**	**9**
Iron	**mg/kg**	<0.1	**2.304**	**0.014**	**0.002**	**0**	**12**	<1	**1**	**1**	<1	<1	**4**	**15**
Salt	**lb/1000 bbl**	<1.0	**0.57**	**5**	<1.0	**2.1**	**18**	**5.0**	**10.6**	**23.2**	**20.0**	**16.0**	**10.4**	**883.3**
Organic Chloride	**mg/kg**	**5.1**	**4.5**	**6.9**	**4.8**	**2.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Total Chloride	**mg/kg**	**5.5**	**5.19**	**10.5**	**5.5**	**9.7**	NA	NA	NA	NA	NA	NA	NA	NA
Inorganic Chloride	**mg/kg**	**0.4**	**0.69**	**3.7**	**0.7**	**7.2**	NA	NA	NA	NA	NA	NA	NA	NA
Specific Gravity	°	NA	NA	NA	NA	NA	**0.8571**	**0.8575**	**0.8551**	**0.8557**	**0.8545**	**0.8550**	**0.8696**	**0.8684**
Density	**g/ml**	NA	NA	NA	NA	NA	**0.8562**	**0.8566**	**0.8542**	**0.8549**	**0.8537**	**0.8524**	**0.8688**	**0.8675**

Notes:

< Not detected at the reporting limit shown.

Bolded values detected in sample

NA - Not Analyzed

Table 5
Oil Data Summary
Sulphur Dome
Calcalsieu Parish, Louisiana

		Produced Oil													Stock Tank	
	Sample ID	**Yellowrock 969**	**209459**		**185997**		**210185**	**Tank Battery**	**252112**	**109963**	**235998**	**41842**	**189416**		**Pad Oil**	**Pad Oil**
	Sample Date	11/2/22	5/2/23	6/16/23	5/2/23	6/16/23	5/25/23	5/25/23	6/16/23	6/16/23	8/17/23	8/17/23	8/29/23	8/29/23	1/18/23	6/16/23
	Location	SN 189416 Well Sample	SN 209459 Well Sample	SN 209459 Well Sample	SN 185997 Well Sample	SN 185997 Well Sample	SN 210185 Well Sample	Tank Battery	SN 252112 Well Sample	SN 109963 Well Sample	SN 235998 Well Sample	SN 41842 Well Sample	SN 189416 1,250'	SN 189416 170'	Pad Oil Pump Oil	Pad Oil Pump Oil
	Sampler	Intertek	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	ERM	Intertek	ERM
Constituent	**Units**															
Average API Gravity	°	**26.0**	**22.81**	**21.56**	**21.53**	**22.96**	**22.79**	**26.95**	**29.72**	**24.05**	**16.88**	**26.55**	**20.65**	**20.8**	**29.1**	**29.27**
Sulfur	**Wt %**	**0.302**	**0.435**	**0.433**	**0.407**	**0.411**	**0.476**	**0.327**	**0.295**	**0.431**	**0.747**	**0.403**	**0.450**	**0.447**	**1.17**	**1.265**
Vanadium	**mg/kg**	**1.23**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**2**	**2.3**	**2**	<0.1	<0.1	**19**	**18**
Nickel	**mg/kg**	**7.04**	**8**	**9**	**9**	**10**	**10**	**6**	**5**	**8**	**9.6**	**22.2**	**10.9**	**8.3**	**4.94**	**5**
Iron	**mg/kg**	**6.57**	**13**	**6**	**6**	**7**	**59**	**15**	**11**	**17**	**11.7**	**16.3**	**204**	**179**	**24.5**	**29**
Salt	**lb/1000 bbl**	**363.36**	**1,290**	**9.2**	**1,015**	**138.0**	**9.8**	**32.0**	**74.0**	**54.0**	**9,850.0**	**10.6**	**232.0**	**88.0**	**46.7**	**258.0**
Organic Chloride	**mg/kg**	**89.0**	<1	<1	<1	<1	<1.0	<1.0	<1	<1	<1	<1	**9.0**	**6.2**	**63.7**	**2.1**
Total Chloride	**mg/kg**	**146.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**202.9**	NA
Inorganic Chloride	**mg/kg**	**57.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**139.2**	NA
Specific Gravity	°	NA	**0.917**	**0.9245**	**0.9246**	**0.9161**	**0.9171**	**0.893**	**0.8887**	**0.9096**	**0.9536**	**0.8953**	**0.9300**	**0.9291**	NA	**0.8801**
Density	**g/ml**	NA	**0.9161**	**0.9235**	**0.9237**	**0.9152**	**0.9162**	**0.8921**	**0.8878**	**0.9087**	**0.9527**	**0.8944**	**0.9291**	**0.9282**	NA	**0.8793**

Notes:
< Not detected at the reporting limit shown.
Bolded values detected in sample
NA - Not Analyzed

Table 6
Survey Results and Groundwater Elevations
Sulphur Dome
Calcasieu Parish, Louisiana

