

### 2024 ANNUAL GROUNDWATER MONITORING REPORT

WILLIAMS PIT (AP-22)
INCIDENT NO. NAUTOFAB000741
UNIT F, SECTION 25, TOWNSHIP 18S, RANGE 26E
EDDY COUNTY, NEW MEXICO
32.720624, -104.336249
RANGER REFERENCE NO. 5375

PREPARED FOR:

EOG RESOURCES, INC.
MIDLAND DIVISION
5509 CHAMPIONS DRIVE
MIDLAND, TEXAS 79706

PREPARED BY:

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**MARCH 24, 2025** 

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- Attachment 1 Site Photographs
- Attachment 2 Laboratory Analytical Reports
- Attachment 3 NMOCD Correspondence



2024 ANNUAL GROUNDWATER MONITORING REPORT **WILLIAMS PIT (AP-22) INCIDENT NO. NAUTOFAB000741** UNIT F, SECTION 25, TOWNSHIP 18S, RANGE 26E **EDDY COUNTY, NEW MEXICO** 32.720624, -104.336249 **RANGER REFERENCE NO. 5375** 

#### 1.0 SITE LOCATION AND BACKGROUND

The Williams Pit (Site) is a historic oil and gas production pit formerly located at the Williams Battery facility pad, an oil and gas production facility located on private land, approximately 9.15 miles south-southwest of Artesia, within Eddy County, New Mexico. The facility is situated in Unit F, Section 25, T18S-R26E at GPS coordinates 32.720624, -104.336249. The Williams Battery is currently active and is being operated by Silverback Operating II (Silverback). Based on the Site history and transaction history, EOG Resources, Inc. (EOG) maintains environmental responsibility for the impacts related to NAUTOFAB000741 at the Site.

The Williams Battery was historically operated by H&S Oil Company (H&S) and the unlined earthen production pit (Williams Pit) was formerly utilized by H&S for oil and gas fluid storage/impoundment. In 1997, Yates Petroleum Corporation (Yates) acquired the Willaims Battery and associated pit from H&S. While operated by Yates, the pit underwent closure and assessment of the former pit location was conducted. In September 2016, EOG acquired Yates and its associated assets including the Williams Battery which included the subject Williams Pit.

The production pit closure and assessment activities completed by Yates documented impacts to the native soil. Groundwater impacts were also documented at the Site in the 2002 timeframe. Due to the documented conditions at the Site, coordination with the New Mexico Oil and Gas Division (NMOCD) was initiated. Communication and coordination between the NMOCD and Yates continued until 2005 when a Stage I & II Abatement Plan was submitted to the NMOCD. Based on available information, no response was ever received from the NMOCD regarding this plan. During the 2005 to 2022 timeframe, a total of 13 groundwater monitoring events were conducted at the Site. In May 2021, additional soil investigation activities were completed at the Site.

EOG has engaged Ranger Environmental Services, LLC (Ranger) to assist in the continuation of the assessment and remediation efforts at the Site. In May 2023, Ranger personnel established communications with the NMOCD and began discussion of the Site with NMOCD representatives that included the steps needed to bring the Site into compliance with the current regulatory criteria and New Mexico Administrative Code (NMAC). Based on Ranger's communications with the NMOCD, a comprehensive Site Chronology and Status Update report, dated September 19, 2023, was submitted to the NMOCD to provide a summary of the Site history and the cumulative soil and groundwater data so that a regulatory path forward could be established.

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Based upon communications with the NMOCD, groundwater monitoring activities were continued at the subject site in 2023, with an annual groundwater monitoring event completed in November 2023. A March 27, 2024 "Annual Groundwater Monitoring Report" was prepared by Ranger and submitted to the NMOCD which documented the 2023 groundwater sampling activities and results. The 2023 annual report also included recommendations to conduct quarterly groundwater monitoring activities at the Site beginning in the second quarter of 2024 with analysis of groundwater samples being limited to the constituents of concern (COCs) which have historically been detected in exceedance of the NMAC 20.6.2.3103 criteria. The report also included recommendations for further groundwater delineation and collection of background groundwater quality data to determine whether the former production pit is the source for the elevated groundwater benzene, chloride, sulfate and TDS concentrations at the site, or whether these concentrations are a result of background conditions and/or a historic release source other than the former production pit.

By May 2024, since no response had yet been received from the NMOCD in regard to the September 2023 *Site Chronology and Status Update* report or the March 2024 *Annual Groundwater Monitoring Report*, the recommended quarterly groundwater monitoring program was implemented at the Site. As noted in the 2023 annual report, upon NMOCD review of these reports the recommended subset of the site groundwater monitoring COCs will be modified if requested by the NMOCD.

On October 23, 2024, EOG and NMOCD representatives participated in a meeting to discuss the site status, the recommendations for additional site assessment that were presented in the 2023 annual report, and to determine an appropriate pathway forward for the site. During the meeting, the NMOCD requested modifications to the assessment workplan presented in Ranger's 2023 annual report. Based on the meeting details, a Ranger-prepared Assessment Workplan, dated January 28, 2025, was prepared and submitted to the NMOCD which proposed the additional assessment activities that were discussed with the NMCOD in October 2024. An NMOCD response to the Assessment Workplan is currently pending.

This report has been prepared to provide details and results of the groundwater sampling activities completed in 2024.

A *Topographic Map* and *Area Map* noting the location of the subject Site and surrounding areas are attached. A *Site Map* depicting the pertinent site features is also attached.

### 2.0 GROUNDWATER MONITORING (2024)

As summarized above, and as recommended in the 2023 annual report, quarterly groundwater monitoring activities were continued at the Site beginning in the second quarter of 2024. A total of three quarterly groundwater monitoring events were conducted at the Site in 2024. The monitoring events were conducted on April 30, 2024, September 24, 2024, and December 10, 2024.

Attached are cumulative summary tables of the Site well gauging data and groundwater laboratory analytical results. Also attached are isoconcentration maps for the primary site groundwater COCs (chloride, sulfate and TDS), groundwater gradient maps, and copies of the laboratory analytical reports. Below is a summary of the 2024 annual groundwater monitoring activities and results.



### 2.1 Groundwater Monitoring Methodologies

Upon arrival at the Site, the monitor wells were opened and allowed to equilibrate for approximately 30 minutes prior to the performance of any well gauging or sampling activities. Prior to sampling the groundwater in each monitor well, the wells were first gauged with a decontaminated interface probe to determine the depth to groundwater in each monitor well, and light nonaqueous phase liquid (LNAPL) thicknesses, if any. This data was utilized to determine the site groundwater flow direction and gradient.

Groundwater samples were subsequently collected using low-flow sampling techniques. The wells were purged and sampled using a low flow rate (0.026 to 0.264 gpm) that minimized drawdown. The pump-intake was located in the middle or slightly above the middle of the saturated screened interval. The monitoring wells were purged until the field water quality parameters (i.e., pH, temperature, and conductivity) stabilized. Parameters were considered to have stabilized if, over three consecutive readings, the following criteria were met:

- pH ±0.1 unit
- Temperature within 3%
- Conductivity within 3%

All sample containers were filled with minimal turbulence. Due to sample turbidity, the samples collected for dissolved metals analysis were first field-filtered through a 10-micron pore size filter. Ranger personnel wore new nitrile gloves while handling each sample in order to prevent cross-contamination of samples.

All samples were containerized using properly selected and cleaned containers, which were preserved by the laboratory as needed for the particular analysis to be performed. All VOC sample vials were filled completely to minimize head space. The samples were subsequently sealed in one or more ziplock bags and stored in a sample shuttle containing ice until arrival at the laboratory for chemical analysis. All sample containers were labeled with the project name, sample identification, date and time of sample collection, and samplers' initials. Chain-of-custody forms were completed to document sample transport to the analytical laboratory.

As recommended in the 2023 annual report, the groundwater samples were subsequently analyzed for the 10 COCs which have been detected in the site groundwater in exceedance of the NMAC 20.6.2.3103 criteria on at least one or more occasions historically. Below is a summary of these COCs and the associated analytical methods:

- **EPA Method 300.0:** Chloride and sulfate
- SM2540C MOD: Total dissolved solids
- EPA METHOD 200.7/EPA METHOD 200.8: Arsenic, Chromium, iron, manganese, selenium and silver
- EPA METHOD 8260B: Benzene

A trip blank was included in each sample cooler to assess the potential cross-contamination of field samples during shipment to, and storage in, the laboratory. The trip blanks were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using Method 8260. All trip blank results were non-detectable.



All purge water generated during the well purging process was placed in a sealed and labeled 55-gallon drum and was temporarily stored on-site pending off-site disposal.

### 2.2 2024 Groundwater Monitoring Results Summary

### Well Gauging Results

No LNAPL was documented to be present in the site monitoring wells. The depth to groundwater in the site monitoring wells was documented to range from approximately 25.45' bgs in MW-4 to a maximum of approximately 27.82' bgs in MW-3. As illustrated on the attached groundwater gradient map, the April 30, 2024 site groundwater gradient and flow direction was documented to be approximately 0.01 ft/ft moving radially outward from the former pit location. The September 24, 2024 and December 10, 2024 groundwater gradient and flow direction was documented to be approximately 0.01 ft/ft to the northwest, west, and southwest. The 2024 well gauging results were generally consistent with the historical well gauging results.

### **Groundwater Analytical Results**

Groundwater Anions and TDS: As summarized in Section 2.1, above, chloride, sulfate, and TDS were historically detected in the site groundwater in exceedance of the NMAC 20.6.2.3103 standards. Consistent with historical results, the 2024 groundwater analytical data continued to document elevated concentrations of chloride, sulfate and TDS in the site groundwater, with these three COCs being the primary constituents of concern at the subject site. Concentrations of chloride, sulfate and TDS above the NMAC 20.6.2.3103 standards were documented in all four site monitoring wells during all three 2024 sampling events.

During 2024, pit area monitor well MW-4 was found to contain the lowest site chloride and TDS concentrations while monitor well MW-1 was found to contain the overall highest site chloride and TDS concentrations. As such, based upon the available data, the pit does not appear to be the source for the elevated groundwater chloride and TDS concentrations. As illustrated on the attached chloride and TDS isoconcentration maps, the pit does not appear to be a contaminant "hot spot" or "source" area; rather, it has better water quality than the areas surrounding it. As summarized in Section 1.0, above, the January 2025 Assessment Work Plan has included provisions to conduct further plume delineation activities and collect background water quality data to further evaluate whether the elevated chloride and TDS concentrations are a result of background conditions and/or a release source other than the pit.

Consistent with historical results, the elevated site sulfate concentrations documented in 2024 were not suggestive of an on-site release, particularly from the former pit. The groundwater sulfate analytical results were all relatively similar in each monitor well, and there was no obvious "hot spot" or "source" area for the elevated sulfate concentrations. The data are more indicative of what would be expected if the elevated sulfate concentrations were related to background conditions. Monitor well MW-1 had the overall highest site sulfate concentrations in 2024.



Dissolved Metals: An exceedance of the NMAC 20.6.2.3103 standard for arsenic was documented in monitor well MW-2 during the April 30, 2024 sampling event. However, the arsenic concentrations in MW-2 were below the NMAC 20.6.2.3103 standard during the September and December events, with the December event results being below the laboratory detection limit for arsenic. Consistent with historical results, exceedances of the NMAC 20.6.2.3103 standard for manganese were also documented in monitor well MW-2 during all three 2024 sampling events.

Since no metals exceedances were documented in the MW-4/pit area during 2024, the former pit does not appear to be the source for the 2024 exceedances of the NMAC 20.6.2.3103 standards for arsenic and manganese in MW-2. As with the chloride and TDS data, the elevated arsenic and manganese concentrations appear to be the result of background conditions and/or a release source other than the pit. Further site investigation activities will be required to confirm this. As summarized in Section 1.0, above, the January 2025 Assessment Work Plan has included provisions to conduct further plume delineation activities and to collect background water quality data.

• **Benzene**: During 2024, all monitor wells were documented to contain benzene concentrations below the NMAC 20.6.2.3103 standard including monitor well MW-2 which was found to contain slightly elevated benzene concentrations during the 2022 to 2023 groundwater monitoring events.

In summary, the 2024 well gauging and analytical data were generally consistent with historic results and appear to indicate that the former pit is not the source for the elevated site groundwater COC concentrations.

### 3.0 PROPOSED 2025 SITE ACTIVITIES

### Additional Site Assessment Activities

As referenced above, on October 24, 2024, NMOCD and EOG personnel met to discuss the subject Site and formulate a pathway for moving the project forward. Based on the meeting details, a Ranger prepared *Assessment Workplan*, dated January 28, 2025, was submitted to the NMOCD for review. An NMOCD response to the *Assessment Workplan* is currently pending. The completion of the proposed assessment activities will assist in the evaluation of the site groundwater conditions and should help confirm whether or not the pit is the source of the elevated COC concentrations or whether the elevated COC concentrations may be the result of background conditions or another historical release source.

### **Groundwater Sampling Activities**

While awaiting an NMOCD response to the *Assessment Workplan*, the quarterly groundwater monitoring program recommended in the 2023 annual report will be continued. The first quarter monitoring event was completed on March 11, 2025.

As detailed in the Assessment Workplan, upon installation of the proposed additional monitor wells at the Site, the newly installed wells will be incorporated into the quarterly groundwater



monitoring program. The initial samples collected from the newly installed monitor wells will be submitted for laboratory analysis of the comprehensive historical site COC suite.



### **FIGURES**

Topographic Map

Area Map

Site Map

Groundwater Gradient Maps

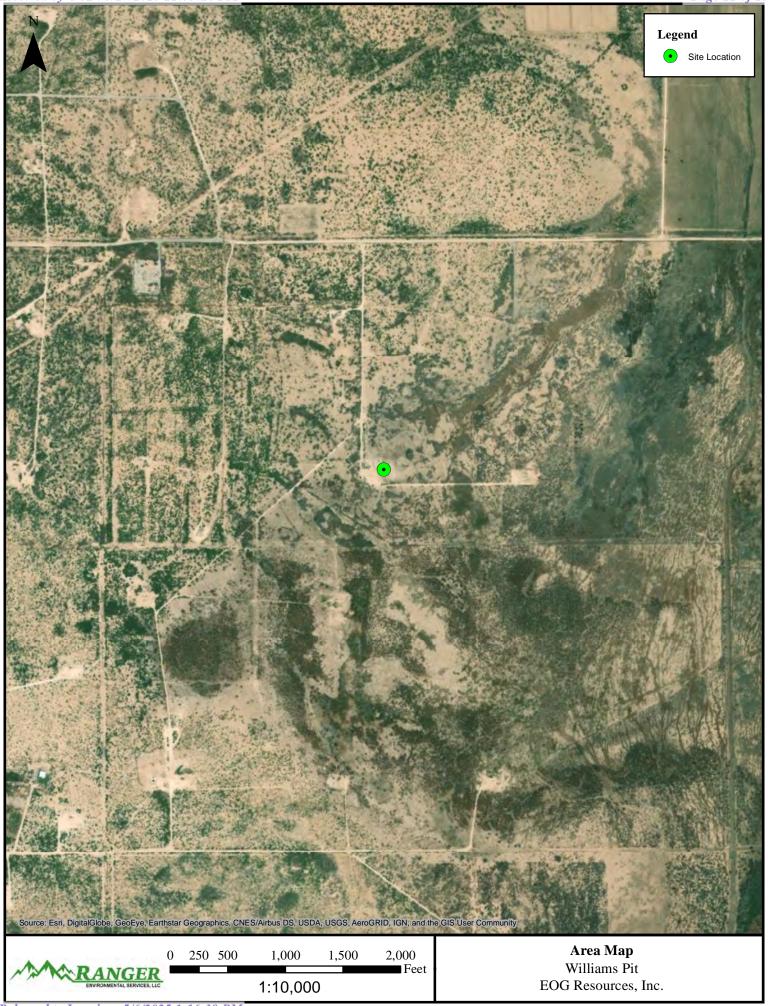
Groundwater TDS, Chloride, and Sulfate Isoconcentration Maps

Feet

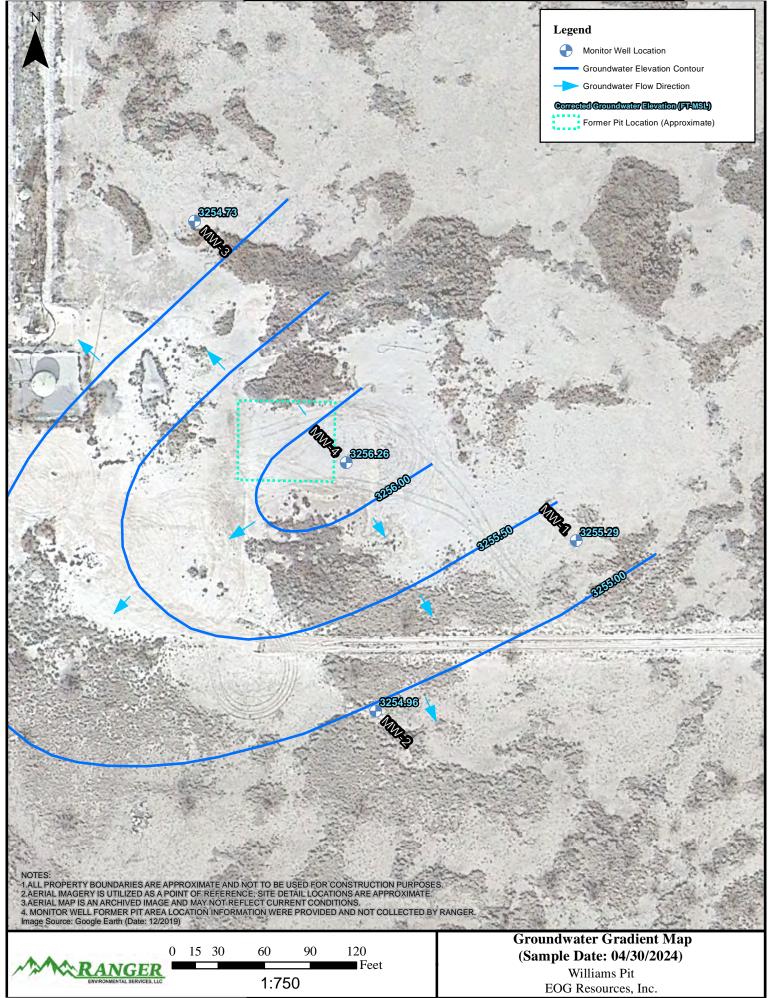
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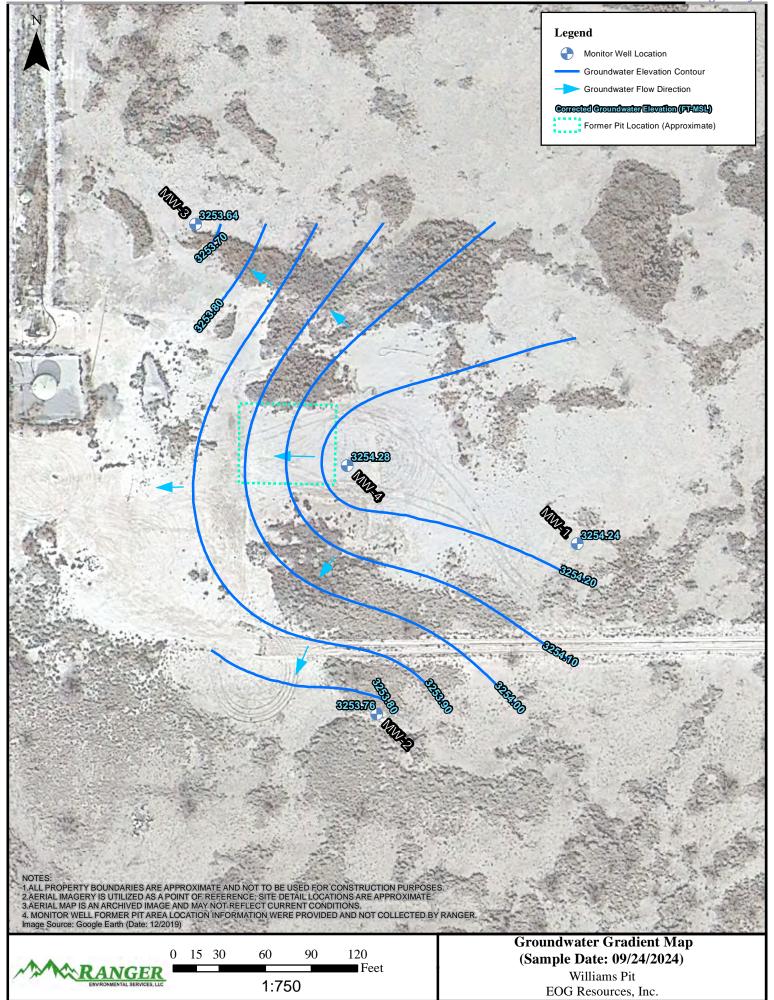
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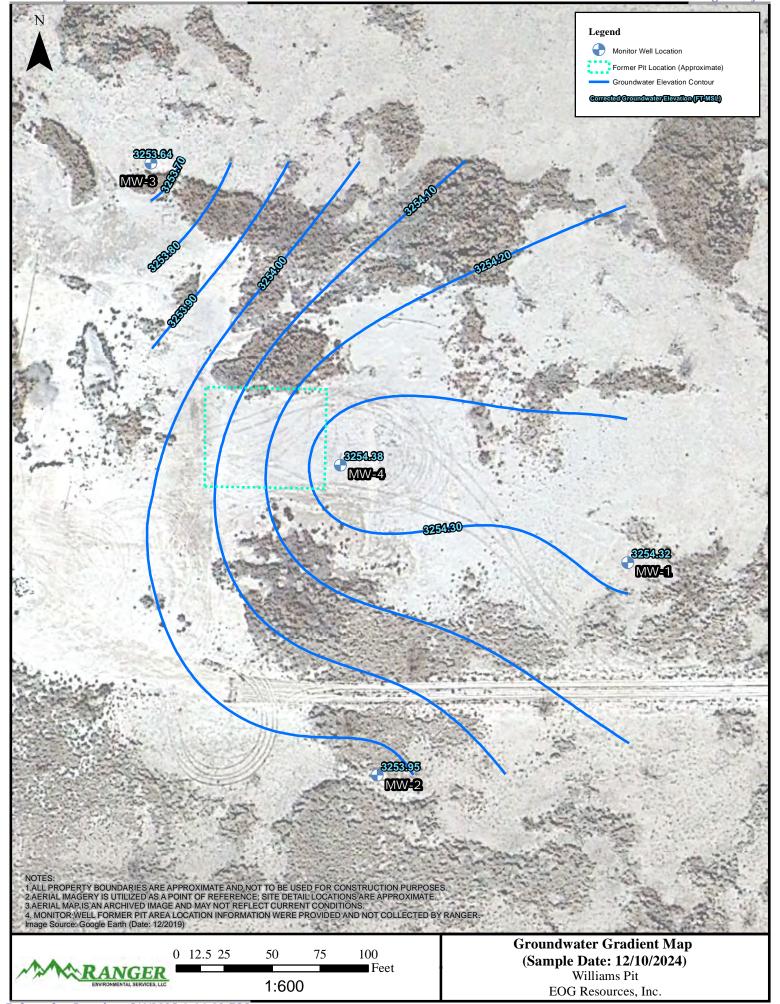
EOG Resources, Inc.

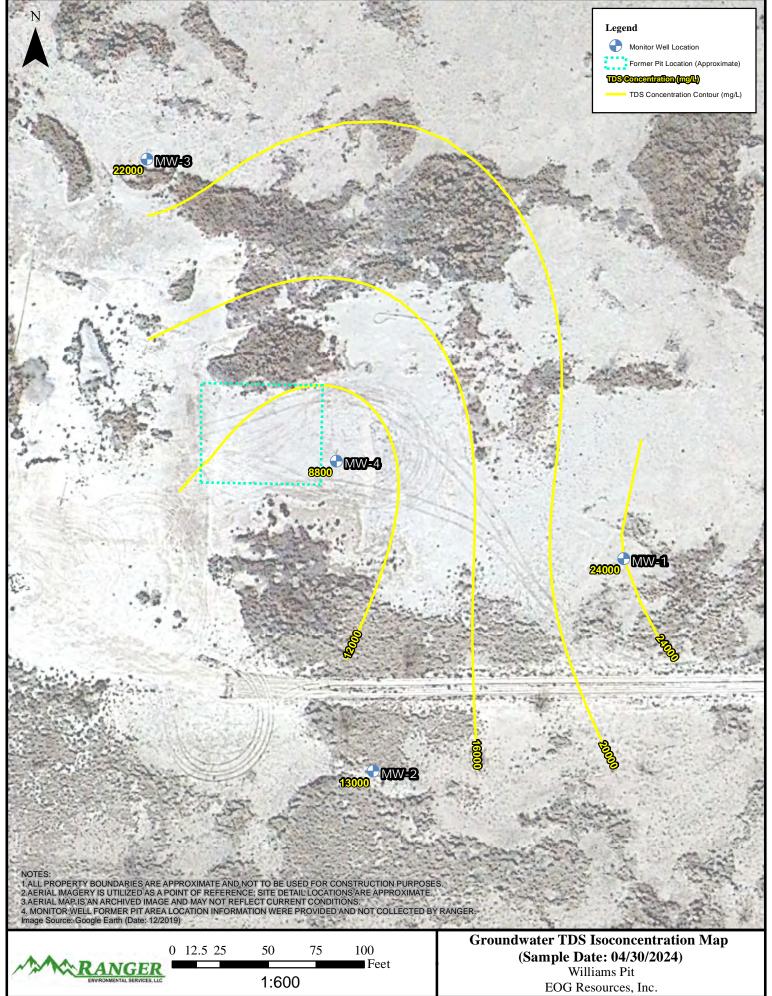


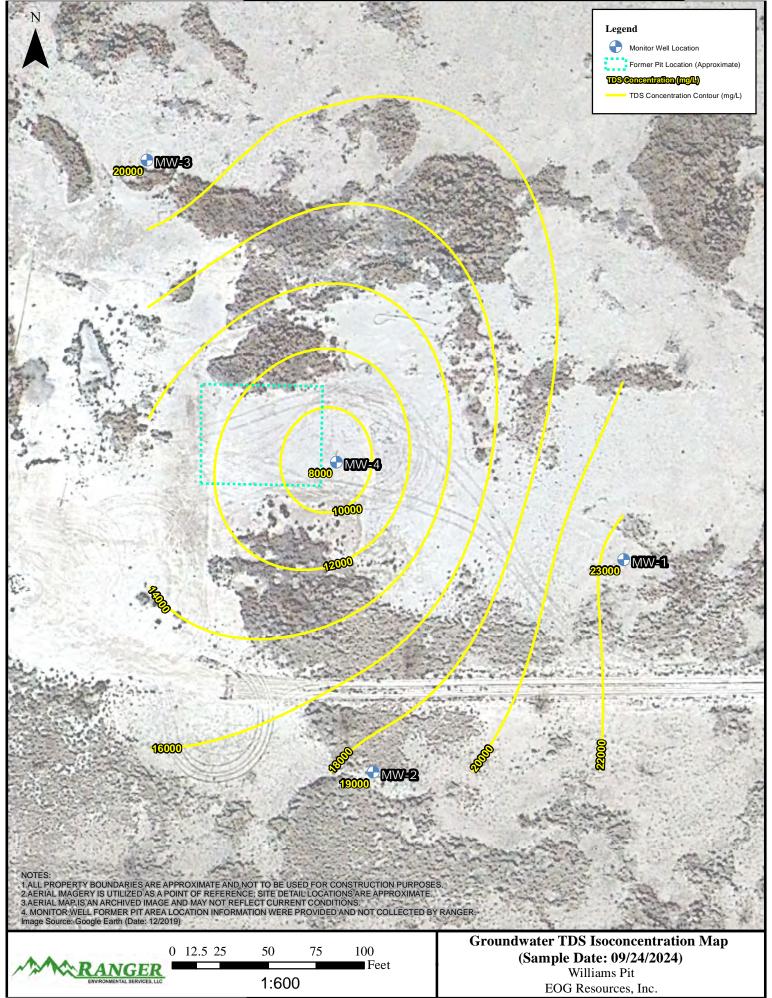


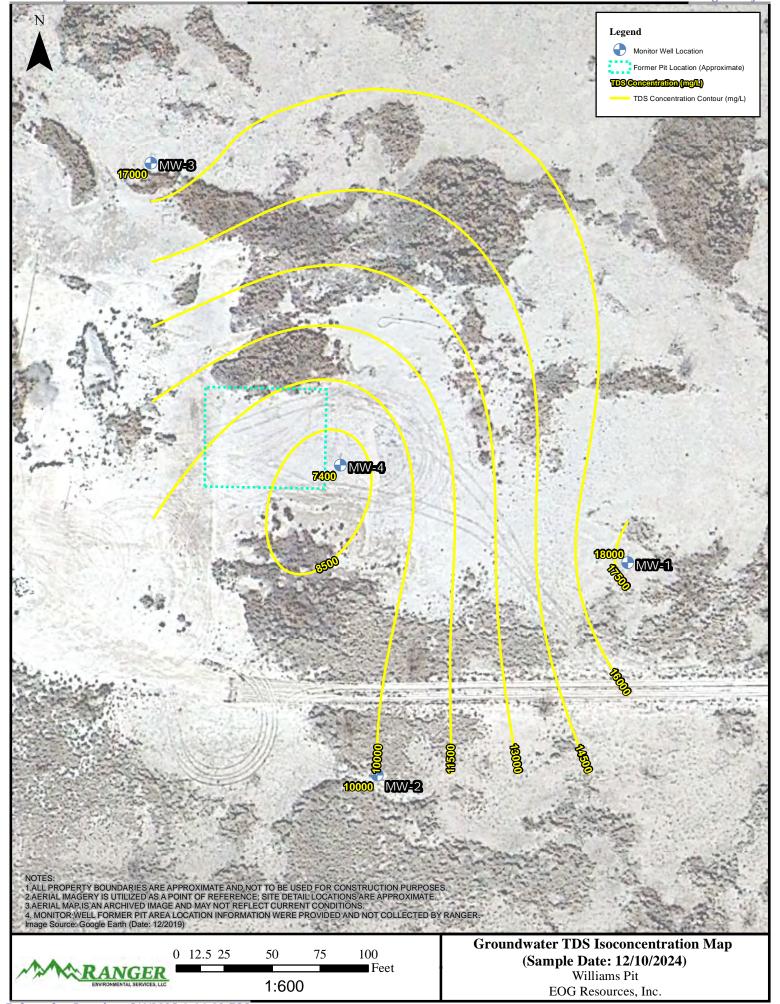


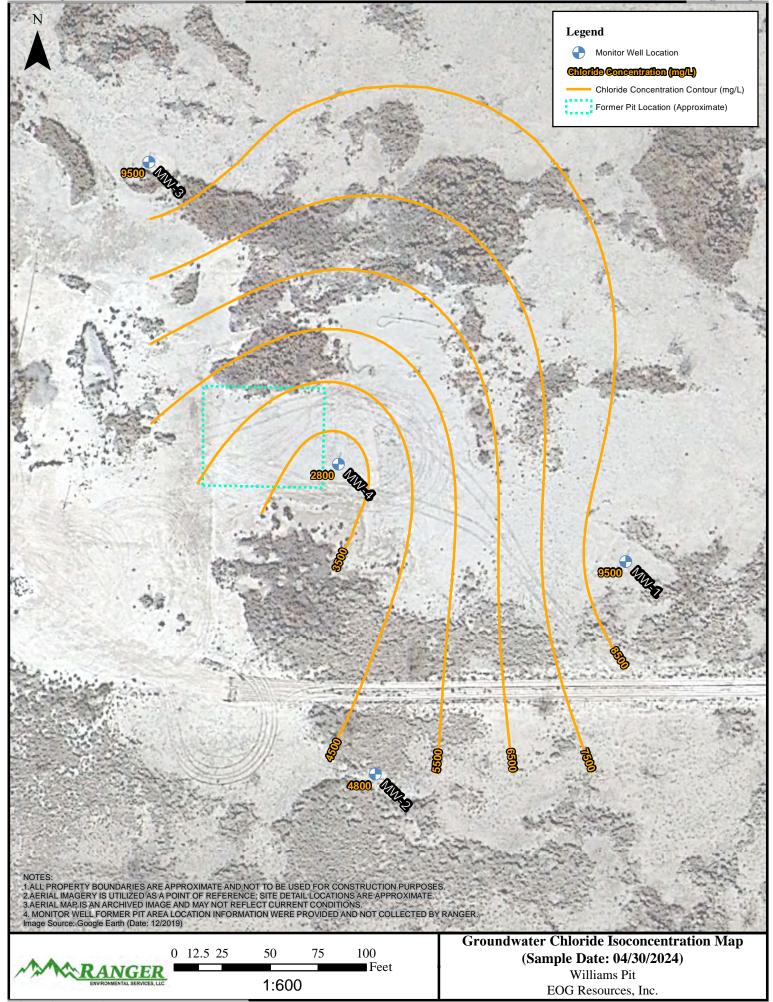


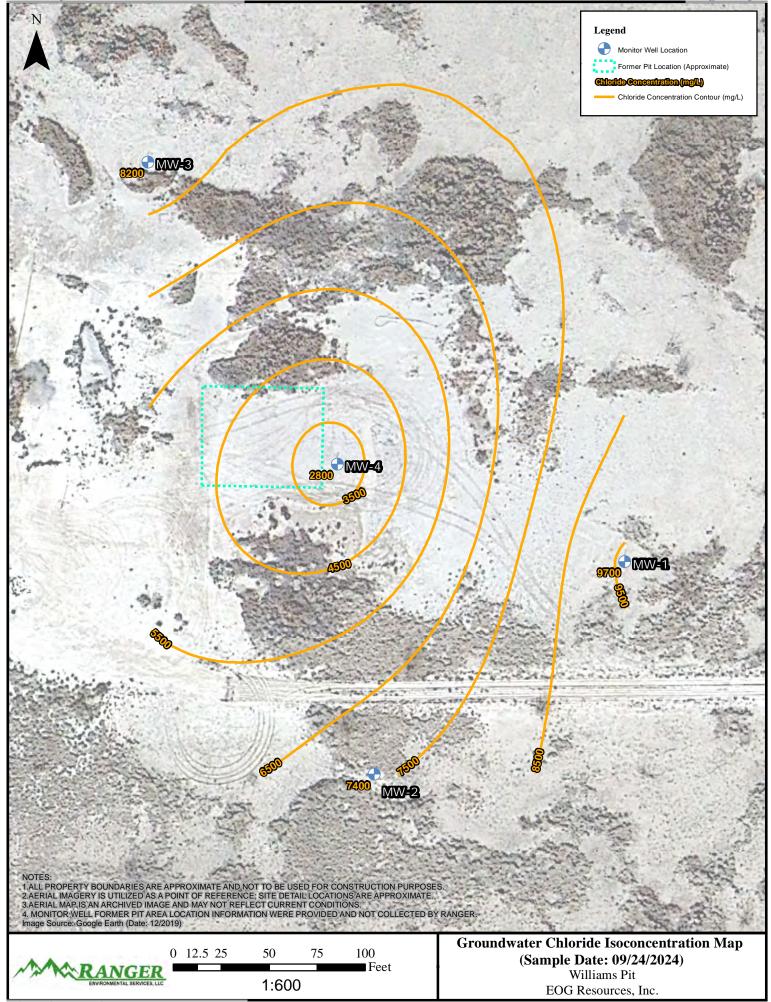


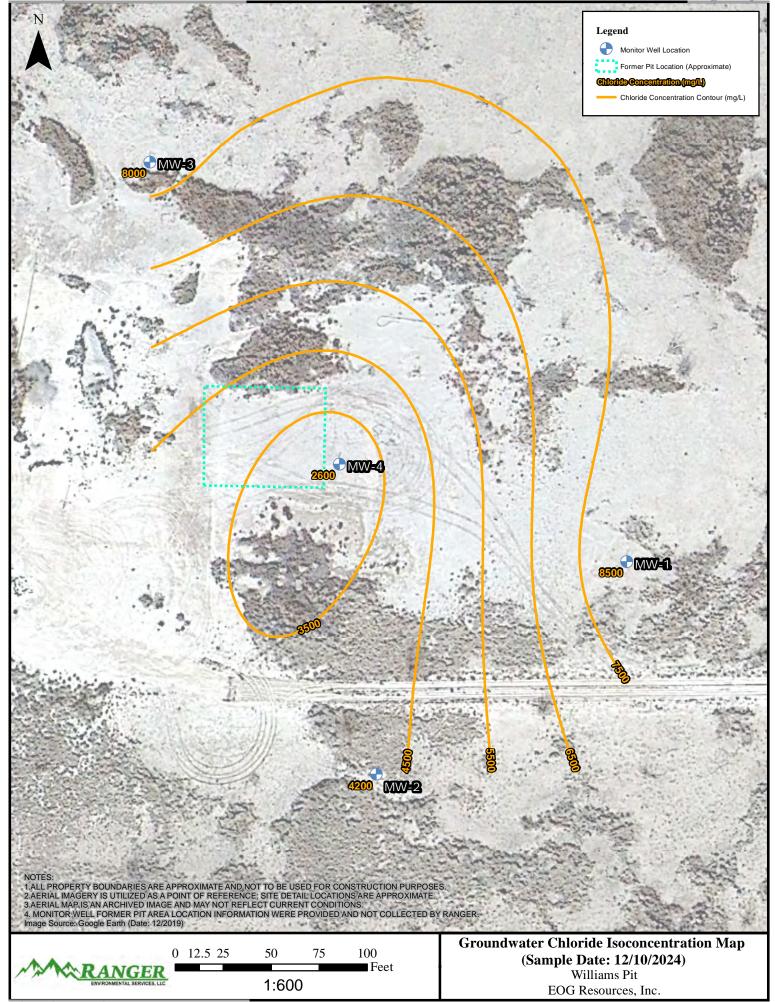


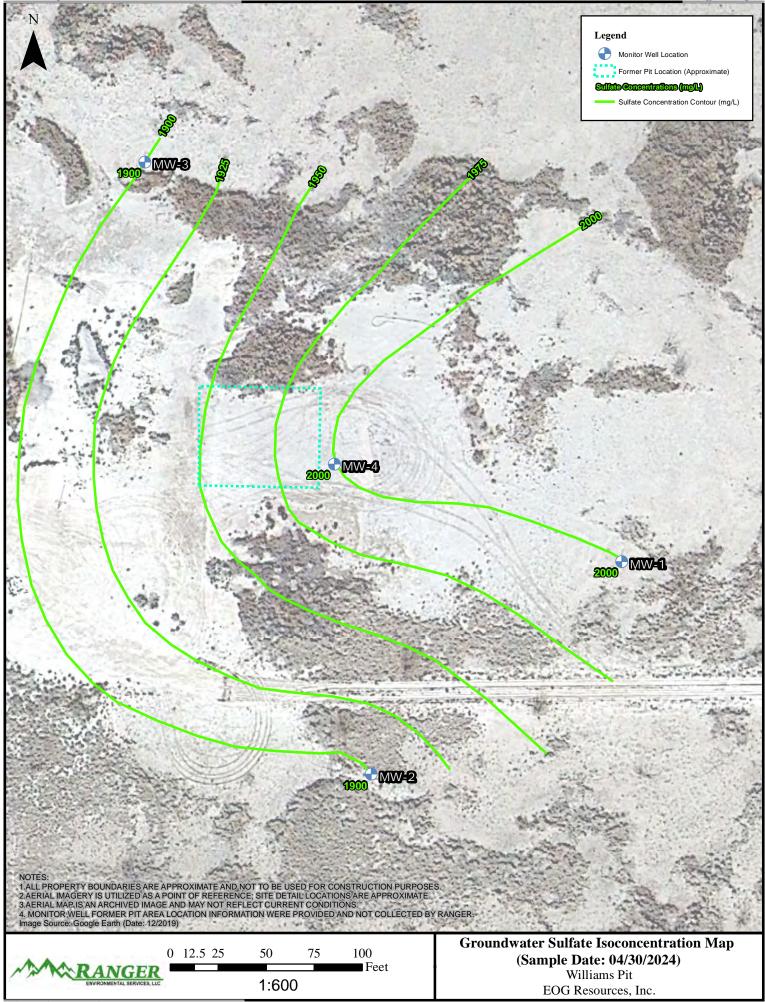


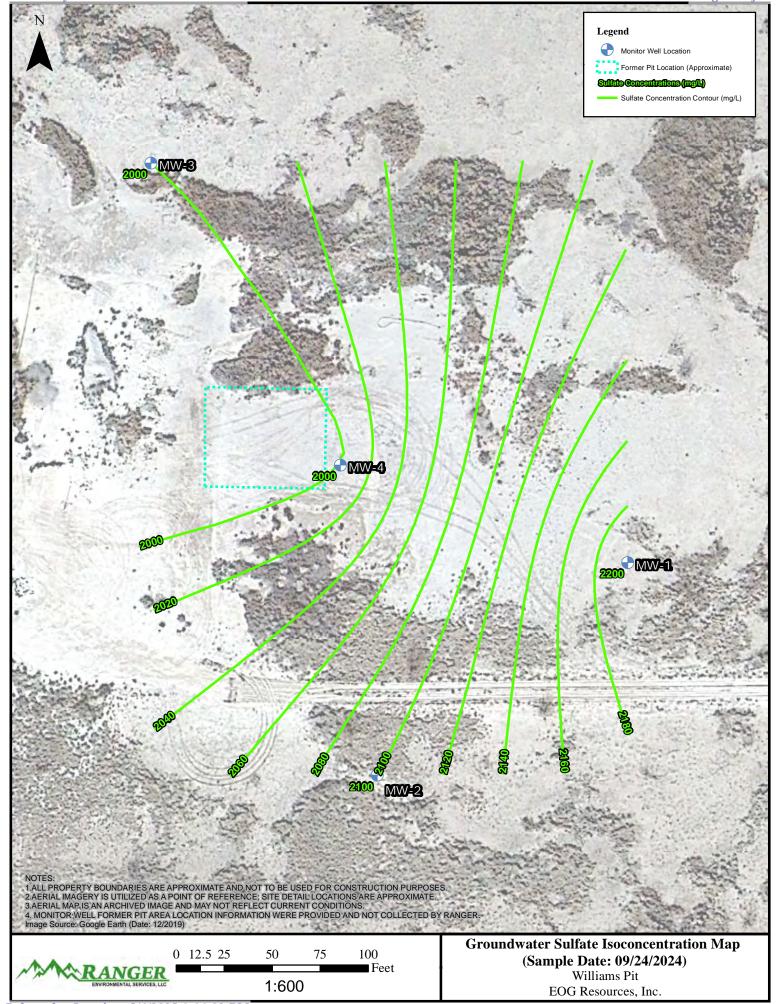


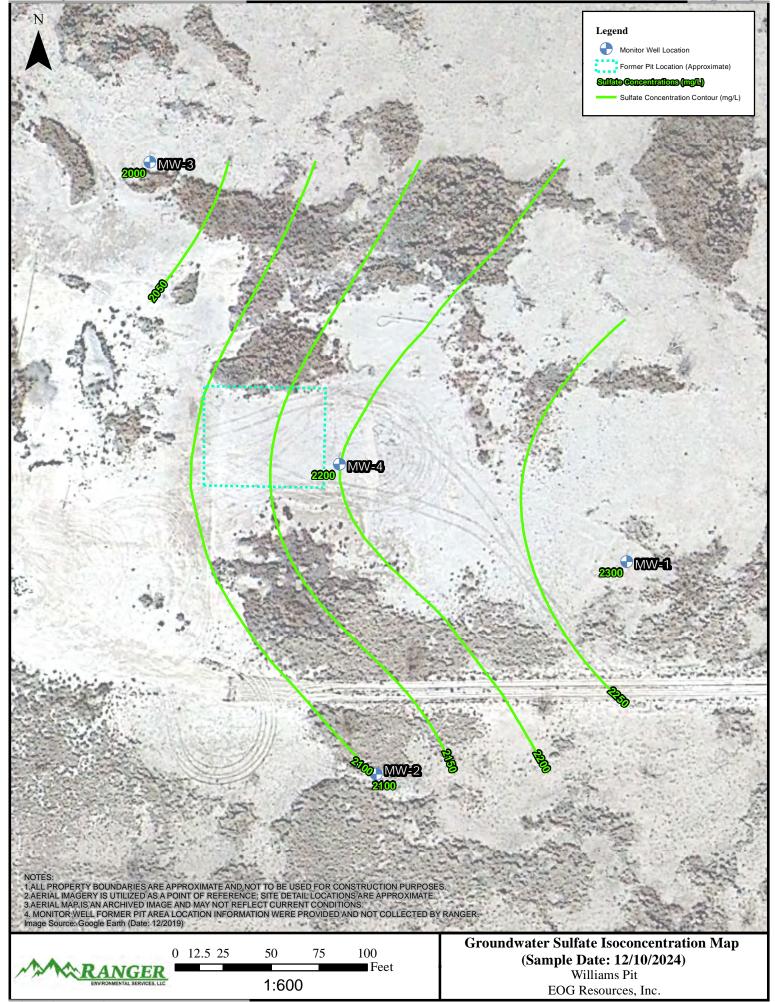












### **TABLES**

Cumulative Well Gauging Data
Cumulative Groundwater EPA Method 300.0: Anions
Cumulative Groundwater Dissolved Metals (Table 1 of 2)
Cumulative Groundwater Dissolved Metals (Table 2 of 2)
Cumulative Groundwater TPH and VOC Data Summary
Cumulative Groundwater Specific Conductance, pH, Alkalinity, and TDS