Well ID	UTM X	UTM Y	Screened Interval	Screen Length	Top of Casing Elevation	Ground Elevation	Stickup	Total Depth	Mid Screen	Mid Screen Elevation	TDS	Calcuated Density	3/25-27/2024			4/22/2024			5/21/2024			6/18/2024		
													DTW	Water Elevation	EFWH	DTW	Water Elevation	EFWH	DTW	Water Elevation	EFWH	DTW	Water Elevation	EFWH
	m	m	ft bgs	ft	ft	ft	ft	ft btoc	ft bgs	ft	mg/L	kg/m^3	ft btoc	ft	ft	ft btoc	ft	ft	ft btoc	ft	ft	ft btoc	ft	ft
MW-1-200	460257.857	3347201.961	162-172	10	12.75	9.22	3.53	175.81	167	-158.06	328	998.434	23.83	-11.08	-11.05	23.83	-11.08	-11.05	23.39	-10.64	-10.61	23.12	-10.37	-10.34
MW-1-500	460260.314	3347203.590	503-513	10	12.11	9.30	2.81	515.90	508	-498.79	296	998.411	53.35	-41.24	-41.14	54.65	-42.54	-42.44	54.19	-42.08	-41.98	55.35	-43.24	-43.14
MW-1-700	460262.682	3347205.242	694-674	10	12.17	9.26	2.91	708.40	699	-691.23	494	998.553	52.90	-40.73	-40.50	54.08	-41.91	-41.68	53.57	-41.40	-41.17	54.71	-42.54	-42.31
MW-2-200	460190.048	3346592.350	230-240	10	14.56	11.40	3.16	243.06	235	-223.50	260	998.386	46.88	-32.32	-32.29	47.20	-32.64	-32.61	46.98	-32.42	-32.39	47.18	-32.62	-32.59
MW-2-500	460186.918	3346593.844	502-512	10	14.61	11.51	3.10	515.10	507	-495.49	296	998.411	57.19	-42.58	-42.48	58.66	-44.05	-43.95	58.49	-43.88	-43.78	59.96	-45.35	-45.25
MW-2-700	460198.229	3346589.473	680-690	10	14.69	11.09	3.60	694.60	685	-674.91	594	998.624	57.05	-42.36	-42.09	58.63	-43.94	-43.67	58.43	-43.74	-43.47	59.84	-45.15	-44.88
MW-3-200	460555.076	3346638.627	228-238	10	14.74	12.04	2.70	242.69	233	-222.95	552	998.594	50.35	-35.61	-35.54	51.49	-36.75	-36.68	51.35	-36.61	-36.54	51.96	-37.22	-37.15
MW-3-500	460555.867	3346635.699	464-474	10	15.08	11.64	3.44	475.95	469	-455.87	2,220	999.786	56.74	-41.66	-41.00	57.92	-42.84	-42.18	57.70	-42.62	-41.96	59.09	-44.01	-43.36
MW-3-700	460557.858	3346628.300	680-690	10	14.41	11.53	2.88	695.38	685	-675.97	4,320	1,001.286	56.64	-42.23	-40.27	57.75	-43.34	-41.38	57.49	-43.08	-41.12	58.96	-44.55	-42.60

Well ID	UTM X	UTM Y	Screened Interval	Screen Length	Top of Casing Elevation	Ground Elevation	Stickup	Total Depth	Mid Screen	Mid Screen Elevation	TDS	Calcuated Density	7/23/2024			8/20/2024			9/23/2024		
													DTW	Water Elevation	EFWH	DTW	Water Elevation	EFWH	DTW	Water Elevation	EFWH
	m	m	ft bgs	ft	ft	ft	ft	ft btoc	ft bgs	ft	mg/L	kg/m^3	ft btoc	ft	ft	ft btoc	ft	ft	ft btoc	ft	ft
MW-1-200	460257.857	3347201.961	162-172	10	12.75	9.22	3.53	175.81	167	-158.06	328	998.434	23.19	-10.44	-10.41	23.23	-10.48	-10.45	23.16	-10.41	-10.38
MW-1-500	460260.314	3347203.590	503-513	10	12.11	9.30	2.81	515.90	508	-498.79	296	998.411	55.03	-42.92	-42.82	55.16	-43.05	-42.95	54.95	-42.84	-42.74
MW-1-700	460262.682	3347205.242	694-674	10	12.17	9.26	2.91	708.40	699	-691.23	494	998.553	54.45	-42.28	-42.05	54.56	-42.39	-42.16	54.34	-42.17	-41.94
MW-2-200	460190.048	3346592.350	230-240	10	14.56	11.40	3.16	243.06	235	-223.50	260	998.386	47.51	-32.95	-32.92	47.36	-32.80	-32.77	47.50	-32.94	-32.91
MW-2-500	460186.918	3346593.844	502-512	10	14.61	11.51	3.10	515.10	507	-495.49	296	998.411	59.33	-44.72	-44.62	59.44	-44.83	-44.73	59.26	-44.65	-44.55
MW-2-700	460198.229	3346589.473	680-690	10	14.69	11.09	3.60	694.60	685	-674.91	594	998.624	59.31	-44.62	-44.35	59.40	-44.71	-44.44	59.21	-44.52	-44.25
MW-3-200	460555.076	3346638.627	228-238	10	14.74	12.04	2.70	242.69	233	-222.95	552	998.594	52.56	-37.82	-37.75	52.48	-37.74	-37.67	52.53	-37.79	-37.72
MW-3-500	460555.867	3346635.699	464-474	10	15.08	11.64	3.44	475.95	469	-455.87	2,220	999.786	58.58	-43.50	-42.84	58.70	-43.62	-42.97	58.51	-43.43	-42.77
MW-3-700	460557.858	3346628.300	680-690	10	14.41	11.53	2.88	695.38	685	-675.97	4,320	1,001.286	58.43	-44.02	-42.07	58.54	-44.13	-42.18	58.37	-43.96	-42.01

Notes:
Coordinates, Top of Casing Elevation, and Ground elevation data from Mayeux Surveying.
All elevation data are referenced to NAVD '88 datum.
Depth to water (DTW) measurements are shown as depth below top of casing (btoc).
Density is calculated using Langevin, et al., 2003.
ft bgs = feet below ground surface
EFWH = Equivalent fresh water head (corrected for density based on TDS), based on Post, et al., 2007.

ATTACHMENT 1: LABORATORY REPORTS

ATTACHMENT 2: FIELD NOTES