ATE 3/2002 9/2002	CASING ELEV. (FT)	DEPTH TO WATER (FT-BTOC)	LNAPL THICKNESS (FT)	GW ELEVATION (FT)	SCREENED INTERVAL
	3282.57	0.4.00		\ - <i>/</i>	(FT-BGS)
2/2002		31.92	0.00	3250.65	20'-40'
··	3282.57	32.05	0.00	3250.52	20'-40'
3/2004	3282.57	30.99	0.00	3251.58	20'-40'
1/2004	3282.57	30.40	0.00	3252.17	20'-40'
5/2004	3282.57	30.08	0.00	3252.49	20'-40'
1/2004	3282.57	29.99	0.00	3252.58	20'-40'
0/2004	3282.57	29.73	0.00	3252.84	20'-40'
/2018	3282.57	23.06	0.00	3259.51	20'-40'
3/2018	3282.57	23.15	0.00	3259.42	20'-40'
1/2019	3283.94	24.31	0.00	3259.63	20'-40'
9/2019	3283.94	25.14	0.00	3258.80	20'-40'
3/2020	3283.94	25.46	0.00	3258.48	20'-40'
3/2021	3283.94	25.23	0.00	3258.71	20'-40'
8/2023	3283.94	28.74	0.00	3255.20	20'-40'
0/2024	3283.94	28.65	0.00	3255.29	20'-40'
4/2024	3283.94	29.70	0.00	3254.24	20'-40'
0/2024	3283.94	29.62	0.00	3254.32	20'-40'
	5/2004 1/2004 5/2004 1/2004 0/2004 /2018 3/2018 1/2019 9/2019 3/2020 3/2021 8/2023 0/2024 4/2024	1/2004     3282.57       5/2004     3282.57       1/2004     3282.57       0/2004     3282.57       0/2018     3282.57       3/2018     3282.57       1/2019     3283.94       9/2019     3283.94       3/2020     3283.94       3/2021     3283.94       8/2023     3283.94       0/2024     3283.94       4/2024     3283.94	1/2004     3282.57     30.40       5/2004     3282.57     30.08       1/2004     3282.57     29.99       0/2004     3282.57     29.73       /2018     3282.57     23.06       3/2018     3282.57     23.15       1/2019     3283.94     24.31       9/2019     3283.94     25.14       3/2020     3283.94     25.46       3/2021     3283.94     25.23       8/2023     3283.94     28.74       0/2024     3283.94     28.65       4/2024     3283.94     29.70	1/2004       3282.57       30.40       0.00         5/2004       3282.57       30.08       0.00         1/2004       3282.57       29.99       0.00         0/2004       3282.57       29.73       0.00         /2018       3282.57       23.06       0.00         3/2018       3282.57       23.15       0.00         1/2019       3283.94       24.31       0.00         9/2019       3283.94       25.14       0.00         3/2020       3283.94       25.46       0.00         3/2021       3283.94       25.23       0.00         8/2023       3283.94       28.74       0.00         0/2024       3283.94       28.65       0.00         4/2024       3283.94       29.70       0.00	1/2004       3282.57       30.40       0.00       3252.17         5/2004       3282.57       30.08       0.00       3252.49         1/2004       3282.57       29.99       0.00       3252.58         0/2004       3282.57       29.73       0.00       3252.84         /2018       3282.57       23.06       0.00       3259.51         3/2018       3282.57       23.15       0.00       3259.42         1/2019       3283.94       24.31       0.00       3259.63         9/2019       3283.94       25.14       0.00       3258.80         3/2020       3283.94       25.46       0.00       3258.48         3/2021       3283.94       25.23       0.00       3258.71         8/2023       3283.94       28.74       0.00       3255.20         0/2024       3283.94       28.65       0.00       3255.29         4/2024       3283.94       29.70       0.00       3254.24

DATE	CASING ELEV. (FT)	DEPTH TO WATER (FT-BTOC)	LNAPL THICKNESS (FT)	GW ELEVATION (FT)	SCREENED INTERVAL (FT-BGS)
9/18/2002	3282.34	32.08	0.00	3250.26	23'-43'
9/19/2002	3282.34	31.85	0.00	3250.49	23'-43'
11/8/2004	3282.34	30.76	0.00	3251.58	23'-43'
12/1/2004	3282.34	30.42	0.00	3251.92	23'-43'
12/15/2004	3282.34	30.20	0.00	3252.14	23'-43'
12/21/2004	3282.34	30.03	0.00	3252.31	23'-43'
12/30/2004	3282.34	29.88	0.00	3252.46	23'-43'
3/6/2018	3282.34	22.85	0.00	3259.49	23'-43'
3/28/2018	3282.34	22.97	0.00	3259.37	23'-43'
3/11/2019	3283.66	24.12	0.00	3259.54	23'-43'
10/29/2019	3283.66	25.17	0.00	3258.49	23'-43'
9/18/2020	3283.66	25.41	0.00	3258.25	23'-43'
8/23/2021	3283.66	25.33	0.00	3258.33	23'-43'
11/28/2023	3283.66	28.98	0.00	3254.68	23'-43'
04/30/2024	3283.66	28.70	0.00	3254.96	23'-43'
09/24/2024	3283.66	29.90	0.00	3253.76	23'-43'
12/10/2024	3283.66	29.71	0.00	3253.95	23'-43'
	9/18/2002 9/19/2002 11/8/2004 12/1/2004 12/15/2004 12/21/2004 12/30/2004 3/6/2018 3/28/2018 3/11/2019 10/29/2019 9/18/2020 8/23/2021 11/28/2023 04/30/2024 09/24/2024	9/18/2002 3282.34 9/19/2002 3282.34 11/8/2004 3282.34 12/1/2004 3282.34 12/15/2004 3282.34 12/21/2004 3282.34 12/21/2004 3282.34 12/30/2004 3282.34 3/6/2018 3282.34 3/6/2018 3282.34 3/11/2019 3283.66 10/29/2019 3283.66 9/18/2020 3283.66 9/18/2020 3283.66 11/28/2023 3283.66 04/30/2024 3283.66 09/24/2024 3283.66	DATE         CASING ELEV. (FT)         WATER (FT-BTOC)           9/18/2002         3282.34         32.08           9/19/2002         3282.34         31.85           11/8/2004         3282.34         30.76           12/1/2004         3282.34         30.42           12/15/2004         3282.34         30.20           12/21/2004         3282.34         30.03           12/30/2004         3282.34         29.88           3/6/2018         3282.34         22.85           3/28/2018         3282.34         22.97           3/11/2019         3283.66         24.12           10/29/2019         3283.66         25.17           9/18/2020         3283.66         25.41           8/23/2021         3283.66         25.33           11/28/2023         3283.66         28.98           04/30/2024         3283.66         28.70           09/24/2024         3283.66         29.90	DATE         CASING ELEV. (FT)         WATER (FT-BTOC)         THICKNESS (FT)           9/18/2002         3282.34         32.08         0.00           9/19/2002         3282.34         31.85         0.00           11/8/2004         3282.34         30.76         0.00           12/1/2004         3282.34         30.42         0.00           12/15/2004         3282.34         30.20         0.00           12/21/2004         3282.34         30.03         0.00           12/30/2004         3282.34         29.88         0.00           3/6/2018         3282.34         22.85         0.00           3/28/2018         3282.34         22.97         0.00           3/11/2019         3283.66         24.12         0.00           10/29/2019         3283.66         25.17         0.00           9/18/2020         3283.66         25.41         0.00           8/23/2021         3283.66         25.33         0.00           11/28/2023         3283.66         28.98         0.00           04/30/2024         3283.66         28.70         0.00           09/24/2024         3283.66         29.90         0.00	DATE         CASING ELEV. (FT)         WATER (FT-BTOC)         THICKNESS (FT)         ELEVATION (FT)           9/18/2002         3282.34         32.08         0.00         3250.26           9/19/2002         3282.34         31.85         0.00         3250.49           11/8/2004         3282.34         30.76         0.00         3251.58           12/1/2004         3282.34         30.42         0.00         3251.92           12/15/2004         3282.34         30.20         0.00         3252.14           12/21/2004         3282.34         30.03         0.00         3252.31           12/30/2004         3282.34         29.88         0.00         3252.46           3/6/2018         3282.34         22.85         0.00         3259.49           3/28/2018         3282.34         22.97         0.00         3259.37           3/11/2019         3283.66         24.12         0.00         3259.54           10/29/2019         3283.66         25.17         0.00         3258.49           9/18/2020         3283.66         25.41         0.00         3258.33           11/28/2023         3283.66         25.33         0.00         3258.33           11/28/2024

WELL NUMBER	DATE	CASING ELEV. (FT)	DEPTH TO WATER (FT-BTOC)	LNAPL THICKNESS (FT)	GW ELEVATION (FT)	SCREENED INTERVAL (FT-BGS)
MW-3	9/18/2002	3282.98	32.35	0.00	3250.63	15'-35'
MW-3	9/19/2002	3282.98	32.38	0.00	3250.60	15'-35'
MW-3	11/8/2004	3282.98	31.06	0.00	3251.92	15'-35'
MW-3	12/1/2004	3282.98	30.00	0.00	3252.98	15'-35'
MW-3	12/15/2004	3282.98	30.10	0.00	3252.88	15'-35'
MW-3	12/21/2004	3282.98	29.98	0.00	3253.00	15'-35'
MW-3	12/30/2004	3282.98	29.96	0.00	3253.02	15'-35'
MW-3	3/6/2018	3282.98	23.70	0.00	3259.28	15'-35'
MW-3	3/28/2018	3282.98	23.73	0.00	3259.25	15'-35'
MW-3	3/11/2019	3284.35	24.96	0.00	3259.39	15'-35'
MW-3	10/29/2019	3284.35	25.97	0.00	3258.38	15'-35'
MW-3	9/18/2020	3284.35	26.15	0.00	3258.20	15'-35'
MW-3	8/23/2021	3284.35	26.03	0.00	3258.32	15'-35'
MW-3	11/28/2023	3284.35	29.74	0.00	3254.61	15'-35'
MW-3	04/30/2024	3284.35	29.62	0.00	3254.73	15'-35'
MW-3	09/24/2024	3284.35	30.71	0.00	3253.64	15'-35'
MW-3	12/10/2024	3284.35	30.71	0.00	3253.64	15'-35'

WELL NUMBER	DATE	CASING ELEV. (FT)	DEPTH TO WATER (FT-BTOC)	LNAPL THICKNESS (FT)	GW ELEVATION (FT)	SCREENED INTERVAL (FT-BGS)
MW-4	9/18/2002	3282.70	31.70	0.00	3251.00	23'-38'
MW-4	9/19/2002	3282.70	31.72	0.00	3250.98	23'-38'
MW-4	11/8/2004	3282.70	30.89	0.00	3251.81	23'-38'
MW-4	12/1/2004	3282.70	31.16	0.00	3251.54	23'-38'
MW-4	12/15/2004	3282.70	30.23	0.00	3252.47	23'-38'
MW-4	12/21/2004	3282.70	30.12	0.00	3252.58	23'-38'
MW-4	12/30/2004	3282.70	29.94	0.00	3252.76	23'-38'
MW-4	3/6/2018	3282.70	23.02	0.00	3259.68	23'-38'
MW-4	3/28/2018	3282.70	23.94	0.00	3258.76	23'-38'
MW-4	3/11/2019	3284.08	23.35	0.00	3260.73	23'-38'
MW-4	10/29/2019	3284.08	28.03	0.00	3256.05	23'-38'
MW-4	9/18/2020	3284.08	25.56	0.00	3258.52	23'-38'
MW-4	8/23/2021	3284.08	25.35	0.00	3258.73	23'-38'
MW-4	11/28/2023	3284.08	28.83	0.00	3255.25	23'-38'
MW-4	4/30/2024	3284.08	27.82	0.00	3256.26	23'-38'
MW-4	9/24/2024	3284.08	29.80	0.00	3254.28	23'-38'
MW-4	12/10/2024	3284.08	29.70	0.00	3254.38	23'-38'

### Notes:

<sup>1.</sup> Elevations referenced to a temporary on-site benchmark.

<sup>2.</sup> BTOC = below top of casing

### GROUNDWATER EPA METHOD 300.0: ANIONS WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

#### All Values Presented in Parts Per Million (mg/L) unless otherwise noted

SAMPLE ID	DATE	Fluoride	Chloride	Bromide	Phosphorus, Orthophosphate (As P)	Sulfate	Nitrogen, Nitrite (As N)	Nitrogen, Nitrate (As N)	Nitrate+Nitrite as N
SB-5	10/21/2000		30,842						
MW-1	9/19/2002		26,600						
MW-1	11/8/2004		26,992						
MW-1	3/17/2012	< 2.0	950	1.3	< 0.50	2,100			1.7
MW-1	6/18/2012	0.73	1,100	1.8	< 0.50	2,200			1
MW-1	9/12/2012	0.21	2,200	1.8	< 10	2,200			< 4.0
MW-1	12/7/2012	< 2.0	2,000	< 2.0	< 10	2,100			2.5
MW-1	3/12/2013	0.76	1,200	< 2.0	< 10	2,200			1.7
MW-1	6/27/2013	< 0.50	1,100	1.4	< 0.50	2,000			2.1
MW-1	3/28/2018	0.13	1,000	1.4	< 10	2,400			2.6
MW-1	3/11/2019	< 2.0	920	< 2.0	< 10	2,100			2.4
MW-1	10/29/2019	< 1.0	910	1.4	< 5.0	2,000	<1.0	2.3	
MW-1	9/18/2020	0.55	960	1.4	< 2.5	2,100			2.3
MW-1	8/23/2021	< 1.0	980	1.5	< 5.0	2,300			2.4
MW-1	3/22/2022	0.5	4,400	2.3	< 2.5	2,100			2.3
MW-1	8/3/2022	< 2.0	5,400	3.6	< 10	2,100			< 4.0
MW-1	11/28/2023	<2.0	9,400	4.4	<10	2,300			<10
MW-1	04/30/2024		9,500			2,000			
MW-1	09/24/2024		9,700			2,200			
MW-1	12/10/2024		8,500			2,300			
							•		
MW-2	9/19/2002		13,300						
MW-2	11/8/2004		19,994						
MW-2	3/17/2012	< 2.0	3,300	2.2	< 0.50	2,200			< 4.0
MW-2	6/18/2012	0.58	3,700	3.6	< 0.50	2,200			< 2.0
MW-2	9/12/2012	< 2.0	3,900	< 2.0	< 10	2,200			< 4.0
MW-2	12/7/2012	< 2.0	2,800	< 2.0	< 10	2,000			< 4.0
MW-2	3/12/2013	< 2.0	3,500	2.2	< 10	2,200			< 4.0
MW-2	6/27/2013	< 0.50	3,100	1.7	< 0.50	2,000			< 4.0
MW-2	3/28/2018	< 2.0	5,400	3	< 0.50	2,400			< 4.0
MW-2	3/11/2019	< 2.0	4,600	2.2	< 10	1,900			< 4.0
MW-2	10/29/2019	< 1.0	3,900	2.5	< 5.0	2,100	<1.0	1.9	
MW-2	9/18/2020	< 0.50	4,200	2.6	< 2.5	2,000			< 4.0
MW-2	8/23/2021	< 1.0	4,000	2.7	< 5.0	2,300			< 2.0
MW-2	3/22/2022	< 0.50	5,100	2.8	< 2.5	2,000			1.7
MW-2	8/3/2022	< 2.0	8,200	5.3	< 10	2,200			< 10
MW-2	11/28/2023	< 2.0	8,500	4.6	<10	2,200			< 10
MW-2	04/30/2024		4,800			1,900			
MW-2	09/24/2024		7,400			2,100			
MW-2	12/10/2024		4,200			2,100			

#### GROUNDWATER EPA METHOD 300.0: ANIONS WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

All Values Presented in Parts Per Million (mg/L) unless otherwise not
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SAMPLE ID	DATE	Fluoride	Chloride	Bromide	Phosphorus, Orthophosphate (As P)	Sulfate	Nitrogen, Nitrite (As N)	Nitrogen, Nitrate (As N)	Nitrate+Nitrite as N
MW-3	9/19/2002		33,700		`				
MW-3	11/8/2004		35,989						
MW-3	3/17/2012	< 2.0	26,000	8.2	< 10	1,900			< 100
MW-3	6/18/2012	< 2.0	26,000	14	< 10	1,900			< 10
MW-3	9/12/2012	< 1.0	20,000	< 10	< 50	2,000			< 4.0
MW-3	12/7/2012	< 2.0	17,000	11	< 10	1,600			< 20
MW-3	3/12/2013	< 2.0	19,000	3.1	< 10	1,900			< 20
MW-3	6/27/2013	< 1.0	16,000	6.3	< 10	1,800			< 10
MW-3	3/28/2018	< 1.0	16,000	4.9	< 5.0	2,400			< 10
MW-3	3/11/2019	< 2.0	12,000	3.4	< 10	1,700			< 10
MW-3	10/29/2019	< 1.0	11,000	4	< 5.0	2,000	<10	< 1.0	
MW-3	9/18/2020	< 2.0	13,000	5.2	< 10	2,100			< 10
MW-3	8/23/2021	< 1.0	13,000	5.3	< 5.0	2,300			< 10
MW-3	3/22/2022	< 2.0	12,000	4.7	< 10	2,100			< 10
MW-3	8/3/2022	< 2.0	9,200	5.7	< 10	2,100			< 10
MW-3	11/28/2023	< 2.0	9,700	5.4	<10	2,100			< 4.0
MW-3	04/30/2024		9,500			1,900			
MW-3	09/24/2024		8,200			2,000			
MW-3	12/10/2024		8,000			2,000			
			,			•			
MW-4	9/19/2002		8,150						
MW-4	11/8/2004		6,098						
MW-4	3/17/2012	< 2.0	3,600	2.7	< 0.50	2,200			< 4.0
MW-4	6/18/2012	0.56	3,300	5.3	< 0.50	2,200			< 2.0
MW-4	9/12/2012	< 2.0	4,000	< 2.0	< 10	2,300			< 4.0
MW-4	12/7/2012	< 2.0	3,100	< 2.0	< 0.50	2,100			< 4.0
MW-4	3/12/2013	< 2.0	3,100	2.4	< 10	2,200			< 2.0
MW-4	6/27/2013	< 0.50	2,500	2.1	< 0.50	2,100			< 4.0
MW-4	3/28/2018	< 2.0	5,100	3	< 0.50	2,300			< 4.0
MW-4	3/11/2019	< 2.0	3,600	< 2.0	< 10	1,900			< 4.0
MW-4	10/29/2019	< 1.0	3,200	2.3	< 5.0	2,100	< 1.0	1.9	
MW-4	9/18/2020	< 0.50	3,500	2.5	< 2.5	2,000			< 4.0
MW-4	8/23/2021	< 1.0	3,100	2.6	< 5.0	2,300			< 2.0
MW-4	3/22/2022	< 2.0	3,200	2.4	< 10	1,900			1.7
MW-4	8/3/2022	< 2.0	3,300	3.8	< 10	2,100			< 4.0
MW-4	11/28/2023	< 2.0	3,200	2.5	<0.50	2,200			< 4.0
MW-4	04/30/2024		2,800			2,000			
MW-4	09/24/2024		2,800			2,000			
MW-4	12/10/2024		2,600			2,200			

**20.6.2.3103 NMAC GW STANDARDS** 

(<10,000 mg/L)

A. Human Health Standards

B. Other Standards for Domestic Water Supply C. Standards for Irrigation Use

250

1.6

600

10 10 <sup>1</sup>

Notes:

This standarad is for nitrate. The nitrite standard is 1.0 mg/L.
 Exceedances of the listed closure criteria are highlighted in bold, red type.

### GROUNDWATER DISSOLVED METALS (TABLE 1 OF 2) WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

### All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Aluminum	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Silver	Sodium	Zinc
MW-1	3/17/2012		0.008			< 0.0020	770	< 0.0060		0.023	270	0.0041			2.9	< 0.0050	410	0.017
MW-1	6/18/2012		0.01			< 0.0020	790	< 0.0060		0.031	260	0.0033			2.9	< 0.0050	460	0.012
MW-1	9/12/2012		0.0092			< 0.0020	690	< 0.0060		0.039	250	0.0072			2.7	< 0.0050	520	0.025
MW-1	12/7/2012		0.014			< 0.0020	810	< 0.0060		0.41	270	0.018			5.1	< 0.0050	930	0.022
MW-1	3/12/2013		0.0086			< 0.0020	710	< 0.0060		0.039	230	0.0043			3.5	< 0.0050	510	0.018
MW-1	6/27/2013		0.0084			< 0.0020	800	< 0.0060		0.027	250	0.0034			3.5	< 0.050	520	0.013
MW-1	3/28/2018		0.0074			< 0.010	760	< 0.030		< 0.10	290	0.0024			2.7	0.03	380	< 0.050
MW-1	3/11/2019	0.03	0.0071			< 0.0020	680	< 0.0060		0.058	260	0.0045			2.7	0.012	360	0.018
MW-1	10/29/2019	< 0.020	0.0058			< 0.0020	750	< 0.0060		< 0.020	260	0.038			2.7	0.019	360	0.033
MW-1	9/18/2020	< 0.10	0.011	< 0.010	< 0.20	< 0.010	820	< 0.030	< 0.030	< 0.10	280	< 0.010	< 0.040	< 0.050	< 5.0	< 0.025	420	< 0.050
MW-1	8/23/2021	< 0.020	0.0068	< 0.0020	0.15	< 0.0020	690	< 0.0060	< 0.0060	0.037	260	0.0056	< 0.0080	< 0.010	2.9	< 0.0050	340	0.055
MW-1	3/22/2022	< 0.020	0.014	< 0.0020	0.13	< 0.0020	1,100	< 0.0060	0.0086	0.043	380	0.0046	< 0.040	< 0.010	5.2	0.0061	2,100	0.012
MW-1	8/3/2022	< 0.020	0.016	< 0.0020	0.1	< 0.0020	1,300	< 0.0060	< 0.0060	0.059	420	0.0066	< 0.0080	< 0.010	5.2	0.021	3,100	0.022
MW-1	11/28/2023	0.027	0.015	<0.0020	0.082	<0.0020	1,500	<0.0060	<0.0060	0.024	460	<0.0020	<0.0080	< 0.010	6	0.034	4,700	<0.010
MW-1	4/30/2024							<0.0060		<0.020		<0.0020				0.015		
MW-1	9/24/2024							<0.0060		<0.020		<0.0020				0.042		
MW-1	12/10/2024							<0.060		<0.50		<0.020				<0.050		
MW-2	3/17/2012		0.014			< 0.0020	910	< 0.0060		0.85	320	1.1			10	< 0.0050	1,800	0.041
MW-2	6/18/2012		0.023			< 0.0020	990	0.0071		0.41	330	1.3			9.8	< 0.0050	1,800	0.058
MW-2	9/12/2012		0.038			< 0.0020	840	0.1		7.9	280	1.4			11	< 0.0050	1,800	0.053
MW-2	12/7/2012		0.013			< 0.0020	900	< 0.0060		0.09	310	1.2			14	< 0.0050	1,900	0.11
MW-2	3/12/2013		0.011			< 0.0020	790	< 0.0060		0.084	280	1.1			12	< 0.0050	1,800	< 0.010
MW-2	6/27/2013		0.011			< 0.0020	850	< 0.0060		0.033	280	1.1			11	< 0.25	1,900	< 0.010
MW-2	3/28/2018		<0.010			<0.010	950	< 0.030		< 0.10	380	1.1			9.3	0.037	2,400	< 0.050
MW-2	3/11/2019	<0.020	0.011			< 0.0020	890	< 0.0060		0.046	340	0.88			9.6	0.015	2,500	0.019
MW-2	10/29/2019	0.45	0.011			< 0.0020	910	< 0.0060		0.27	330	0.82			10	0.023	2,100	0.062
MW-2	9/18/2020	< 0.10	0.015	< 0.010	0.21	< 0.010	860	< 0.030	< 0.030	< 0.10	330	0.72	< 0.040	< 0.050	11	< 0.025	2,400	< 0.050
MW-2	8/23/2021	< 0.10	0.01	< 0.010	0.21	< 0.010	770	< 0.030	< 0.030	0.036	300	0.72	< 0.040	< 0.050	9.6	< 0.025	2,100	< 0.050
MW-2	3/22/2022	< 0.10	< 0.010	< 0.010	0.21	< 0.010	950	< 0.030	< 0.030	< 0.020	360	0.76	< 0.040	< 0.050	11	< 0.025	2,600	< 0.050
MW-2	8/3/2022	< 0.020	0.016	< 0.0020	0.18	< 0.0020	1,200	< 0.0060	< 0.0060	0.034	400	0.64	< 0.0080	< 0.010	14	0.02	5,400	0.13
MW-2	11/28/2023	0.027	0.011	< 0.0020	0.14	<0.0020	1,100	<0.0060	<0.0060	0.032	380	0.39	< 0.0080	< 0.010	13	0.025	4,600	<0.010
MW-2	4/30/2024							<0.0060		0.023		0.27				0.0085		
MW-2	9/24/2024							<0.0060		<0.020		0.71				0.033		
MW-2	12/10/2024							<0.060		<0.50		0.56				<0.050		
MW-3	3/17/2012		0.047			< 0.010	2,700	< 0.030		< 0.10	810	0.015			12	< 0.025	9,400	< 0.050
MW-3	6/18/2012		0.056			< 0.010	2,900	< 0.030		< 0.10	830	0.016			11	< 0.025	10,000	< 0.050
MW-3	9/12/2012		0.047			< 0.010	2,500	< 0.030		< 0.10	750	0.013			9.3	< 0.025	8,400	< 0.050
MW-3	12/7/2012		0.048			< 0.0020	2,200	< 0.0060		0.049	670	0.01			52	< 0.025	8,800	< 0.010
MW-3	3/12/2013		0.048			< 0.0020	2,700	< 0.0060		0.055	820	0.0087			19	0.0089	8,000	0.017

### GROUNDWATER DISSOLVED METALS (TABLE 1 OF 2) WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

All Values Presented in Parts Per Million (mg/L)

												T						
SAMPLE ID	DATE	Aluminum	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Silver	Sodium	Zinc
MW-3	6/27/2013		0.042			< 0.0020	2,400	0.0064		0.041	650	0.0073			16	< 0.25	8,900	< 0.01
MW-3	3/28/2018		0.03			< 0.010	1,400	< 0.030		< 0.10	510	< 0.010			7.5	0.062	6,100	< 0.05
MW-3	3/11/2019	< 0.020	0.028			< 0.0020	1,500	< 0.0060		0.025	470	0.0031			7	0.024	6,300	< 0.0
MW-3	10/29/2019	< 0.10	0.025			< 0.010	1,500	< 0.030		< 0.10	490	< 0.010			7.5	0.032	6,300	< 0.0
MW-3	9/18/2020	< 0.10	0.032	< 0.010	< 0.20	< 0.010	1,600	< 0.030	< 0.030	< 0.10	520	< 0.010	< 0.040	< 0.050	9.9	< 0.025	5,800	< 0.0
MW-3	8/23/2021	< 0.10	0.026	< 0.010	< 0.20	< 0.010	1,500	< 0.030	< 0.030	0.057	470	< 0.010	< 0.040	< 0.050	10	< 0.025	6,200	< 0.0
MW-3	3/22/2022	< 0.10	0.02	< 0.010	< 0.20	< 0.010	1,300	< 0.030	< 0.030	0.095	440	0.016	< 0.040	< 0.050	9.5	< 0.025	6,300	< 0.0
MW-3	8/3/2022	< 0.020	0.021	< 0.0020	0.096	< 0.0020	1,300	< 0.0060	< 0.0060	0.049	430	0.0039	< 0.0080	< 0.010	6.9	0.021	6,200	0.1
MW-3	11/28/2023	0.033	0.017	< 0.0020	0.076	< 0.0020	1,300	< 0.0060	< 0.0060	< 0.020	430	< 0.0020	<0.0080	< 0.010	6.5	0.030	5,200	< 0.0
MW-3	4/30/2024							<0.0060		<0.020		<0.0020				0.014		
MW-3	9/24/2024							<0.0060		<0.020		<0.0020				0.038		
MW-3	12/10/2024							<0.030		<0.50		<0.010				<0.050		
	1	1				1	•	1			1	•			'			
MW-4	3/17/2012		0.014			< 0.0020	820	< 0.0060		0.11	360	0.011			18	< 0.0050	1,900	0.0
MW-4	6/18/2012		0.018			< 0.0020	870	< 0.0060		0.14	360	0.018			19	< 0.0050	1,900	0.0
MW-4	9/12/2012		0.016			< 0.0020	760	< 0.0060		0.043	340	0.19			18	< 0.0050	1,800	< 0.0
MW-4	12/7/2012		0.014			< 0.0020	800	< 0.0060		0.12	370	0.015			30	< 0.0050	1,700	< 0.0
MW-4	3/12/2013		0.014			< 0.0020	680	< 0.0060		0.07	320	0.025			19	< 0.0050	1,500	< 0.
MW-4	6/27/2013		0.014			< 0.0020	810	< 0.0060		0.082	360	0.03			18	< 0.10	1,500	< 0.
MW-4	3/28/2018		0.015			< 0.010	920	< 0.030		< 0.10	430	0.014			18	0.04	2,300	< 0.0
MW-4	3/11/2019	< 0.020	0.012			< 0.0020	730	< 0.0060		0.032	320	0.0085			16	0.013	2,000	0.0
MW-4	10/29/2019	< 0.020	0.013			< 0.0020	800	< 0.0060		< 0.020	340	0.026			16	0.02	2,000	0.0
MW-4	9/18/2020	< 0.10	0.017	< 0.010	0.24	< 0.010	790	< 0.030	< 0.030	< 0.10	320	0.029	< 0.040	< 0.050	16	< 0.025	2,100	< 0.0
MW-4	8/23/2021	< 0.10	< 0.010	< 0.010	0.21	< 0.010	770	< 0.030	< 0.030	< 0.020	330	0.015	< 0.040	< 0.050	17	< 0.025	1,600	< 0.0
MW-4	3/22/2022	< 0.020	0.014	< 0.0020	0.25	< 0.0020	790	< 0.0060	0.0062	< 0.020	340	0.039	< 0.0080	< 0.010	20	< 0.0050	2,000	< 0.0
MW-4	8/3/2022	< 0.020	0.013	< 0.0020	0.25	< 0.0020	790	< 0.0060	< 0.0060	0.037	340	0.2	< 0.0080	< 0.010	18	0.014	2,100	< 0.0
MW-4	11/28/2023	0.031	0.0098	< 0.0020	0.16	< 0.0020	810	< 0.0060	< 0.0060	0.037	340	0.11	< 0.0080	< 0.010	17	0.019	1,700	< 0.
MW-4	4/30/2024							<0.0060		<0.020		0.050				0.0075		
MW-4	9/24/2024							<0.0060		<0.020		0.12				0.023		
MW-4	12/10/2024							<0.0030		<0.50		0.080				<0.050		

20.6.2.3103 NMAC GW STANDARDS (<10,000 mg/L)

 A. Human Health Standards
 2
 0.004
 0.005
 0.05

B. Other Standards for Domestic Water Supply

1.0

0.2

C. Standards for Irrigation Use 5.0 0.75 0.05 1.0 0.2

Notes:

1. Exceedances of the listed closure criteria are highlighted in bold, red type.

10

0.05

### GROUNDWATER DISSOLVED METALS (TABLE 2 OF 2) WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

#### All Values Presented in Parts Per Million (mg/L)

All Values Presented in Parts Per Million (mg/L)													
SAMPLE ID	DATE	Antimony	Arsenic	Copper	Lead	Mercury	Selenium	Thallium	Uranium				
MW-1	3/17/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.024		0.0062				
MW-1	6/18/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.025		0.0067				
MW-1	9/12/2012		0.0022	< 0.0060	< 0.0010	< 0.00020	0.024		0.007				
MW-1	12/7/2012		0.0027	< 0.0060	0.0011	< 0.00020	0.023		0.007				
MW-1	3/12/2013		0.0017	< 0.0060	< 0.0050	< 0.00020	0.022		0.007				
MW-1	6/27/2013		< 0.010	< 0.0060	< 0.0050	< 0.00020	0.032		< 0.010				
MW-1	3/28/2018		< 0.0050	< 0.0050	< 0.0025	< 0.00020	0.02		0.0056				
MW-1	3/11/2019	< 0.0050	< 0.0050	< 0.0060	< 0.0025	< 0.00020	0.02	< 0.0025	0.0056				
MW-1	10/29/2019	< 0.0050	< 0.0050	< 0.0060	< 0.0025		0.02	< 0.0025	0.0064				
MW-1	9/18/2020	< 0.020	< 0.020	< 0.030	< 0.010		< 0.020	< 0.010	< 0.010				
MW-1	8/23/2021	< 0.010	< 0.010	< 0.0060	< 0.0050		0.017	< 0.0025	0.0056				
MW-1	3/22/2022	< 0.020	< 0.020	< 0.020	< 0.010		< 0.020	< 0.0050	< 0.010				
MW-1	8/3/2022	< 0.010	< 0.010	< 0.0060	< 0.0050		0.022	< 0.0025	0.0055				
MW-1	11/28/2023	< 0.0010	0.022	< 0.0060	< 0.00050		0.019	<0.00025	0.0050				
MW-1	04/30/2024		0.0015				0.018						
MW-1	9/25/2024		0.0036				0.020						
MW-1	12/10/2024		<0.0050				0.022						
MW-2	3/17/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.029		0.0089				
MW-2	6/18/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.028		0.01				
MW-2	9/12/2012		0.0051	< 0.0060	0.0054	< 0.00020	0.025		0.0086				
MW-2	12/7/2012		0.003	< 0.0060	< 0.0050	< 0.00020	0.026		0.0099				
MW-2	3/12/2013		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.019		0.0084				
MW-2	6/27/2013		0.0056	< 0.0060	< 0.0050	< 0.00020	0.054		< 0.010				
MW-2	3/28/2018		0.0069	< 0.0050	< 0.0025	< 0.00020	0.029		0.0081				
MW-2	3/11/2019	< 0.0050	< 0.0050	< 0.0060	< 0.0025	< 0.00020	0.024	< 0.0025	0.0079				
MW-2	10/29/2019	< 0.010	< 0.010	< 0.0060	< 0.0050		0.027	< 0.0050	0.0072				
MW-2	9/18/2020	< 0.020	< 0.020	< 0.030	< 0.010		0.022	< 0.010	< 0.010				
MW-2	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050		0.019	< 0.0025	0.007				
MW-2	3/22/2022	< 0.020	< 0.020	< 0.020	< 0.010		< 0.020	< 0.0050	< 0.010				
MW-2	8/3/2022	< 0.010	< 0.010	< 0.0060	< 0.0050		0.021	< 0.0025	0.0077				
MW-2	11/28/2023	< 0.010	0.015	< 0.0060	< 0.00050		0.017	0.00032	0.0066				
MW-2	04/30/2024		0.011				0.017						
MW-2	9/25/2024		0.0030				0.018						
MW-2	12/10/2024		<0.0050				0.020						
MW-3	3/17/2012		0.013	< 0.030	< 0.025	< 0.00020	0.04		0.01				
MW-3	6/18/2012		< 0.020	< 0.030	< 0.025	< 0.00020	0.036		< 0.020				
MW-3	9/12/2012		0.0081	< 0.0060	< 0.010	< 0.00020	0.037		0.011				
MW-3	12/7/2012		0.0056	< 0.0060	< 0.020	< 0.00020	0.033		< 0.020				
MW-3	3/12/2013		< 0.010	< 0.0060	< 0.0050	< 0.00020	0.018		< 0.010				
MW-3	6/27/2013		0.019	< 0.0060	< 0.0050	< 0.00020	0.018		0.011				
MW-3	3/28/2018		0.012	< 0.010	< 0.0050	< 0.00020	0.018		0.007				
MW-3	3/11/2019	< 0.0050	< 0.0050	< 0.0060	< 0.0025	< 0.00020	0.019	< 0.0025	0.0072				
MW-3	10/29/2019	< 0.010	< 0.010	< 0.030	< 0.0050		0.014	< 0.0050	0.0065				
MW-3	9/18/2020	< 0.020	< 0.020	< 0.030	< 0.010		< 0.020	< 0.010	< 0.010				
MW-3	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050		0.019	< 0.0025	0.0073				
MW-3	3/22/2022	< 0.020	< 0.020	< 0.020	< 0.010		< 0.020	< 0.0050	< 0.010				
MW-3	8/3/2022	< 0.010	< 0.010	< 0.0060	< 0.0050		0.016	< 0.0025	0.0063				
MW-3	11/28/2023	< 0.010	0.019	< 0.0060	< 0.00050		0.017	< 0.00025	0.0062				
MW-3	04/30/2024		0.0016				0.016						
MW-3	9/25/2024		0.0029				0.018						
MW-3	12/10/2024		0.0050				0.023						

#### GROUNDWATER DISSOLVED METALS (TABLE 2 OF 2) WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Antimony	Arsenic	Copper	Lead	Mercury	Selenium	Thallium	Uranium
MW-4	3/17/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.026		0.009
MW-4	6/18/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.028		0.01
MW-4	9/12/2012		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.026		0.0092
MW-4	12/7/2012		0.0035	< 0.0060	< 0.0050	< 0.00020	0.028		0.0089
MW-4	3/12/2013		< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.022		0.0081
MW-4	6/27/2013		< 0.010	< 0.0060	< 0.050	< 0.00020	0.046		< 0.010
MW-4	3/28/2018		0.0061	< 0.0050	< 0.0025	< 0.00020	0.034		0.0083
MW-4	3/11/2019	< 0.0050	< 0.0050	< 0.0060	< 0.0025	< 0.00020	0.026	< 0.0025	0.0073
MW-4	10/29/2019	< 0.010	< 0.010	< 0.0060	< 0.0050		0.022	< 0.0050	0.007
MW-4	9/18/2020	< 0.020	< 0.020	< 0.030	< 0.010		< 0.020	< 0.010	< 0.010
MW-4	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050		0.021	< 0.0025	0.0071
MW-4	3/22/2022	< 0.020	< 0.020	< 0.020	< 0.010		0.025	< 0.0050	< 0.010
MW-4	8/3/2022	< 0.0050	< 0.0050	< 0.0060	< 0.0025		0.022	< 0.0012	0.0068
MW-4	11/28/2023	< 0.0050	0.0087	< 0.0060	<0.0025		0.028	< 0.0012	0.0067
MW-4	04/30/2024		<0.0025				0.017		
MW-4	9/25/2024		0.0011				0.022		
MW-4	12/10/2024		<0.0050				0.022		

20.6.2.3103 NMAC GW STANDARDS (<10,000 mg/L)

A. Human Health Standards 0.006 0.015 0.002 0.05 0.002 0.03 1.0

B. Other Standards for Domestic Water Supply

C. Standards for Irrigation Use

Notes:

1. Exceedances of the listed closure criteria are highlighted in bold, red type.

## GROUNDWATER TPH & VOC DATA SUMMARY WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

### All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO	TPH DRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4- Trimethyl benzene	1,3,5- Trimethyl benzene	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene
SB-5	10/21/2000	<1.00	<0.5	<0.5		0.535	0.012	0.02	0.034					
MW-1	9/19/2002					<0.001	<0.001	<0.001	<0.001					
MW-1	11/8/2004					<0.002	<0.002	<0.002	<0.006					
MW-1	3/17/2012				<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002	<0.004	<0.004
MW-1	6/18/2012				< 0.001	< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-1	9/12/2012					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-1	12/7/2012					< 0.002	< 0.002	< 0.002	< 0.004			< 0.004		
MW-1	3/12/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-1	6/27/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-1	3/28/2018					< 0.001	< 0.001	< 0.001	<0.0015			< 0.002		
MW-1	3/11/2019					<0.001	<0.001	<0.001	<0.0015			<0.002	<0.004	<0.004
MW-1	10/29/2019					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002		
MW-1	9/18/2020					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002	< 0.004	< 0.004
MW-1	8/23/2021					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-1	3/22/2022					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MW-1	8/3/2022					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MW-1	11/28/2023					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MW-1	4/30/2024					< 0.001	< 0.001	< 0.001	< 0.0015					
MW-1	9/24/2024					< 0.001								
MW-1	12/10/2024					<0.001								
MW-2	9/19/2002					< 0.001	< 0.001	< 0.001	< 0.001					
MW-2	11/8/2004					<0.002	<0.002	<0.002	<0.006					
MW-2	3/17/2012				<0.002	<0.002	<0.002	< 0.002	<0.004	<0.002	<0.002	<0.004	<0.008	<0.008
MW-2	6/18/2012				< 0.001	< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-2	9/12/2012					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-2	12/7/2012					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-2	3/12/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-2	6/27/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-2	3/28/2018					< 0.001	< 0.001	< 0.001	<0.0015			< 0.002		
MW-2	3/11/2019					<0.001	<0.001	<0.001	<0.0015			<0.002	<0.004	<0.004
MW-2	10/29/2019					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002		
MW-2	9/18/2020					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002	< 0.004	< 0.004
MW-2	8/23/2021					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-2	3/22/2022					0.0058	<0.001	< 0.001	<0.0015			<0.002	<0.004	<0.004
MW-2	8/3/2022					0.047	< 0.001	< 0.001	<0.0015			<0.002	<0.004	<0.004
MW-2	11/28/2023					0.026	< 0.001	< 0.001	<0.0015			<0.002	<0.004	<0.004
MW-2	4/30/2024					0.0012	< 0.001	< 0.001	<0.0015					
MW-2	9/24/2024					0.0012								
MW-2	12/10/2024					<0.001								

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# **GROUNDWATER TPH & VOC DATA SUMMARY WILLIAMS PIT EDDY COUNTY, NEW MEXICO** AP-22

# All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO	TPH DRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4- Trimethyl benzene	1,3,5- Trimethyl benzene	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalen
MW-3	9/19/2002					0.002	<0.001	<0.001	<0.001					
MW-3	11/8/2004					<0.002	<0.002	<0.002	<0.006					
MW-3	3/17/2012				<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002	<0.004	<0.004
MW-3	6/18/2012				< 0.001	< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-3	9/12/2012					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-3	12/7/2012					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-3	3/12/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-3	6/27/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-3	3/28/2018					< 0.001	< 0.001	< 0.001	<0.0015			< 0.002		
MW-3	3/11/2019					<0.001	<0.001	<0.001	<0.0015			<0.002	<0.004	<0.004
MW-3	10/29/2019					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002		
MW-3	9/18/2020					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002	< 0.004	< 0.004
MW-3	8/23/2021					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-3	3/22/2022					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-3	8/3/2022					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-3	11/28/2023					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-3	4/30/2024					< 0.001	< 0.001	< 0.001	< 0.0015					
MW-3	9/24/2024					< 0.001								
MW-3	12/10/2024					<0.001								

0.03 <sup>1</sup>

0.03<sup>1</sup>

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# GROUNDWATER TPH & VOC DATA SUMMARY WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

## All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO	TPH DRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4- Trimethyl benzene	1,3,5- Trimethyl benzene	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene
MW-4	9/19/2002					0.142	<0.001	<0.001	0.006					
MW-4	11/8/2004					0.002	<0.002	<0.002	<0.006					
MW-4	3/17/2012				<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.002	<0.004	<0.004
MW-4	6/18/2012				< 0.001	< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-4	9/12/2012					0.0014	< 0.001	< 0.001	< 0.002			< 0.002		
MW-4	12/7/2012					0.0022	< 0.001	< 0.001	< 0.002			< 0.002		
MW-4	3/12/2013					< 0.001	< 0.001	< 0.001	< 0.002			< 0.002		
MW-4	6/27/2013					0.0014	<0.001	<0.001	<0.002			<0.002		
MW-4	3/28/2018					< 0.001	< 0.001	< 0.001	<0.0015			< 0.002		
MW-4	3/11/2019					<0.001	<0.001	<0.001	<0.0015			<0.002	<0.004	<0.004
MW-4	10/29/2019					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002		
MW-4	9/18/2020					< 0.001	< 0.001	< 0.001	< 0.0015			< 0.002	< 0.004	< 0.004
MW-4	8/23/2021					<0.001	<0.001	<0.001	< 0.0015			<0.002	<0.004	<0.004
MW-4	3/22/2022					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MVV-4	8/3/2022					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MW-4	11/28/2023					< 0.001	< 0.001	< 0.001	< 0.0015			<0.002	<0.004	<0.004
MW-4	4/30/2024					< 0.001	< 0.001	< 0.001	< 0.0015					
MW-4	9/24/2024					< 0.001								
MW-4	12/10/2024					<0.001								

B. Other Standards for Domestic Water Supply 0.1

C. Standards for Irrigation Use

#### Notes:

1. The 0.03 mg/L standard is for total naphthalene plus monomethylnaphthalenes

2. Exceedances of the listed closure criteria are highlighted in bold, red type.

# GROUNDWATER SPECIFIC CONDUCTANCE, pH, ALKALINITY, AND TDS WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

All Values Presented in Parts Per Million (mg/L)

					Alkalinity (mg/L	)	
SAMPLE ID	DATE	Conductivity µmhos/c	рН	Bicarbonate (As CaCO3)	Carbonate (As CaCO3)	Total Alkalinity (as CaCO3)	TDS (mg/L)
MW-1	9/19/2002						36,800
MW-1	11/8/2004						33,500
MW-1	3/17/2012	5,700	7.28	200	< 2.0	200	4,820
MW-1	6/18/2012	5,800	7.09	200	< 2.0	200	5,400
MW-1	9/12/2012	8,400	6.98	220	< 2.0	220	6,300
MW-1	12/7/2012	8,600	6.99	200	< 2.0	200	7,260
MW-1	3/12/2013	6,400	7.34	210	< 2.0	210	5,730
MW-1	6/27/2013	6,900	7.18	210	< 2.0	210	5,270
MW-1	3/28/2018	5,700		208	< 2.000	208	5,060
MW-1	3/11/2019	5,900	7.14	202	< 2.000	202	4,620
MW-1	10/29/2019	6,100		204.5	< 2.000	204.5	4,880
MW-1	9/18/2020	6,100	7.23	202.4	< 2.000	202.4	5,110
MW-1	8/23/2021	6,100		200.2	< 2.000	200.2	4,970
MW-1	3/22/2022	18,000	7.52	188	< 2.000	188	10,500
MW-1	8/3/2022	25,000	7.24	184.8	< 2.000	184.8	14,600
MW-1	11/28/2023	33,000	7.01	181.0	<2.000	181.0	19,700
MW-1	4/30/2024						24,000
MW-1	9/24/2024						23,000
MW-1	12/10/2024						18,000
	*	•		•			
MW-2	9/19/2002						22,500
MW-2	11/8/2004						25,000
MW-2	3/17/2012	13,000	7.23	230	< 2.0	230	8,800
MW-2	6/18/2012	14,000	7.01	220	< 2.0	220	9,880
MW-2	9/12/2012	16,000	6.92	280	< 2.0	280	9,640
MW-2	12/7/2012	14,000	6.94	220	< 2.0	220	8,980
MW-2	3/12/2013	14,000	7.28	230	< 2.0	230	9,630
MW-2	6/27/2013	15,000	7.12	230	< 2.0	230	8,960
MW-2	3/28/2018	18,000		227.8	< 2.000	227.8	11,500
MW-2	3/11/2019	20,000	7.09	224.7	< 2.000	224.7	11,200
MW-2	10/29/2019	18,000		224.9	< 2.000	224.9	10,500
MW-2	9/18/2020	18,000	7.13	224.1	< 2.000	224.1	10,400
MW-2	8/23/2021	21,000		214.7	< 2.000	214.7	10,500
MW-2	3/22/2022	21,000	7.61	207.4	< 2.000	207.4	11,900
MW-2	8/3/2022	38,000	7.00	208.9	< 2.000	208.9	20,700
MW-2	11/28/2023	32,000	7.04	207.4	<2.000	207.4	18,500
MW-2	4/30/2024						13,000
MW-2	9/24/2024						19,000
MW-2	12/10/2024						10,000
			<u> </u>			<u> </u>	-,
MW-3	9/19/2002						50,100
MW-3	11/8/2004						54,500
MW-3	3/17/2012	69,000	7.05	210	< 2.0	210	39,000
MW-3	6/18/2012	70,000	6.87	210	< 2.0	210	35,800
MW-3	9/12/2012	67,000	6.78	210	< 2.0	210	38,700
MW-3	12/7/2012	68,000	6.7	200	< 2.0	200	35,300
MW-3	3/12/2013	64,000	7.15	210	< 2.0	210	35,400
MW-3	6/27/2013	65,000	6.96	210	< 2.0	210	34,200
MW-3	3/28/2018	41,000		231.7	< 2.000	231.7	24,300
MW-3	3/11/2019	40,000	7.01	222.4	< 2.000	222.4	23,600
MW-3	10/29/2019	38,000		223.9	< 2.000	223.9	25,200
MW-3	9/18/2020	42,000	7.12	218.2	< 2.000	218.2	25,000
MW-3	8/23/2021	45,000	7.12	215.9	< 2.000	215.9	24,300
11111 0	0,20,202 I	10,000		2.0.0	- 2.000	_10.0	2-7,000

# GROUNDWATER SPECIFIC CONDUCTANCE, pH, ALKALINITY, AND TDS WILLIAMS PIT EDDY COUNTY, NEW MEXICO AP-22

All Values Presented in Parts Per Million (mg/L)

					Alkalinity (mg/L	)	
SAMPLE ID	DATE	Conductivity µmhos/c	pH	Bicarbonate (As CaCO3)	Carbonate (As CaCO3)	Total Alkalinity (as CaCO3)	TDS (mg/L)
MW-3	8/3/2022	41,000	7.17	224.2	< 2.000	224.2	22,100
MW-3	11/28/2023	36,000	7.05	215.5	< 2.000	215.5	21,300
MW-3	4/30/2024						22,000
MW-3	9/24/2024						20,000
MW-3	12/10/2024						17,000
		'		•	•		
MW-4	9/19/2002						14,700
MW-4	11/8/2004						10,800
MW-4	3/17/2012	15,000	7.27	260	< 2.0	260	8,870
MW-4	6/18/2012	14,000	7.14	260	< 2.0	260	9,310
MW-4	9/12/2012	16,000	7.07	270	< 2.0	270	9,430
MW-4	12/7/2012	13,000	6.94	250	< 2.0	250	8,410
MW-4	3/12/2013	12,000	7.34	250	< 2.0	250	8,300
MW-4	6/27/2013	12,000	7.11	250	< 2.0	250	8,200
MW-4	3/28/2018	18,000		243.8	< 2.000	243.8	10,600
MW-4	3/11/2019	16,000	7.12	231.9	< 2.000	231.9	9,620
MW-4	10/29/2019	16,000		230.6	< 2.000	230.6	9,340
MW-4	9/18/2020	15,000	7.20	225	< 2.000	225	9,000
MW-4	8/23/2021	17,000		217.9	< 2.000	217.9	9,290
MW-4	3/22/2022	16,000	7.58	216.8	< 2.000	216.8	9,230
MW-4	8/3/2022	17,000	7.28	219.8	< 2.000	219.8	9,460
MW-4	11/28/2023	15,000	7.16	232.2	< 2.000	232.2	8,560
MW-4	4/30/2024						8,800
MW-4	9/24/2024						8,000
MW-4	12/10/2024						7,400

20.6.2.3103 NMAC GW STANDARDS (<10,000 mg/L)

A. Human Health Standards

B. Other Standards for Domestic Water Supply
C. Standards for Irrigation Use

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1,000

Notes:

<sup>1.</sup> Exceedances of the listed closure criteria are highlighted in bold, red type.



PHOTOGRAPH NO. 1 – Former pit location with monitor well "MW-4" visible. The view is towards the northwest. (Approximate GPS: 32.720493, -104.335875)

Received by OCD: 3/27/2025 12:53:28 PM



PHOTOGRAPH NO. 2 – An additional view of the approximate former pit area and monitor wells "MW-1" and "MW-4". The view is towards the southeast.

(Approximate GPS: 32.720615, -104.336589)

ATTACHMENT 2 - LABORATORY ANALYTICAL REPORTS

**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Will Kierdorf Ranger Environmental Services, Inc 7215 McNeil Drive PO BOX 201179 Austin, Texas 78729

Generated 5/29/2024 4:58:35 PM

# **JOB DESCRIPTION**

WilliamsPit

# **JOB NUMBER**

885-3810-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 5/6/2025 1:16:39 PM

# **Eurofins Albuquerque**

# **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

# **Authorization**

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Authorized for release by Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com (505)345-3975

Page 2 of 30 5/29/2024

Client: Ranger Environmental Services, Inc Project/Site: WilliamsPit

Laboratory Job ID: 885-3810-1

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# **Definitions/Glossary**

Client: Ranger Environmental Services, Inc Job ID: 885-3810-1

Project/Site: WilliamsPit

#### **Qualifiers**

#### **HPLC/IC**

Qualifier **Qualifier Description** Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**Metals** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits.

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**General Chemistry** 

Qualifier **Qualifier Description** 

Е Result exceeded calibration range.

## **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NFG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Ranger Environmental Services, Inc

Project: WilliamsPit

Job ID: 885-3810-1

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Job ID: 885-3810-1

Job Narra

# **Eurofins Albuquerque**

#### Job Narrative 885-3810-1

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

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

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

#### Receipt

The samples were received on 5/2/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -3.7°C.

#### GC/MS VOA

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

#### HPLC/IC

Method 300\_OF\_28D\_PREC: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 885-4390 recovered outside control limits for the following analytes: Cl. Sample requiring Chloride analysis will be re-analyzed on a later run.

Method 300\_OF\_28D\_PREC: SO4 failure on bracketing CCB. Analytes requiring sulfate analysis will be re-run on a future batch.

MW-1 (885-3810-1), MW-2 (885-3810-2), MW-3 (885-3810-3), MW-4 (885-3810-4) and (CCB 885-4390/50)

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

#### Metals

Method 200.7 - Dissolved: The highlighted CCV failed low for Cr on the instrument at 89.62%. However, it passed in TALS due to the rounding system. Moreover, the analyst turned the Cr off (not reporting) as the analyst is going with the actual instrument value which indicates a failure on the CCV. System will be re-calibrated for Cr. (CCV 885-4447/42)

Method 200.7 - Total Recoverable: The following samples were diluted due to the nature of the sample matrix: MW-1 (885-3810-1), MW-2 (885-3810-2) and MW-4 (885-3810-4). Elevated reporting limits (RLs) are provided.

Method 200.7 - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: MW-3 (885-3810-3). Elevated reporting limits (RLs) are provided.

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

#### **General Chemistry**

Method 2540C\_SingleDry: The analysis volume selected for the following sample produced a base result greater than 200mg before calculation of the final result: MW-3 (885-3810-3). Visual inspection by the analyst identified no signs of trapped moisture in the beaker at its completed state. Based on this inspection, reanalysis was not performed. The reference method specifies that no more than 200mg of weight be recovered for a chosen sample analysis volume in order to produce the best data precision. As such, these data have been qualified.

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

**Eurofins Albuquerque** 

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Job ID: 885-3810-1

# **Client Sample Results**

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Client Sample ID: MW-1 Lab Sample ID: 885-3810-1

Date Collected: 04/30/24 13:39 Matrix: Water

Date Received: 05/02/24 07:55

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		1.0	ug/L			05/07/24 10:26	
Ethylbenzene	ND		1.0	ug/L			05/07/24 10:26	
Toluene	ND		1.0	ug/L			05/07/24 10:26	
Xylenes, Total	ND		1.5	ug/L			05/07/24 10:26	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	123		70 - 130				05/07/24 10:26	
4-Bromofluorobenzene (Surr)	109		70 - 130				05/07/24 10:26	
Dibromofluoromethane (Surr)	99		70 - 130				05/07/24 10:26	
Toluene-d8 (Surr)	86		70 - 130				05/07/24 10:26	
Method: EPA 300.0 - Anions, I	on Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	9500		500	mg/L			05/07/24 21:36	100
Sulfate	2000		500	mg/L			05/07/24 21:36	100
Method: EPA 200.7 Rev 4.4 - N	Metals (ICP) - Tota	l Recoverat	ole					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
ron	2.9		0.25	mg/L		05/08/24 08:44	05/09/24 10:10	
Manganese	0.040		0.010	mg/L		05/08/24 08:44	05/09/24 10:10	
Chromium	ND		0.030	mg/L		05/08/24 08:44	05/09/24 10:10	
Silver	ND		0.025	mg/L		05/08/24 08:44	05/09/24 10:10	
Method: EPA 200.7 Rev 4.4 - N	Metals (ICP) - Diss	olved						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
ron	ND		0.020	mg/L			05/06/24 08:56	
Manganese	ND		0.0020	mg/L			05/06/24 08:56	
Chromium	ND		0.0060	mg/L			05/06/24 16:25	
Silver	0.015		0.0050	mg/L			05/06/24 08:56	
Method: EPA 200.8 - Metals (I	CP/MS) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
-				ma/l		05/08/24 08:44	05/12/24 10:50	
	0.0047		0.00050	mg/L				
Arsenic	0.0047 0.022		0.00050 0.0050	mg/L		05/08/24 08:44	05/15/24 14:40	
Arsenic Selenium	0.022	ed		_		05/08/24 08:44	05/15/24 14:40	
Arsenic Selenium Method: EPA 200.8 - Metals (IG	0.022 CP/MS) - Dissolve	ed Qualifier		_	<u>D</u>	05/08/24 08:44  Prepared	05/15/24 14:40  Analyzed	
Arsenic Selenium Method: EPA 200.8 - Metals (IG Analyte	0.022 CP/MS) - Dissolve		0.0050	mg/L	<u>D</u>			
Arsenic Selenium Method: EPA 200.8 - Metals (I Analyte Selenium	0.022 CP/MS) - Dissolve Result		0.0050 <b>RL</b>	mg/L Unit	<u>D</u>		Analyzed	
Arsenic Selenium Method: EPA 200.8 - Metals (IO Analyte Selenium Arsenic	0.022 CP/MS) - Dissolve Result 0.018		0.0050  RL 0.0010	mg/L  Unit mg/L	<u>D</u>		Analyzed 05/21/24 11:59	
Arsenic Selenium  Method: EPA 200.8 - Metals (Id Analyte Selenium Arsenic  General Chemistry Analyte	0.022 CP/MS) - Dissolve Result 0.018	Qualifier	0.0050  RL 0.0010	mg/L  Unit mg/L	<u>D</u>		Analyzed 05/21/24 11:59	Dil Fa

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Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

Client Sample ID: MW-2	Lab Sample ID: 885-3810-2
Date Collected: 04/30/24 14:18	Matrix: Water

Date Received: 05/02/24 07:55

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.2		1.0	ug/L			05/07/24 11:52	1
Ethylbenzene	ND		1.0	ug/L			05/07/24 11:52	1
Toluene	ND		1.0	ug/L			05/07/24 11:52	1
Xylenes, Total	ND		1.5	ug/L			05/07/24 11:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130				05/07/24 11:52	1
l-Bromofluorobenzene (Surr)	111		70 - 130				05/07/24 11:52	
Dibromofluoromethane (Surr)	99		70 - 130				05/07/24 11:52	
Toluene-d8 (Surr)	84		70 - 130				05/07/24 11:52	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	4800		250	mg/L			05/07/24 21:49	500
Sulfate	1900		250	mg/L			05/07/24 21:49	500
Method: EPA 200.7 Rev 4.4 - Meta	ıls (ICP) - Tota	l Recoveral	ole					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
ron	2.3		0.50	mg/L		05/08/24 08:44	05/09/24 11:03	1
Manganese	0.76		0.020	mg/L		05/08/24 08:44	05/09/24 11:03	10
Chromium	ND		0.060	mg/L		05/08/24 08:44	05/09/24 11:03	10
Silver	ND		0.050	mg/L		05/08/24 08:44	05/09/24 11:03	10
Method: EPA 200.7 Rev 4.4 - Meta	ıls (ICP) - Diss	olved						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
ron	0.023		0.020	mg/L			05/06/24 08:59	
Manganese	0.27		0.0020	mg/L			05/06/24 08:59	•
Chromium	ND		0.0060	mg/L			05/06/24 16:27	
Silver	0.0085		0.0050	mg/L			05/06/24 08:59	
Method: EPA 200.8 - Metals (ICP/	VIS) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	0.0033		0.0025	mg/L		05/08/24 08:44	05/15/24 15:33	
Selenium	0.019		0.0050	mg/L		05/08/24 08:44	05/15/24 15:33	;
Method: EPA 200.8 - Metals (ICP/	MS) - Dissolve	d						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Selenium	0.017		0.0010	mg/L	_		05/21/24 12:06	•
Arsenic	0.011		0.00050	mg/L			05/21/24 12:06	
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Date Received: 05/02/24 07:55

Lab Sample ID: 885-3810-3

**Client Sample ID: MW-3** Date Collected: 04/30/24 14:55

Matrix: Water

Job ID: 885-3810-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		1.0	ug/L			05/07/24 12:21	
Ethylbenzene	ND		1.0	ug/L			05/07/24 12:21	
Toluene	ND		1.0	ug/L			05/07/24 12:21	
Xylenes, Total	ND		1.5	ug/L			05/07/24 12:21	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	121		70 - 130				05/07/24 12:21	
4-Bromofluorobenzene (Surr)	111		70 - 130				05/07/24 12:21	
Dibromofluoromethane (Surr)	99		70 - 130				05/07/24 12:21	
Toluene-d8 (Surr)	83		70 - 130				05/07/24 12:21	
Method: EPA 300.0 - Anions, Id	• •	•						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	9500		500	mg/L			05/07/24 22:02	100
Sulfate	1900		500	mg/L			05/07/24 22:02	100
Method: EPA 200.7 Rev 4.4 - M								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Iron	ND		0.50	mg/L		05/08/24 08:44	05/09/24 11:10	1
Manganese	ND		0.020	mg/L		05/08/24 08:44	05/09/24 11:10	1
Chromium	ND		0.060	mg/L		05/08/24 08:44	05/09/24 11:10	
Silver	ND		0.050	mg/L		05/08/24 08:44	05/09/24 11:10	1
Method: EPA 200.7 Rev 4.4 - M	• •							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Iron	ND		0.020	mg/L			05/06/24 09:02	
Manganese	ND		0.0020	mg/L			05/06/24 09:02	
Chromium	ND		0.0060	mg/L			05/06/24 16:29	
Silver	0.014		0.0050	mg/L			05/06/24 09:02	
Method: EPA 200.8 - Metals (IC								
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Arsenic	0.0039		0.0025	mg/L		05/08/24 08:44	05/15/24 17:08	
Selenium	0.023		0.0050	mg/L		05/08/24 08:44	05/15/24 17:08	
Method: EPA 200.8 - Metals (IC	•							
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Selenium	0.016		0.0010	mg/L			05/28/24 13:51	
Arsenic	0.0016		0.00050	mg/L			05/28/24 13:51	
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

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05/06/24 10:19

500

mg/L

22000 E

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Total Dissolved Solids (SM 2540C)

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Lab Sample ID: 885-3810-4

Job ID: 885-3810-1

Matrix: Water

Client Sample ID: MW-4
Date Collected: 04/30/24 15:42

Date Received: 05/02/24 07:55

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			05/07/24 12:49	1
Ethylbenzene	ND		1.0	ug/L			05/07/24 12:49	1
Toluene	ND		1.0	ug/L			05/07/24 12:49	1
Xylenes, Total	ND		1.5	ug/L			05/07/24 12:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		70 - 130				05/07/24 12:49	
4-Bromofluorobenzene (Surr)	111		70 - 130				05/07/24 12:49	
Dibromofluoromethane (Surr)	97		70 - 130				05/07/24 12:49	
Toluene-d8 (Surr)	84		70 - 130				05/07/24 12:49	
Method: EPA 300.0 - Anions, I	on Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	2800		100	mg/L			05/07/24 22:14	200
Sulfate	2000		100	mg/L			05/07/24 22:14	200
Method: EPA 200.7 Rev 4.4 - N	letals (ICP) - Tota	l Recovera	ble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Iron	0.55		0.25	mg/L		05/08/24 08:44	05/09/24 11:08	
Manganese	0.27		0.010	mg/L		05/08/24 08:44	05/09/24 11:08	
Chromium	ND		0.030	mg/L		05/08/24 08:44	05/09/24 11:08	
Silver	ND		0.025	mg/L		05/08/24 08:44	05/09/24 11:08	
Method: EPA 200.7 Rev 4.4 - N	letals (ICP) - Diss	olved						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Iron	ND		0.020	mg/L			05/06/24 09:05	
Manganese	0.050		0.0020	mg/L			05/06/24 09:05	
Chromium	ND	F1	0.0060	mg/L			05/06/24 16:31	
Silver	0.0075		0.0050	mg/L			05/06/24 09:05	
Method: EPA 200.8 - Metals (IC	CP/MS) - Total Re	coverable						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Arsenic	0.0030		0.0025	mg/L		05/08/24 08:44	05/15/24 17:15	
Selenium	0.025		0.0050	mg/L		05/08/24 08:44	05/15/24 17:15	5
Method: EPA 200.8 - Metals (IC	CP/MS) - Dissolve	d						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Selenium	0.017		0.0050	mg/L			05/26/24 10:28	
Arsenic	ND		0.0025	mg/L			05/26/24 10:28	
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

05/06/24 10:19

500

mg/L

8800

Total Dissolved Solids (SM 2540C)

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

Client Sample ID: Trip Blank

Lab Sample ID: 885-3810-5

Lab dampic ib: 000-0010-0

Date Collected: 04/30/24 00:00 Matrix: Water
Date Received: 05/02/24 07:55

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			05/07/24 13:18	1
Ethylbenzene	ND		1.0	ug/L			05/07/24 13:18	1
Toluene	ND		1.0	ug/L			05/07/24 13:18	1
Xylenes, Total	ND		1.5	ug/L			05/07/24 13:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			70 - 130		-		05/07/24 13:18	1
4-Bromofluorobenzene (Surr)	109		70 - 130				05/07/24 13:18	1
Dibromofluoromethane (Surr)	98		70 - 130				05/07/24 13:18	1
Toluene-d8 (Surr)	84		70 - 130				05/07/24 13:18	1

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10

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

Prep Type: Total/NA

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

# Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-4552/3 Client Sample ID: Method Blank **Matrix: Water** 

Analysis Batch: 4552

MB MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene ND 1.0 ug/L 05/07/24 09:29 Ethylbenzene ND 1.0 ug/L 05/07/24 09:29 ug/L Toluene ND 05/07/24 09:29 1.0 05/07/24 09:29 Xylenes, Total ND 1.5 ug/L

MB MB Qualifier %Recovery Limits Prepared Dil Fac Surrogate Analyzed 1,2-Dichloroethane-d4 (Surr) 119 70 - 130 05/07/24 09:29 4-Bromofluorobenzene (Surr) 109 70 - 130 05/07/24 09:29 05/07/24 09:29 Dibromofluoromethane (Surr) 97 70 - 130 85 70 - 130 05/07/24 09:29 Toluene-d8 (Surr)

Lab Sample ID: LCS 885-4552/2

**Matrix: Water** 

**Analysis Batch: 4552** 

١		Spike	LCS	LCS				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	 20.1	22.0		ug/L		110	70 - 130	
	Toluene	20.2	17.9		ug/L		89	70 - 130	

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 119 70 - 130 4-Bromofluorobenzene (Surr) 113 70 - 130 Dibromofluoromethane (Surr) 97 70 - 130 Toluene-d8 (Surr) 86 70 - 130

Lab Sample ID: 885-3810-1 MS Client Sample ID: MW-1 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 4552** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	ND		20.1	21.9		ug/L		109	70 - 130	
Toluene	ND		20.2	17.2		ua/L		85	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	120		70 - 130
4-Bromofluorobenzene (Surr)	111		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	85		70 - 130

Lab Sample ID: 885-3810-1 MSD

Analysis Batch: 4552

**Matrix: Water** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		20.1	21.9		ug/L		109	70 - 130	0	20
Toluene	ND		20.2	17.6		ug/L		87	70 - 130	2	20

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Client Sample ID: MW-1

Limits

70 - 130

70 - 130

70 - 130

70 - 130

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

85

Lab Sample ID: 885-3810-1 MSD

**Matrix: Water** 

**Analysis Batch: 4552** 

Client Sample ID: MW-1 Prep Type: Total/NA

MSD MSD %Recovery Qualifier Surrogate 1,2-Dichloroethane-d4 (Surr) 118 4-Bromofluorobenzene (Surr) 112 98 Dibromofluoromethane (Surr)

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-4390/4

**Matrix: Water** 

Toluene-d8 (Surr)

Analysis Batch: 4390

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

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Type: Total/NA

мв мв

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Chloride ND 0.50 05/03/24 10:39 mg/L Sulfate ND 0.50 05/03/24 10:39 mg/L

Lab Sample ID: LCS 885-4390/5

**Matrix: Water** 

**Analysis Batch: 4390** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	5.00	4.55		mg/L		91	90 - 110	
Sulfate	10.0	9.35		mg/L		93	90 - 110	

Lab Sample ID: MRL 885-4390/3

**Matrix: Water** 

Analysis Batch: 4390

7 many one Dattorn 1000								
	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	0.500	0.521		mg/L		104	50 - 150	 
Sulfate	0.500	0.534		mg/L		107	50 - 150	

Lab Sample ID: MB 885-4496/1-A

**Matrix: Water** 

Analysis Batch: 4540

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 4496

мв мв Dil Fac Analyte Result Qualifier RLUnit D Prepared Analyzed Chloride ND 1.5 mg/L 05/07/24 12:04 05/07/24 12:53 Sulfate ND 1.5 mg/L 05/07/24 12:04 05/07/24 12:53

Lab Sample ID: LCS 885-4496/2-A

**Matrix: Water** 

**Analysis Batch: 4540** 

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

Prep Batch: 4496

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 	15.0	14.0		mg/L		93	90 - 110	=

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-4540/18

**Matrix: Water** 

Analysis Batch: 4540

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID IVID						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND ND	0.50	mg/L			05/07/24 09:41	1
Sulfate	ND	0.50	mg/L			05/07/24 09:41	1

Lab Sample ID: LCS 885-4540/19

**Matrix: Water** 

**Analysis Batch: 4540** 

<b>Client Sample ID: Lab Cont</b>	rol Sample
Prep Typ	e: Total/NA

A 1.4	
Analyte Added Result Qualifier Unit D %Rec Limits	
Chloride 5.00 4.71 mg/L 94 90 - 110	
Sulfate 10.0 9.55 mg/L 95 90 - 110	

Lab Sample ID: MRL 885-4540/17

**Matrix: Water** 

**Analysis Batch: 4540** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Analyte Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride 0.500	0.520		mg/L		104	50 - 150
Sulfate 0.500	0.491	J	mg/L		98	50 - 150

#### Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-4392/17

**Matrix: Water** 

Analysis Batch: 4392

Client S	ample	ID: M	ethod	ВІ	an	k
	_					-

Prep Type: Total/NA

MB MB Analyte Qualifier Unit Dil Fac Result RL D Prepared Analyzed 0.020 mg/L 05/06/24 08:22 Iron ND Manganese ND 0.0020 mg/L 05/06/24 08:22 ND 0.0060 05/06/24 08:22 Chromium mg/L Silver ND 0.0050 mg/L 05/06/24 08:22

Lab Sample ID: LCS 885-4392/19

**Matrix: Water** 

**Analysis Batch: 4392** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.500	0.518		mg/L		104	85 - 115	 
Manganese	0.500	0.470		mg/L		94	85 - 115	
Chromium	0.500	0.439		mg/L		88	85 - 115	
Silver	0.500	0.503		ma/l		101	85 - 115	

Lab Sample ID: LLCS 885-4392/18

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**Matrix: Water** 

**Analysis Batch: 4392** 

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

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.0200	0.0230		mg/L		115	50 - 150	
Manganese	0.00200	0.00184	J	mg/L		92	50 - 150	
Chromium	0.00600	0.00666		mg/L		111	50 - 150	
Silver	0.00500	0.00452	J	mg/L		90	50 - 150	

Dil Fac

Client: Ranger Environmental Services, Inc Project/Site: WilliamsPit

Analysis Batch: 4392

Job ID: 885-3810-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MRL 885-4392/14

**Matrix: Water** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

05/06/24 14:21

Prep Type: Total/NA

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.0200	0.0207	J	mg/L		103	50 - 150	
Manganese	0.00200	0.00192	J	mg/L		96	50 - 150	
Chromium	0.00600	0.00641		mg/L		107	50 - 150	
Silver	0.00500	0.00514		mg/L		103	50 - 150	

Lab Sample ID: MB 885-4447/17 Client Sample ID: Method Blank

**Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 4447** 

MR MR Qualifier RL Unit Analyte Result D Prepared Analyzed ND 0.020 mg/L 05/06/24 14:21 Iron Manganese ND 0.0020 mg/L 05/06/24 14:21

ND

ND 0.0050 05/06/24 14:21 Silver mg/L Lab Sample ID: LCS 885-4447/19 Client Sample ID: Lab Control Sample

0.0060

mg/L

**Analysis Batch: 4447** 

Chromium

**Matrix: Water** 

Spike LCS LCS %Rec Added %Rec Result Qualifier Limits Analyte Unit D Iron 0.500 0.505 mg/L 101 85 - 115 0.500 0.501 Manganese mg/L 100 85 - 115 Chromium 0.500 0.499 mg/L 100 85 - 115 Silver 0.500 0.494 85 - 115 mg/L 99

Lab Sample ID: LLCS 885-4447/18 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 4447** 

Spike LLCS LLCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Iron 0.0200 0.0223 111 50 - 150 mg/L Manganese 0.00200 0.00196 mg/L 98 50 - 150 0.00600 50 - 150 0.00634 mg/L 106 Chromium Silver 0.00500 0.00499 J mg/L 100 50 - 150

Lab Sample ID: MRL 885-4447/14 Client Sample ID: Lab Control Sample

**Matrix: Water Analysis Batch: 4447** 

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.0200 0.0212 J 106 50 - 150 Iron mg/L 0.00200 0.00211 Manganese mg/L 106 50 - 150 Chromium 0.00600 0.00636 mg/L 106 50 - 150 Silver 0.00500 0.00488 J 98 50 - 150 mg/L

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Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample** 

# Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 885-4454/20

**Matrix: Water** 

Analysis Batch: 4454

мв мв

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Chromium ND 0.0060 mg/L 05/06/24 16:20

Lab Sample ID: LCS 885-4454/22

**Matrix: Water** 

**Analysis Batch: 4454** 

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chromium 0.500 0.492 mg/L 98 85 - 115

Lab Sample ID: LLCS 885-4454/21 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 4454

LLCS LLCS %Rec Spike Analyte Added Result Qualifier Unit Limits Chromium 0.00600 0.00638 mg/L 106 50 - 150

Lab Sample ID: MRL 885-4454/17

**Matrix: Water** 

Analysis Batch: 4454

MRL MRL Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.00600 Chromium 0.00710 118 50 - 150 mg/L

Lab Sample ID: MRL 885-4684/14

**Matrix: Water** 

Analysis Batch: 4684

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.0200	0.0185	J	mg/L		93	50 - 150	
Manganese	0.00200	0.00190	J	mg/L		95	50 - 150	
Chromium	0.00600	0.00545	J	mg/L		91	50 - 150	
Silver	0.00500	0.00464	J	mg/L		93	50 - 150	

Lab Sample ID: MB 885-4537/1-A

**Matrix: Water** 

Analysis Batch: 4684

Client Sample ID: Method Blank **Prep Type: Total Recoverable** Prep Batch: 4537

	IVID	IAID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	mg/L		05/08/24 08:44	05/09/24 08:50	1
Manganese	ND		0.0020	mg/L		05/08/24 08:44	05/09/24 08:50	1
Chromium	ND		0.0060	mg/L		05/08/24 08:44	05/09/24 08:50	1
Silver	ND		0.0050	mg/L		05/08/24 08:44	05/09/24 08:50	1

Lab Sample ID: LCS 885-4537/3-A

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**Matrix: Water** 

**Analysis Batch: 4684** 

Client Sample ID: Lab Control Sample **Prep Type: Total Recoverable** Prep Batch: 4537

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.500	0.467		mg/L		93	85 - 115	
Manganese	0.500	0.463		mg/L		93	85 - 115	

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# QC Sample Results

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Silver

Job ID: 885-3810-1

# Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 885-4537/3-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 4684 Prep Batch: 4537

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits D 0.500 0.461 92 Chromium mg/L 85 \_ 115

0.0927

mg/L

mg/L

93

87

70 - 130

85 - 115

0.100

Lab Sample ID: LLCS 885-4537/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Prep Batch: 4537 **Analysis Batch: 4684** 

LLCS LLCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.0193 Iron 0.0200 mg/L 96 50 - 150 0.00200 0.00192 J 96 Manganese mg/L 50 - 150 Chromium 0.00600 0.00448 mg/L 75 50 - 150 Silver 0.00500 0.00457 J mg/L 91 50 - 150

Lab Sample ID: 885-3810-4 MS Client Sample ID: MW-4 **Matrix: Water Prep Type: Dissolved** Analysis Batch: 4454

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier %Rec Analyte Unit D Limits

0.500

F1

ND

Lab Sample ID: 885-3810-4 MSD Client Sample ID: MW-4 **Matrix: Water** 

0.433

**Analysis Batch: 4454** 

Chromium

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Chromium ND F1 0.500 0.409 mg/L 82 70 - 130 20

#### Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MRL 885-4817/10 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 4817** 

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits Selenium 0.00100 0.000908 91 50 - 150 mg/L

Lab Sample ID: MRL 885-4817/11 Client Sample ID: Lab Control Sample **Matrix: Water** 

**Analysis Batch: 4817** 

MRL MRL Spike %Rec Analyte Added Qualifier Result Unit %Rec Limits Arsenic 0.000500 0.000529 mg/L 106 50 - 150

Lab Sample ID: MRL 885-5081/10 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 5081** 

MRL MRL Spike %Rec Added Analyte Result Qualifier Unit %Rec Limits 0.00100 0.000940 50 - 150 Selenium mg/L

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**Prep Type: Dissolved** 

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

**Client Sample ID: Lab Control Sample** 

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-5081/11

Analysis Batch: 5081

**Matrix: Water** 

MRL MRL %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Arsenic 0.000500 0.000568 mg/L 114 50 - 150

Lab Sample ID: MB 885-5373/12

**Matrix: Water** 

**Analysis Batch: 5373** 

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Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Selenium ND 0.0010 mg/L 05/21/24 11:45

Lab Sample ID: LCS 885-5373/13

**Matrix: Water** 

**Analysis Batch: 5373** 

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits 0.0250 Selenium 0.0261 mg/L 104 85 - 115 0.0250 0.0254 85 - 115 102 Arsenic mg/L

Lab Sample ID: MRL 885-5373/10

**Matrix: Water** 

**Analysis Batch: 5373** 

Spike MRL MRL %Rec Added Analyte Result Qualifier Unit D %Rec Limits 0.00100 Selenium 0.000894 mg/L 89 50 - 150

Lab Sample ID: MRL 885-5373/11

**Matrix: Water** 

**Analysis Batch: 5373** 

MRL MRL Spike %Rec Result Qualifier Analyte Added Unit D %Rec Limits Selenium 0.000500 0.000631 J 126 50 - 150 mg/L 0.000500 0.000447 .J 89 50 - 150 Arsenic mg/L

Lab Sample ID: MB 885-5671/75

**Matrix: Water** 

**Analysis Batch: 5671** 

MB MB Result

Qualifier RLUnit Analyte D Prepared Analyzed 0.0010 Selenium 05/26/24 10:06 ND mg/L 0.00050 05/26/24 10:06 Arsenic ND mg/L

Lab Sample ID: LCS 885-5671/76

Released to Imaging: 5/6/2025 1:16:39 PM

**Matrix: Water** 

**Analysis Batch: 5671** 

-	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	0.0250	0.0246		mg/L		98	85 - 115	
Arsenic	0.0250	0.0245		mg/L		98	85 - 115	

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

Job ID: 885-3810-1

Client: Ranger Environmental Services, Inc Project/Site: WilliamsPit

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 885-5671/77 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 5671

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Selenium 0.0250 0.0260 mg/L 104 85 - 115 5 20 Arsenic 0.0250 0.0246 mg/L 98 85 - 115 20

Lab Sample ID: MRL 885-5671/73 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 5671** 

MRL MRL Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Selenium 0.00100 0.00130 130 50 - 150 mg/L

Lab Sample ID: MRL 885-5671/74 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 5671** 

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.000500 0.000470 J mg/L Arsenic 94 50 - 150

Lab Sample ID: MB 885-5764/43 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 5764** 

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0010	mg/L			05/28/24 13:37	1
Arsenic	ND		0.00050	mg/L			05/28/24 13:37	1

Lab Sample ID: LCS 885-5764/44 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 5764** 

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Selenium	0.0250	0.0228		mg/L		91	85 - 115		
Arsenic	0.0250	0.0242		mg/L		97	85 - 115		

Lab Sample ID: MRL 885-5764/40 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 5764** 

	Spike	MRL	MRL				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Selenium	0.00100	0.000967	J	mg/L		97	50 - 150		_

Lab Sample ID: MRL 885-5764/41 **Client Sample ID: Lab Control Sample Matrix: Water** 

**Analysis Batch: 5764** 

Released to Imaging: 5/6/2025 1:16:39 PM

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.000500	0.000425	J	mg/L		85	50 - 150	

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Client: Ranger Environmental Services, Inc

Job ID: 885-3810-1

Project/Site: WilliamsPit

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 885-4537/1-A **Matrix: Water** 

Analysis Batch: 4660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 4537

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.0010	mg/L		05/08/24 08:44	05/08/24 13:58	1
Arsenic	ND		0.00050	mg/L		05/08/24 08:44	05/08/24 13:58	1

Lab Sample ID: LCS 885-4537/6-A

**Matrix: Water** 

Analysis Batch: 4660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable

Prep Batch: 4537

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	0.0250	0.0259		mg/L		103	85 - 115	
Arsenic	0.0250	0.0244		mg/L		98	85 - 115	

Lab Sample ID: LLCS 885-4537/4-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

**Analysis Batch: 4660** 

**Prep Type: Total Recoverable** 

Prep Batch: 4537

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	0.00100	0.00113		mg/L		113	50 - 150	

Lab Sample ID: LLCS 885-4537/5-A **Client Sample ID: Lab Control Sample Matrix: Water** 

Analysis Batch: 4660

**Prep Type: Total Recoverable** 

Prep Batch: 4537

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.000500	0.000411	J	mg/L		82	50 - 150	

Lab Sample ID: 885-3810-1 MS

**Matrix: Water** 

Analysis Batch: 5081

Client Sample ID: MW-1 **Prep Type: Total Recoverable** 

Prep Batch: 4537

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	0.022		0.0250	0.0454		mg/L		94	70 - 130	_

Lab Sample ID: 885-3810-1 MSD

**Matrix: Water** 

**Analysis Batch: 5081** 

Client Sample	ID:	MW-1

**Prep Type: Total Recoverable** Prep Batch: 4537

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Selenium	0.022		0.0250	0.0465		mg/L		98	70 - 130	2	20	

Lab Sample ID: 885-3810-1 MS

**Matrix: Water** 

Client Sample ID: MW-1 **Prep Type: Dissolved** 

**Analysis Batch: 5373** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	0.018		0.0250	0.0389		mg/L		83	70 - 130	

# QC Sample Results

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

%Rec

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 885-3810-1 MSD

**Matrix: Water** 

**Analysis Batch: 5373** 

Client Sample ID: MW-1 **Prep Type: Dissolved** 

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Selenium 0.018 0.0250 0.0384 mg/L 81 70 - 130 20

Method: 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 885-4400/1 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 4400** 

MB MB Result Qualifier Dil Fac RL Unit D Prepared Analyzed 50 05/06/24 10:19 **Total Dissolved Solids** ND mg/L

Lab Sample ID: LCS 885-4400/2 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 4400** LCS LCS Spike

Analyte Added Result Qualifier Unit %Rec Limits Total Dissolved Solids 1000 1010 mg/L 101 80 - 120

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

## **GC/MS VOA**

## Analysis Batch: 4552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total/NA	Water	8260B	
885-3810-2	MW-2	Total/NA	Water	8260B	
885-3810-3	MW-3	Total/NA	Water	8260B	
885-3810-4	MW-4	Total/NA	Water	8260B	
885-3810-5	Trip Blank	Total/NA	Water	8260B	
MB 885-4552/3	Method Blank	Total/NA	Water	8260B	
LCS 885-4552/2	Lab Control Sample	Total/NA	Water	8260B	
885-3810-1 MS	MW-1	Total/NA	Water	8260B	
885-3810-1 MSD	MW-1	Total/NA	Water	8260B	
<u> </u>					

## HPLC/IC

#### Analysis Batch: 4390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4390/4	Method Blank	Total/NA	Water	300.0	
LCS 885-4390/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-4390/3	Lab Control Sample	Total/NA	Water	300.0	

# Prep Batch: 4496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4496/1-A	Method Blank	Total/NA	Water	300_Prep	
LCS 885-4496/2-A	Lab Control Sample	Total/NA	Water	300_Prep	

## Analysis Batch: 4540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total/NA	Water	300.0	
885-3810-2	MW-2	Total/NA	Water	300.0	
885-3810-3	MW-3	Total/NA	Water	300.0	
885-3810-4	MW-4	Total/NA	Water	300.0	
MB 885-4496/1-A	Method Blank	Total/NA	Water	300.0	4496
MB 885-4540/18	Method Blank	Total/NA	Water	300.0	
LCS 885-4496/2-A	Lab Control Sample	Total/NA	Water	300.0	4496
LCS 885-4540/19	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-4540/17	Lab Control Sample	Total/NA	Water	300.0	

#### **Metals**

## Analysis Batch: 4392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Dissolved	Water	200.7 Rev 4.4	
885-3810-2	MW-2	Dissolved	Water	200.7 Rev 4.4	
885-3810-3	MW-3	Dissolved	Water	200.7 Rev 4.4	
885-3810-4	MW-4	Dissolved	Water	200.7 Rev 4.4	
MB 885-4392/17	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-4392/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-4392/18	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-4392/14	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

# Analysis Batch: 4447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4447/17	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-4447/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

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Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

# **Metals (Continued)**

# **Analysis Batch: 4447 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 885-4447/18	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-4447/14	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

#### Analysis Batch: 4454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Dissolved	Water	200.7 Rev 4.4	
885-3810-2	MW-2	Dissolved	Water	200.7 Rev 4.4	
885-3810-3	MW-3	Dissolved	Water	200.7 Rev 4.4	
885-3810-4	MW-4	Dissolved	Water	200.7 Rev 4.4	
MB 885-4454/20	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-4454/22	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-4454/21	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-4454/17	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-3810-4 MS	MW-4	Dissolved	Water	200.7 Rev 4.4	
885-3810-4 MSD	MW-4	Dissolved	Water	200.7 Rev 4.4	

#### Prep Batch: 4537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total Recoverable	Water	200.2	<u> </u>
885-3810-2	MW-2	Total Recoverable	Water	200.2	
885-3810-3	MW-3	Total Recoverable	Water	200.2	
885-3810-4	MW-4	Total Recoverable	Water	200.2	
MB 885-4537/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 885-4537/3-A	Lab Control Sample	Total Recoverable	Water	200.2	
LCS 885-4537/6-A	Lab Control Sample	Total Recoverable	Water	200.2	
LLCS 885-4537/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
LLCS 885-4537/4-A	Lab Control Sample	Total Recoverable	Water	200.2	
LLCS 885-4537/5-A	Lab Control Sample	Total Recoverable	Water	200.2	
885-3810-1 MS	MW-1	Total Recoverable	Water	200.2	
885-3810-1 MSD	MW-1	Total Recoverable	Water	200.2	

#### Analysis Batch: 4660

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4537/1-A	Method Blank	Total Recoverable	Water	200.8	4537
LCS 885-4537/6-A	Lab Control Sample	Total Recoverable	Water	200.8	4537
LLCS 885-4537/4-A	Lab Control Sample	Total Recoverable	Water	200.8	4537
LLCS 885-4537/5-A	Lab Control Sample	Total Recoverable	Water	200.8	4537

#### Analysis Batch: 4684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total Recoverable	Water	200.7 Rev 4.4	4537
885-3810-2	MW-2	Total Recoverable	Water	200.7 Rev 4.4	4537
885-3810-3	MW-3	Total Recoverable	Water	200.7 Rev 4.4	4537
885-3810-4	MW-4	Total Recoverable	Water	200.7 Rev 4.4	4537
MB 885-4537/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	4537
LCS 885-4537/3-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	4537
LLCS 885-4537/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	4537
MRL 885-4684/14	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

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Analysis Rate

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

#### **Metals**

# Analysis Batch: 4817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total Recoverable	Water	200.8	4537
MRL 885-4817/10	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-4817/11	Lab Control Sample	Total/NA	Water	200.8	

## **Analysis Batch: 5081**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Total Recoverable	Water	200.8	4537
885-3810-2	MW-2	Total Recoverable	Water	200.8	4537
885-3810-3	MW-3	Total Recoverable	Water	200.8	4537
885-3810-4	MW-4	Total Recoverable	Water	200.8	4537
MRL 885-5081/10	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5081/11	Lab Control Sample	Total/NA	Water	200.8	
885-3810-1 MS	MW-1	Total Recoverable	Water	200.8	4537
885-3810-1 MSD	MW-1	Total Recoverable	Water	200.8	4537

## **Analysis Batch: 5373**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-1	MW-1	Dissolved	Water	200.8	
885-3810-2	MW-2	Dissolved	Water	200.8	
MB 885-5373/12	Method Blank	Total/NA	Water	200.8	
LCS 885-5373/13	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5373/10	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5373/11	Lab Control Sample	Total/NA	Water	200.8	
885-3810-1 MS	MW-1	Dissolved	Water	200.8	
885-3810-1 MSD	MW-1	Dissolved	Water	200.8	

# Analysis Batch: 5671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-4	MW-4	Dissolved	Water	200.8	
MB 885-5671/75	Method Blank	Total/NA	Water	200.8	
LCS 885-5671/76	Lab Control Sample	Total/NA	Water	200.8	
LCSD 885-5671/77	Lab Control Sample Dup	Total/NA	Water	200.8	
MRL 885-5671/73	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5671/74	Lab Control Sample	Total/NA	Water	200.8	

## Analysis Batch: 5764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
885-3810-1	MW-1	Dissolved	Water	200.8	
885-3810-3	MW-3	Dissolved	Water	200.8	
MB 885-5764/43	Method Blank	Total/NA	Water	200.8	
LCS 885-5764/44	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5764/40	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-5764/41	Lab Control Sample	Total/NA	Water	200.8	

# **General Chemistry**

## Analysis Batch: 4400

Lab Sample ID 885-3810-1	Client Sample ID  MW-1	Prep Type Total/NA	Matrix Water	Method 2540C	Prep Batch
885-3810-2	MW-2	Total/NA	Water	2540C	
885-3810-3	MW-3	Total/NA	Water	2540C	

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Job ID: 885-3810-1

# **General Chemistry (Continued)**

# **Analysis Batch: 4400 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3810-4	MW-4	Total/NA	Water	2540C	
MB 885-4400/1	Method Blank	Total/NA	Water	2540C	
LCS 885-4400/2	Lab Control Sample	Total/NA	Water	2540C	

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#### Lab Chronicle

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

Lab Sample ID: 885-3810-1

Job ID: 885-3810-1

Client Sample ID: MW-1 Date Collected: 04/30/24 13:39 Date Received: 05/02/24 07:55

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed 8260B 05/07/24 10:26 Total/NA 4552 JR EET ALB Analysis Total/NA Analysis 300.0 1000 4540 SS **EET ALB** 05/07/24 21:36 Dissolved 200.7 Rev 4.4 VΡ 05/06/24 08:56 Analysis 1 4392 **EET ALB** 200.7 Rev 4.4 Dissolved Analysis 1 4454 VP **EET ALB** 05/06/24 16:25 200.2 Total Recoverable Prep 4537 TM **EET ALB** 05/08/24 08:44 Total Recoverable 200.7 Rev 4.4 5 **EET ALB** 05/09/24 10:10 Analysis 4684 05/21/24 11:59 Dissolved 200.8 **EET ALB** Analysis 1 5373 BV Dissolved Analysis 200.8 5764 ES **EET ALB** 05/28/24 13:48 200.2 **EET ALB** 05/08/24 08:44 Total Recoverable Prep TM 4537 200.8 **EET ALB** Total Recoverable Analysis 4817 BV 05/12/24 10:50 1 Total Recoverable **EET ALB** Prep 200.2 4537 TM 05/08/24 08:44 Total Recoverable Analysis 200.8 5 5081 BV **EET ALB** 05/15/24 14:40 Total/NA 05/06/24 10:19 Analysis 2540C 1 4400 KB **EET ALB** 

Client Sample ID: MW-2

Date Collected: 04/30/24 14:18 Date Received: 05/02/24 07:55

Lab Sample ID: 885-3810-2

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	4552	JR	EET ALB	05/07/24 11:52
Total/NA	Analysis	300.0		500	4540	SS	EET ALB	05/07/24 21:49
Dissolved	Analysis	200.7 Rev 4.4		1	4392	VP	EET ALB	05/06/24 08:59
Dissolved	Analysis	200.7 Rev 4.4		1	4454	VP	EET ALB	05/06/24 16:27
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.7 Rev 4.4		10	4684	JR	EET ALB	05/09/24 11:03
Dissolved	Analysis	200.8		1	5373	BV	EET ALB	05/21/24 12:06
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.8		5	5081	BV	EET ALB	05/15/24 15:33
Total/NA	Analysis	2540C		1	4400	KB	EET ALB	05/06/24 10:19

Client Sample ID: MW-3

Date Collected: 04/30/24 14:55 Date Received: 05/02/24 07:55

Lab Sample ID: 885-3810-3

**Matrix: Water** 

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	4552	JR	EET ALB	05/07/24 12:21
Total/NA	Analysis	300.0		1000	4540	SS	EET ALB	05/07/24 22:02
Dissolved	Analysis	200.7 Rev 4.4		1	4392	VP	EET ALB	05/06/24 09:02
Dissolved	Analysis	200.7 Rev 4.4		1	4454	VP	EET ALB	05/06/24 16:29
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.7 Rev 4.4		10	4684	JR	EET ALB	05/09/24 11:10
Dissolved	Analysis	200.8		1	5764	ES	EET ALB	05/28/24 13:51

#### **Lab Chronicle**

Client: Ranger Environmental Services, Inc

Project/Site: WilliamsPit

**Client Sample ID: MW-3** 

Lab Sample ID: 885-3810-3

Job ID: 885-3810-1

Matrix: Water

Date Collected: 04/30/24 14:55 Date Received: 05/02/24 07:55

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.8		5	5081	BV	EET ALB	05/15/24 17:08
Total/NA	Analysis	2540C		1	4400	KB	EET ALB	05/06/24 10:19

Client Sample ID: MW-4

Date Collected: 04/30/24 15:42 Date Received: 05/02/24 07:55

Lab Sample ID: 885-3810-4 Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B			4552	JR	EET ALB	05/07/24 12:49
Total/NA	Analysis	300.0		200	4540	SS	EET ALB	05/07/24 22:14
Dissolved	Analysis	200.7 Rev 4.4		1	4392	VP	EET ALB	05/06/24 09:05
Dissolved	Analysis	200.7 Rev 4.4		1	4454	VP	EET ALB	05/06/24 16:31
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.7 Rev 4.4		5	4684	JR	EET ALB	05/09/24 11:08
Dissolved	Analysis	200.8		5	5671	BV	EET ALB	05/26/24 10:28
Total Recoverable	Prep	200.2			4537	TM	EET ALB	05/08/24 08:44
Total Recoverable	Analysis	200.8		5	5081	BV	EET ALB	05/15/24 17:15
Total/NA	Analysis	2540C		1	4400	KB	EET ALB	05/06/24 10:19

Client Sample ID: Trip Blank

Date Collected: 04/30/24 00:00

Date Received: 05/02/24 07:55

Lab Sample ID: 885-3810-5

**Matrix: Water** 

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B			4552	JR	EET ALB	05/07/24 13:18

#### **Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

# **Accreditation/Certification Summary**

Client: Ranger Environmental Services, Inc Job ID: 885-3810-1

Project/Site: WilliamsPit

# **Laboratory: Eurofins Albuquerque**

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Oregon	NELAP	NM100001	02-26-25

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PAGE 1 OF 2

9 10

5/29/2024

\$'-3xMCL VOAS, IXSOOML PLOSTER, IXASONL (LOSTER (WWDS) 885-3810 COC HALL ENVIRONMENT If necessary samples submitted to Hall Environmental may be subcontracted to other actredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report. ANALYSIS LABORAT 4901 Hawkins NE - Albuquerque, NM 87109 Not Frozan Jn 5/2/24 Remarks Bill to EOG Midland attn Chase Settle Fax 505-345-4107 Analysis Request + 1x (25 mc passace (MNO3) Tel 505-345-3975 See attached list × × Chloride (EPA 300) TPH-8015D(GRO / DRO / MRO) (1208) X3T8 1005 100020 4/2/24 7158 Lee1 Time Time HEAL No. Sampler & KIEROOF & J. MANINEZ ■ Rush EOG TAT 3 ナ 2 5/1/2/ 20 Project Name WELLIAMS PIT Project Manager W Kierdorf Preservative SEE 2007ES Cooler Temp(Including CF). -FYes FCE Type Ş Turn-Around Time Project # 5375 WILLIAM □ Standard # of Coolers: Type and # 2 ML URAS Container Received by On Ice: **≱** □ Level 4 (Full Validation) Date Time Matrix Sample Name

8 4/34/34 | 1359 | AR | Mw-1 Chain-of-Custody Record Mailing Address EOG - 5509 Champions Drive Midland Tx TRIP BLANK MW-4 MW-3 Ranger PO Box 201179, Austin TX 78720 email or Fax# Will@RangerEnv com ☐ Az Compliance Relinquished by Relinquished by Client EOG / Ranger Env □ Other Phone # 521-335-1785 Excel 9 1900 QA/QC Package EDD (Type) 154y 5541 1333 Accreditation Time Standard Time ■ NELAC 50/1/s Date Date

## Williams Pit Analysis Request

- o Arsenic
- o Benzene, Tourene, ETHYLEENLEN & XYLEENES
- o Chloride
- o Chromium
- o Iron
- o Manganese
- o Selenium
- o Silver
- o Sulfate
- o Total Dissolved Solids
- & PLEASE CALL FOR TREEP GLAND ENSTRUCENS

## **Login Sample Receipt Checklist**

Client: Ranger Environmental Services, Inc Job Number: 885-3810-1

Login Number: 3810 List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Samples not Frozen
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Will Kierdorf Ranger Environmental Services, Inc 7215 McNeil Drive PO BOX 201179 Austin, Texas 78729

Generated 11/19/2024 1:31:27 PM Revision 1

# **JOB DESCRIPTION**

Williams Pit

## **JOB NUMBER**

885-12631-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

# **Eurofins Albuquerque**

## **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## **Authorization**

Generated 11/19/2024 1:31:27 PM Revision 1

Authorized for release by Jackie Bolte, Project Manager jackie.bolte@et.eurofinsus.com Designee for Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com (505)345-3975 \_\_

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Laboratory Job ID: 885-12631-1

Client: Ranger Environmental Services, Inc Project/Site: Williams Pit

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## **Definitions/Glossary**

Client: Ranger Environmental Services, Inc. Job ID: 885-12631-1

Project/Site: Williams Pit

#### **Qualifiers**

**HPLC/IC** 

Qualifier **Qualifier Description** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**Metals** 

Qualifier **Qualifier Description** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis ₩

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Negative / Absent NEG POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

**Eurofins Albuquerque** 

#### **Case Narrative**

Client: Ranger Environmental Services, Inc.

Project: Williams Pit

Job ID: 885-12631-1

Job ID: 885-12631-1

**Eurofins Albuquerque** 

Job Narrative 885-12631-1

#### REVISION

The report being provided is a revision of the original report sent on 10/14/2024. The report (revision 1) is being revised due to Updated Sample Time.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

#### Receipt

The samples were received on 9/26/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C.

#### GC/MS VOA

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

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

#### Metals

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

### **General Chemistry**

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

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-1

Date Collected: 09/24/24 13:35

Date Received: 09/26/24 08:00

Lab Sample ID: 885-12631-1

**Matrix: Water** 

Job ID: 885-12631-1

Method: SW846 8260B - Volati	ie Organic	Compound	us (GC/IVIO)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			10/06/24 17:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				10/06/24 17:57	1
4-Bromofluorobenzene (Surr)	96		70 - 130				10/06/24 17:57	1
Dibromofluoromethane (Surr)	100		70 - 130				10/06/24 17:57	1
Toluene-d8 (Surr)	97		70 - 130				10/06/24 17:57	1
Method: EPA 300.0 - Anions, Id	on Chromat	tography						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9700		500	mg/L			10/02/24 09:48	1000
Sulfate	2200		50	mg/L			09/29/24 10:24	100
- Method: EPA 200.7 Rev 4.4 - M	letals (ICP)	- Dissolve	d					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.020	mg/L			09/27/24 14:18	1
Manganese	ND		0.0020	mg/L			09/27/24 14:18	1
Chromium	ND		0.0060	mg/L			09/27/24 14:18	1
Silver	0.042		0.0050	mg/L			09/27/24 14:18	1
Method: EPA 200.8 - Metals (IC	P/MS) - Dis	solved						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0036		0.00050	mg/L			09/28/24 11:30	1
Selenium	0.020		0.0010	mg/L			09/28/24 11:30	1
General Chemistry								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	23000		2500	mg/L			10/01/24 14:50	

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

**Client Sample ID: MW-2** 

Date Collected: 09/24/24 15:40

Date Received: 09/26/24 08:00

Lab Sample ID: 885-12631-2

**Matrix: Water** 

Job ID: 885-12631-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.2		1.0	ug/L			10/07/24 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				10/07/24 18:27	1
4-Bromofluorobenzene (Surr)	98		70 - 130				10/07/24 18:27	1
Dibromofluoromethane (Surr)	105		70 - 130				10/07/24 18:27	1
Toluene-d8 (Surr)	96		70 - 130				10/07/24 18:27	1
Method: EPA 300.0 - Anions, Id	on Chroma	tography						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7400		500	mg/L			10/02/24 10:01	1000
Sulfate	2100		50	mg/L			09/29/24 10:49	100
Method: EPA 200.7 Rev 4.4 - M	letals (ICP)	- Dissolve	d					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.020	mg/L			09/27/24 14:20	1
Manganese	0.71		0.0020	mg/L			09/27/24 14:20	1
Chromium	ND		0.0060	mg/L			09/27/24 14:20	1
Silver	0.033		0.0050	mg/L			09/27/24 14:20	1
Method: EPA 200.8 - Metals (IC	P/MS) - Dis	ssolved						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0030		0.00050	mg/L			09/28/24 11:33	1
Selenium	0.018		0.0010	mg/L			09/28/24 11:33	1
General Chemistry								
Analyte	Pocult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte	ixesuit	Qualifier	11	Oilit		rieparea	Allalyzea	Diriac

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

**Client Sample ID: MW-3** Date Collected: 09/24/24 14:41

**Total Dissolved Solids (SM 2540C)** 

Lab Sample ID: 885-12631-3

**Matrix: Water** 

Job ID: 885-12631-1

Method: SW846 8260B - Vola Analyte	_	Compound Qualifier	ds (GC/MS) RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	_ Result ND	Qualifier	1.0	ug/L		Prepareu	10/06/24 19:35	DII Fac
Delizerie	ND		1.0	ug/L			10/00/24 19.55	ı
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130			-	10/06/24 19:35	1
4-Bromofluorobenzene (Surr)	97		70 - 130				10/06/24 19:35	1
Dibromofluoromethane (Surr)	103		70 - 130				10/06/24 19:35	1
Toluene-d8 (Surr)	94		70 - 130				10/06/24 19:35	1
Method: EPA 300.0 - Anions	Ion Chroma	tography						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8200		500	mg/L			10/02/24 10:14	1000
Sulfate	2000		50	mg/L			09/29/24 11:13	100
Method: EPA 200.7 Rev 4.4 -	Metals (ICP)	- Dissolve	d					
Analyte	,	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.020	mg/L			09/27/24 14:24	1
Manganese	ND		0.0020	mg/L			09/27/24 14:24	1
Chromium	ND		0.0060	mg/L			09/27/24 14:24	1
Silver	0.038		0.0050	mg/L			09/27/24 14:24	1
Method: EPA 200.8 - Metals	(ICP/MS) - Dis	ssolved						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0029	-	0.00050	mg/L		-	09/28/24 11:41	1
Selenium	0.018		0.0010	mg/L			09/28/24 11:41	1
General Chemistry								
Analyte	Pocult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

1000

20000

mg/L

10/01/24 14:50

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-4

Date Collected: 09/24/24 14:04

Date Received: 09/26/24 08:00

Lab Sample ID: 885-12631-4

**Matrix: Water** 

Job ID: 885-12631-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			10/06/24 19:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				10/06/24 19:59	1
4-Bromofluorobenzene (Surr)	95		70 - 130				10/06/24 19:59	1
Dibromofluoromethane (Surr)	103		70 - 130				10/06/24 19:59	1
Toluene-d8 (Surr)	95		70 - 130				10/06/24 19:59	1
Method: EPA 300.0 - Anions, I	on Chroma	tography						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2800		100	mg/L			10/02/24 10:27	200
Sulfate	2000		50	mg/L			09/29/24 12:03	100
Method: EPA 200.7 Rev 4.4 - N	letals (ICP)	- Dissolve	d					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.020	mg/L			09/27/24 14:28	1
Manganese	0.12		0.0020	mg/L			09/27/24 14:28	1
Chromium	ND		0.0060	mg/L			09/27/24 14:28	1
Silver	0.023		0.0050	mg/L			09/27/24 14:28	1
Method: EPA 200.8 - Metals (I	CP/MS) - Dis	ssolved						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011	-	0.00050	mg/L			09/28/24 11:43	1
Selenium	0.022		0.0010	mg/L			09/28/24 11:43	1
Ociemani								
General Chemistry Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client: Ranger Environmental Services, Inc Job ID: 885-12631-1

Project/Site: Williams Pit

Client Sample ID: Trip Blank

Lab Sample ID: 885-12631-5

Date Collected: 09/24/24 00:00 Matrix: Water

Date Received: 09/26/24 08:00

Analyte	_	Qualifier	ds (GC/MS) RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L		·	10/06/24 20:23	1
Ethylbenzene	ND		1.0	ug/L			10/06/24 20:23	1
Toluene	ND		1.0	ug/L			10/06/24 20:23	1
Xylenes, Total	ND		1.5	ug/L			10/06/24 20:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				10/06/24 20:23	1
4-Bromofluorobenzene (Surr)	95		70 - 130				10/06/24 20:23	1
Dibromofluoromethane (Surr)	104		70 - 130				10/06/24 20:23	1
Toluene-d8 (Surr)	94		70 - 130				10/06/24 20:23	1

Project/Site: Williams Pit

Job ID: 885-12631-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-13755/6

**Matrix: Water** 

**Analysis Batch: 13755** 

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

MB MB Result Qualifier RL Unit Dil Fac Analyte D Prepared Analyzed Benzene ND 1.0 ug/L 10/06/24 17:30 Ethylbenzene ND 1.0 ug/L 10/06/24 17:30 ND Toluene 1.0 ug/L 10/06/24 17:30 ND 10/06/24 17:30 Xylenes, Total 1.5 ug/L

MB MB Qualifier Limits Prepared Dil Fac Surrogate %Recovery Analyzed 1,2-Dichloroethane-d4 (Surr) 93 70 - 130 10/06/24 17:30 96 4-Bromofluorobenzene (Surr) 70 - 130 10/06/24 17:30 70 - 130 100 Dibromofluoromethane (Surr) 10/06/24 17:30 96 70 - 130 10/06/24 17:30 Toluene-d8 (Surr)

Lab Sample ID: STOBLK 885-13755/19

**Matrix: Water** 

**Analysis Batch: 13755** 

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

STOBLK STOBLK Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/06/24 22:49 Benzene  $\overline{\mathsf{ND}}$ 1.0 ug/L ND 10/06/24 22:49 Ethylbenzene 1.0 ug/L Toluene ND 1.0 ug/L 10/06/24 22:49 ND ug/L 10/06/24 22:49 Xylenes, Total 1.5

STOBLK STOBLK Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 1,2-Dichloroethane-d4 (Surr) 98 70 - 130 10/06/24 22:49 95 4-Bromofluorobenzene (Surr) 70 - 130 10/06/24 22:49 106 70 - 130 10/06/24 22:49 Dibromofluoromethane (Surr) 95 70 - 130 Toluene-d8 (Surr) 10/06/24 22:49

Lab Sample ID: LCS 885-13755/5

**Matrix: Water** 

**Analyte** 

Benzene

Toluene

**Analysis Batch: 13755** 

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

Spike LCS LCS %Rec Result Qualifier Added Unit D %Rec Limits 20.1 22.4 ug/L 111 70 - 130 20.2 20.2 ug/L 100 70 - 130

LCS LCS %Recovery Qualifier Surrogate Limits 1,2-Dichloroethane-d4 (Surr) 91 70 - 130 70 - 130 4-Bromofluorobenzene (Surr) 97 Dibromofluoromethane (Surr) 99 70 - 130 Toluene-d8 (Surr) 96 70 - 130

Lab Sample ID: 885-12631-1 MS

Released to Imaging: 5/6/2025 1:16:39 PM

**Matrix: Water** 

Client Sample ID: MW-1 Prep Type: Total/NA **Analysis Batch: 13755** MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits

ND 20.1 24.2 120 70 - 130 Benzene ug/L Toluene ND 20.2 21.2 ug/L 105 70 - 130

Eurofins Albuquerque

Project/Site: Williams Pit

Job ID: 885-12631-1

Client Sample ID: Method Blank

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: 885-12631-1 MSD

**Analysis Batch: 13755** 

Client Sample ID: MW-1 **Matrix: Water** Prep Type: Total/NA

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier Limits RPD Limit **Analyte** Unit D %Rec 20.1 Benzene ND 23.0 ug/L 114 70 - 130 5 20 Toluene ND 20.2 20.5 ug/L 101 70 - 130 4 20

MSD MSD Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 96 70 - 130

4-Bromofluorobenzene (Surr) 98 70 - 130 70 - 130 Dibromofluoromethane (Surr) 102 Toluene-d8 (Surr) 96 70 - 130

Lab Sample ID: MB 885-13800/7

**Matrix: Water** 

**Analysis Batch: 13800** 

**Prep Type: Total/NA** 

MB MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene ND 1.0 ug/L 10/07/24 13:21 Ethylbenzene ND 1.0 ug/L 10/07/24 13:21 Toluene ND 1.0 10/07/24 13:21 ug/L

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/07/24 13:21	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/07/24 13:21	1
Dibromofluoromethane (Surr)	103		70 - 130		10/07/24 13:21	1
Toluene-d8 (Surr)	96		70 - 130		10/07/24 13:21	1

**Analysis Batch: 13800** 

Lab Sample ID: LCS 885-13800/5 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	20.0	23.9		ug/L		120	70 - 130	
Ethylbenzene	20.0	20.3		ug/L		102	70 - 130	
m-Xylene & p-Xylene	40.0	41.1		ug/L		103	70 - 130	
o-Xylene	20.0	20.1		ug/L		100	70 - 130	
Toluene	20.0	20.9		ug/L		105	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Eurofins Albuquerque

Job ID: 885-12631-1

Project/Site: Williams Pit

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 885-13800/6 **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

**Analysis Batch: 13800** 

**Prep Type: Total/NA** 

LCS LCS Limits %Recovery Qualifier Surrogate 70 - 130 1,2-Dichloroethane-d4 (Surr) 91 4-Bromofluorobenzene (Surr) 97 70 - 130 Dibromofluoromethane (Surr) 99 70 - 130 Toluene-d8 (Surr) 97 70 - 130

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-13334/4 Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Matrix: Water** 

**Analysis Batch: 13334** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L	<del></del>		09/29/24 09:47	1
Sulfate	ND		0.50	mg/L			09/29/24 09:47	1

Lab Sample ID: LCS 885-13334/5 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA** 

**Analysis Batch: 13334** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 5.00	4.86		mg/L		97	90 - 110	
Sulfate	10.0	9 64		ma/l		96	90 - 110	

Lab Sample ID: MRL 885-13334/3 **Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

**Matrix: Water** 

**Analysis Batch: 13334** 

7 ma <b>., 6</b> .0 2 a.o.m 1000 .	Spike	MRL	MRL				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	 0.500	0.530		mg/L		106	50 - 150		_
Sulfate	0.500	0.513		mg/L		103	50 - 150		

Lab Sample ID: MB 885-13575/4 **Client Sample ID: Method Blank** 

**Matrix: Water** 

**Analysis Batch: 13575** 

	MB	INIR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L			10/02/24 08:30	1
Sulfate	ND		0.50	mg/L			10/02/24 08:30	1

Lab Sample ID: LCS 885-13575/5 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 13575** 

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-	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier	Unit [	%Rec	Limits	
Chloride	5.00	4.91		mg/L	98	90 - 110	 
Sulfate	10.0	9.46		mg/L	95	90 - 110	

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**Prep Type: Total/NA** 

Project/Site: Williams Pit

Job ID: 885-12631-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 885-13575/3

**Matrix: Water** 

**Analysis Batch: 13575** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 0.500 0.522 mg/L 104 50 - 150 Sulfate 0.500 0.483 J mg/L 97 50 - 150

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-13232/40

**Matrix: Water** 

**Analysis Batch: 13232** 

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

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac

**Analyte** ND 0.020 09/27/24 13:53 Iron mg/L Manganese ND 0.0020 mg/L 09/27/24 13:53 Chromium ND 0.0060 mg/L 09/27/24 13:53 Silver ND 0.0050 09/27/24 13:53 mg/L

Lab Sample ID: LCS 885-13232/42 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 13232** 

LCS LCS %Rec Spike Added Result Qualifier Limits Unit D %Rec Analyte 0.500 0.541 108 85 - 115 Iron mg/L 0.500 Manganese 0.548 mg/L 110 85 - 115 Chromium 0.500 0.539 mg/L 108 85 - 115 0.552 Silver 0.500 mg/L 110 85 - 115

Lab Sample ID: LLCS 885-13232/41 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 13232** 

/ many one Date min 10202						
	Spike	LLCS LLCS				%Rec
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits
Iron	0.0200	0.0161 J	mg/L		80	50 - 150
Manganese	0.00200	0.00201	mg/L		101	50 - 150
Chromium	0.00600	0.00770	mg/L		128	50 - 150
Silver	0.00500	0.00625	mg/L		125	50 - 150

Lab Sample ID: MRL 885-13232/37 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 13232

Released to Imaging: 5/6/2025 1:16:39 PM

Alialysis Datcii. 13232									
	Spike	MRL	MRL				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Iron	0.0200	0.0210	J	mg/L		105	50 - 150		
Manganese	0.00200	0.00185	J	mg/L		93	50 - 150		
Chromium	0.00600	0.00683		mg/L		114	50 - 150		
Silver	0.00500	0.00520		mg/L		104	50 - 150		

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Job ID: 885-12631-1

Client Sample ID: MW-4

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 885-12631-4 MS

Client Sample ID: MW-4 **Matrix: Water Prep Type: Dissolved Analysis Batch: 13232** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	ND		0.500	0.474		mg/L		95	70 - 130	
Manganese	0.12		0.500	0.550		mg/L		86	70 - 130	
Chromium	ND		0.500	0.448		mg/L		90	70 - 130	
Silver	0.023		0.500	0.484		mg/L		92	70 - 130	

Lab Sample ID: 885-12631-4 MSD

**Matrix: Water Prep Type: Dissolved Analysis Batch: 13232** MSD MSD Spike %Rec **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit

Iron ND 0.500 0.456 91 70 - 130 4 20 mg/L 0.500 Manganese 0.12 0.537 mg/L 83 70 - 130 2 20 0.415 Chromium ND 0.500 mg/L 83 70 - 130 8 20 Silver 0.023 0.500 0.461 mg/L 88 70 - 130 20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MRL 885-13293/10 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 13293** 

MRL MRL Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Arsenic 0.000500 0.000498 100 50 - 150 mg/L 0.000500 Selenium ND mg/L 84 50 - 150

Lab Sample ID: MRL 885-13293/9 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 13293** 

MRL MRL Spike %Rec **Analyte** Added Result Qualifier Unit D %Rec Limits Arsenic 0.00100 0.00103 mg/L 103 50 - 150 Selenium 0.00100 0.000886 J mg/L 89 50 - 150

Lab Sample ID: MB 885-13148/1-A Client Sample ID: Method Blank

**Matrix: Water Prep Type: Dissolved Analysis Batch: 13293** Prep Batch: 13148 MB MB

Result Qualifier RL Unit Dil Fac Analyte D Prepared Analyzed Arsenic ND 0.00050 mg/L 09/27/24 08:54 09/28/24 10:37 Selenium ND 0.0010 mg/L 09/27/24 08:54 09/28/24 10:37

**Matrix: Water** 

Released to Imaging: 5/6/2025 1:16:39 PM

Lab Sample ID: LCS 885-13148/4-A

Analysis Batch: 13293							Prep B	atch: 13148
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.0250	0.0240		mg/L		96	85 - 115	
Selenium	0.0250	0.0237		mg/L		95	85 - 115	

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**Client Sample ID: Lab Control Sample Prep Type: Dissolved** 

### QC Sample Results

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-12631-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LLCS 885-13148/2-A

**Matrix: Water** 

**Analysis Batch: 13293** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Dissolved** 

Prep Batch: 13148

Spike LLCS LLCS %Rec Limits Analyte Added Result Qualifier Unit D %Rec Arsenic 0.00100 0.000980 mg/L 98 50 - 150 Selenium 0.00100 ND mg/L 92 50 - 150

Method: 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 885-13402/1

**Matrix: Water** 

**Analysis Batch: 13402** 

MB MB

Analyte

Total Dissolved Solids ND

Result Qualifier

RL 50 Unit mg/L

LCS LCS

1000

Result Qualifier

Unit

mg/L

Prepared

Analyzed 10/01/24 14:50

Prep Type: Total/NA

Dil Fac

Lab Sample ID: LCS 885-13402/2

**Matrix: Water** 

**Analysis Batch: 13402** 

Spike Analyte Added 1000 Total Dissolved Solids

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

%Rec

100

Client Sample ID: Method Blank

%Rec

Limits 80 - 120

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# **QC Association Summary**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-12631-1

### **GC/MS VOA**

### **Analysis Batch: 13755**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Total/NA	Water	8260B	
885-12631-3	MW-3	Total/NA	Water	8260B	
885-12631-4	MW-4	Total/NA	Water	8260B	
885-12631-5	Trip Blank	Total/NA	Water	8260B	
MB 885-13755/6	Method Blank	Total/NA	Water	8260B	
STOBLK 885-13755/19	Method Blank	Total/NA	Water	8260B	
LCS 885-13755/5	Lab Control Sample	Total/NA	Water	8260B	
885-12631-1 MS	MW-1	Total/NA	Water	8260B	
885-12631-1 MSD	MW-1	Total/NA	Water	8260B	

#### **Analysis Batch: 13800**

Lab Sample ID 885-12631-2	Client Sample ID MW-2	Prep Type Total/NA	Matrix Water	Method 8260B	Prep Batch
MB 885-13800/7	Method Blank	Total/NA	Water	8260B	
LCS 885-13800/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 885-13800/6	Lab Control Sample	Total/NA	Water	8260B	

### HPLC/IC

### **Analysis Batch: 13334**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Total/NA	Water	300.0	
885-12631-2	MW-2	Total/NA	Water	300.0	
885-12631-3	MW-3	Total/NA	Water	300.0	
885-12631-4	MW-4	Total/NA	Water	300.0	
MB 885-13334/4	Method Blank	Total/NA	Water	300.0	
LCS 885-13334/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-13334/3	Lab Control Sample	Total/NA	Water	300.0	

### **Analysis Batch: 13575**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Total/NA	Water	300.0	
885-12631-2	MW-2	Total/NA	Water	300.0	
885-12631-3	MW-3	Total/NA	Water	300.0	
885-12631-4	MW-4	Total/NA	Water	300.0	
MB 885-13575/4	Method Blank	Total/NA	Water	300.0	
LCS 885-13575/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-13575/3	Lab Control Sample	Total/NA	Water	300.0	

### Metals

#### Filtration Batch: 13130

Lab Sample ID 885-12631-1	Client Sample ID MW-1	Prep Type Dissolved	Matrix Water	Method Filtration	Prep Batch
885-12631-2	MW-2	Dissolved	Water	Filtration	
885-12631-3	MW-3	Dissolved	Water	Filtration	
885-12631-4	MW-4	Dissolved	Water	Filtration	
885-12631-4 MS	MW-4	Dissolved	Water	Filtration	
885-12631-4 MSD	MW-4	Dissolved	Water	Filtration	

# **QC Association Summary**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-12631-1

### **Metals**

### Prep Batch: 13148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-13148/1-A	Method Blank	Dissolved	Water	200.2	
LCS 885-13148/4-A	Lab Control Sample	Dissolved	Water	200.2	
LLCS 885-13148/2-A	Lab Control Sample	Dissolved	Water	200.2	

#### **Analysis Batch: 13232**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Dissolved	Water	200.7 Rev 4.4	13130
885-12631-2	MW-2	Dissolved	Water	200.7 Rev 4.4	13130
885-12631-3	MW-3	Dissolved	Water	200.7 Rev 4.4	13130
885-12631-4	MW-4	Dissolved	Water	200.7 Rev 4.4	13130
MB 885-13232/40	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-13232/42	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-13232/41	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-13232/37	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-12631-4 MS	MW-4	Dissolved	Water	200.7 Rev 4.4	13130
885-12631-4 MSD	MW-4	Dissolved	Water	200.7 Rev 4.4	13130

### **Analysis Batch: 13293**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Dissolved	Water	200.8	13130
885-12631-2	MW-2	Dissolved	Water	200.8	13130
885-12631-3	MW-3	Dissolved	Water	200.8	13130
885-12631-4	MW-4	Dissolved	Water	200.8	13130
MB 885-13148/1-A	Method Blank	Dissolved	Water	200.8	13148
LCS 885-13148/4-A	Lab Control Sample	Dissolved	Water	200.8	13148
LLCS 885-13148/2-A	Lab Control Sample	Dissolved	Water	200.8	13148
MRL 885-13293/10	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-13293/9	Lab Control Sample	Total/NA	Water	200.8	

## **General Chemistry**

### **Analysis Batch: 13402**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12631-1	MW-1	Total/NA	Water	2540C	<u> </u>
885-12631-2	MW-2	Total/NA	Water	2540C	
885-12631-3	MW-3	Total/NA	Water	2540C	
885-12631-4	MW-4	Total/NA	Water	2540C	
MB 885-13402/1	Method Blank	Total/NA	Water	2540C	
LCS 885-13402/2	Lab Control Sample	Total/NA	Water	2540C	

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Project/Site: Williams Pit

Lab Sample ID: 885-12631-1

**Matrix: Water** 

Job ID: 885-12631-1

Client Sample ID: MW-1 Date Collected: 09/24/24 13:35 Date Received: 09/26/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B			13755	CM	EET ALB	10/06/24 17:57
Total/NA	Analysis	300.0		1000	13575	JT	EET ALB	10/02/24 09:48
Total/NA	Analysis	300.0		100	13334	RC	EET ALB	09/29/24 10:24
Dissolved	Filtration	Filtration			13130	TC	<b>EET ALB</b>	09/26/24 17:15
Dissolved	Analysis	200.7 Rev 4.4		1	13232	VP	EET ALB	09/27/24 14:18
Dissolved	Filtration	Filtration			13130	TC	<b>EET ALB</b>	09/26/24 17:15
Dissolved	Analysis	200.8		1	13293	ES	EET ALB	09/28/24 11:30
Total/NA	Analysis	2540C		1	13402	KB	EET ALB	10/01/24 14:50

**Client Sample ID: MW-2** Lab Sample ID: 885-12631-2

Date Collected: 09/24/24 15:40 **Matrix: Water** 

Date Received: 09/26/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B			13800	СМ	EET ALB	10/07/24 18:27
Total/NA	Analysis	300.0		1000	13575	JT	EET ALB	10/02/24 10:01
Total/NA	Analysis	300.0		100	13334	RC	EET ALB	09/29/24 10:49
Dissolved	Filtration	Filtration			13130	TC	EET ALB	09/26/24 17:15
Dissolved	Analysis	200.7 Rev 4.4		1	13232	VP	EET ALB	09/27/24 14:20
Dissolved	Filtration	Filtration			13130	TC	<b>EET ALB</b>	09/26/24 17:15
Dissolved	Analysis	200.8		1	13293	ES	EET ALB	09/28/24 11:33
Total/NA	Analysis	2540C		1	13402	KB	EET ALB	10/01/24 14:50

**Client Sample ID: MW-3** Lab Sample ID: 885-12631-3

Date Collected: 09/24/24 14:41 Date Received: 09/26/24 08:00

Duna Tama	Batch	Batch	D	Dilution	Batch	Amalijat	l ab	Prepared
Prep Type	Type	Method	Run	Factor	Number		Lab	or Analyzed
Total/NA	Analysis	8260B		1	13755	CM	EET ALB	10/06/24 19:35
Total/NA	Analysis	300.0		1000	13575	JT	EET ALB	10/02/24 10:14
Total/NA	Analysis	300.0		100	13334	RC	EET ALB	09/29/24 11:13
Dissolved	Filtration	Filtration			13130	TC	EET ALB	09/26/24 17:15
Dissolved	Analysis	200.7 Rev 4.4		1	13232	VP	EET ALB	09/27/24 14:24
Dissolved	Filtration	Filtration			13130	TC	EET ALB	09/26/24 17:15
Dissolved	Analysis	200.8		1	13293	ES	EET ALB	09/28/24 11:41
Total/NA	Analysis	2540C		1	13402	KB	EET ALB	10/01/24 14:50

**Client Sample ID: MW-4** Lab Sample ID: 885-12631-4

Date Collected: 09/24/24 14:04 Date Received: 09/26/24 08:00

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B	_	1	13755	СМ	EET ALB	10/06/24 19:59
Total/NA	Analysis	300.0		200	13575	JT	EET ALB	10/02/24 10:27

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**Matrix: Water** 

**Matrix: Water** 

### **Lab Chronicle**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Lab Sample ID: 885-12631-4

**Matrix: Water** 

Job ID: 885-12631-1

Client Sample ID: MW-4 Date Collected: 09/24/24 14:04 Date Received: 09/26/24 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	300.0		100	13334	RC	EETALB	09/29/24 12:03
Dissolved	Filtration	Filtration			13130	TC	EET ALB	09/26/24 17:15
Dissolved	Analysis	200.7 Rev 4.4		1	13232	VP	EET ALB	09/27/24 14:28
Dissolved	Filtration	Filtration			13130	TC	<b>EET ALB</b>	09/26/24 17:15
Dissolved	Analysis	200.8		1	13293	ES	EET ALB	09/28/24 11:43
Total/NA	Analysis	2540C		1	13402	KB	EET ALB	10/01/24 14:50

Lab Sample ID: 885-12631-5

**Matrix: Water** 

Date Collected: 09/24/24 00:00 Date Received: 09/26/24 08:00

**Client Sample ID: Trip Blank** 

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	13755	CM	EET ALB	10/06/24 20:23

### **Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

## **Accreditation/Certification Summary**

Client: Ranger Environmental Services, Inc Job ID: 885-12631-1

Project/Site: Williams Pit

**Laboratory: Eurofins Albuquerque** 

The accreditations/certifications listed below are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Oregon	NELAP	NM100001	02-26-25

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HALL ENVIRONMENT   Standard   Rush EGGTAT	Chai	n-or-CL	Chain-or-Custody Record	Turn-Around T	Time:								7
Project Name Lizerzaws   Pz7   Project Name Lizerzaws   Pz7   Project Wanager: W Kierdorf	ent: EOG /	Ranger En	۷.	Standard					HAL	L ENV	IRON	MENT	五
Project # 5375	ling Address:	FOG - 5509	Pampions Drive Midland Tx	Project Name	WILLIAMS	PET			ANA	LYSIS	LAB	ORATO	3
Project Manager: W. Kierdorf  Sampler: L. Lierzoous/J. Marzuez  On loe: A vonstance of the color	nogramas	x 201179 A	ustin TX 78720	Project #: 53	75		490	1 Hawk		Albuquer	dne, NM 8	37109	885-12631 COC
Project Manager: W. Kierdorf  Sampler: L. LECROSE/J. MADIZUEZ  On Ice: # of Coolers: A Yes   No.    Container   Preservative   HEAL No.    Type and # Type   Time   Remarks: Bill to    Received by: Via:   A MADIZUEZ  Received by: Via:   A MADIZUEZ  Received by: Via:   A MADIZUEZ  Sampler: L. LECROSE/J. MADIZUEZ  On Ice: # of Coolers: A Madizuez  A Madiz	4 2 4	200 4700		5	2		Te	. 505-34	15-3975	Fax 50	5-345-410	07	
Sampler L. Azeroo es/7, Marzuez   Container   Freservative   Fre	nail or Fax#	#: Will@Ran	igerEnv.com	Project Mana	ger: W. Kierd	Jorf	(		F			E	E
Sampler   L. LIERCOCK   T. MORTALEZ	/QC Packae	 	□ Level 4 (Full Validation)				OAM /						
Type   Excel	creditation			Sampler: 6.1			) I DBC						
Time   Matrix   Sample   Name   Type and # Type   Type   Type and # Type   Type   Type and # Type	EDD (Type			# of Coolers:	-	101							
Matrix Sample Name Type and # Type  As Mw-2  As Mw-3  As Mw-4  As Mw-4  As Mw-4  As Mw-4  As Mw-4  As Mw-4  As Mas Belinquished by:  Received		l}—		Cooler Temp	(Including CF):	9+03=3.30							
1335 AR MW-2	ate Time		-		Preservative Type								
As mw-3  As mw-3  As mw-4  As Thesp & Lown  As The marks: Bill to the following the fine of the following the fine of the following the fine of the f	1335 pa/vi		Mw-2	BSCE.NOTES	XEE NOTES	_							
As mu-3  As mu-4  As much letter  As lons much letter  As lons much letter  As lons much letter  As lons much letter  As long much letter  As long much letter  As much letter  As long much letter  As much l			Mw-3			2							
A 2			8-MW			83							
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## Williams Pit Analysis Request

- o Benzene
- Chromium
- Iron
- Manganese
- Selenium

Released to Imaging: 5/6/2025 1:16:39 PM

- Total Dissolved Solids

PER DESCUSSION WETH A. FREEMAN ON 8/24 - FELTER FOR DESSOLUTIO METALS IN LAS.

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885-12631 COC # 3 MLL UPPS, IXSOO ML PLOSTEC (WPRESTEWS) + 1X8SO PLISTEE (MPRESTEWS) + 1X8SO PLISTEE (MPRESTEWS) **ANALYSIS LABORATO** PAGE / OF HALL ENVIRONMENT If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratones. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report 4901 Hawkins NE - Albuquerque, NM 87109 Remarks: Bill to EOG Midland attn. Chase Settle Fax 505-345-4107 **Analysis Request** Tel. 505-345-3975 See attached list Chloride (EPA 300) (PH:8015D(GRO / DRO / MRO) BTEX (8021) SED SED 153 Time Time HEAL No J. MOSTAEZ ESE DE COLORS ■ Rush EOG TAT 3 3 10 7 933 Date % \_\_\_ Project Name: LILLIAMS PIT Project Manager: W. Kierdorf Preservative SKE MOTES Sampler: W. KIEROOSE MCL/EUE Cooler Temp(including CF): M Yes Type Turn-Around Time: Via: Project #: 5375 □ Standard # of Coolers: Type and # CULLILL \$ SECE NOTES Container Received by: Received by 2x vogs On Ice: □ Level 4 (Full Validation) Chain-or-Custody Record Sample Name Mailing Address: EOG - 5509 Champions Drive, Midland Tx Mw-2 Tasp Bush mr-2 ケーへと M4-3 Ranger: PO Box 201179, Austin TX 78720 email or Fax#: Will@RangerEnv.com ☐ Az Compliance Relinquished by: Relinquished by Client: EOG / Ranger Env. Time | Matrix | □ Other Phone #: 521-335-1785 Excel AR 00 40 AG V T 1900 ■ EDD (Type) QA/QC Package: Date Time

1335

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1441 1041 pa/46/8 Accreditation: 手 1153 ■ Standard Time: Time: ■ NELAC 1/19/2024 (Rev. 1) 12424

# Williams Pit Analysis Request

- o Benzene
- Chromium
- Manganese
- Selenium

- Total Dissolved Solids

PER DISCUSSION WETH A. FREEMAN ON 9/24 - FILTER FOR DISSOLUTIO METALS IN LAB.

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PAGE OF	HALL ENVIRONMENT	ANALYSIS LABORATO	s NE - Albuqueraue, NM 87109		√nal															Remarks: Bill to EOG Midland attn: Chase Settle	IX500 ML PLOSTEC (WPRESENCY) + 1X030 PLOSTER	
			4901 Hawkins NE	Tel 505-345-3975		((	МКО	/0	(00	ЭRC	15D(	BTEX (TPH:80 Chloride								Remarks: Bill to EC	8 3 MLL VOAS, IX	
ime:	■ Rush EOG TAT	Welliams PET				Project Manager: W. Kierdorf			TEROOPS/J. MARINEZ	707	1.9+0.3=3.30	e HEAL No.	SEE MATES 1	2	60	7	nce/cre 5			Time	1 Meday 1153	Via: V Date Time OVID 9 OVID
Turn-Around Time:	□ Standard	Project Name: WILLIAMS		Project #: 5375		Project Manag			Sampler: W. WIEROORS	olers:	Cooler Temp(including CF):	Container F	\$ STEENITS &			4	2x 1095			Received by:	COCALLL	Received by:
Chain-or-Custody Record	Env.		Mailing Address: EOG - 5509 Champions Drive, Midland Tx	Ranger: PO Box 201179, Austin TX 78720	35	email or Fax#: Will@RangerEnv.com		☐ Level 4 (Full Validation)	☐ Az Compliance ☐ Other	<u>a</u>		Sample Name	MW-7	Mw-2	2 WW-3	7-m	Tasp Eignn			Relinquished by:		Time: Relinquished by: Via: Via: Via: Via: Via: Via: Via: Via
hain-or-	Client: EOG / Ranger Env		4ddress: EOG - 55(	PO Box 201179	Phone #: 521-335-1785	or Fax#: Will@F	QA/QC Package:	Standard	: CO	/pe)	$\vdash$	Time Matrix	1335 84	isto ag	imi Ae	iyou Aa	- A &			Time:	1153	Time: Relinque 1960
leased			•	•	•		•			■ EDC		Date	#2/12/ <sub>ge 2</sub>	nghol 6 of	78/28	75/24	1/24/24			.: 3 3 11/19	1202	the locate (Rev.

## Williams Pit Analysis Request

- Benzene
- Chromium
- Iron
- Manganese

- Total Dissolved Solids

PER DESCUSSION WETH A. FREEMAN ON 9/24 - FELTER FOR DESSOLUTIO METALS IN LAS.

11/19/2024 (Rev. 1)

## **Login Sample Receipt Checklist**

Client: Ranger Environmental Services, Inc Job Number: 885-12631-1

Login Number: 12631 List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

**Environment Testing** 

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Will Kierdorf Ranger Environmental Services, Inc 7215 McNeil Drive PO BOX 201179 Austin, Texas 78729

Generated 12/30/2024 10:13:29 AM

# **JOB DESCRIPTION**

Williams Pit

## **JOB NUMBER**

885-16875-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

# **Eurofins Albuquerque**

## **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## **Authorization**

Generated 12/30/2024 10:13:29 AM

Authorized for release by Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com (505)345-3975 2

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Laboratory Job ID: 885-16875-1

Client: Ranger Environmental Services, Inc Project/Site: Williams Pit

# **Table of Contents**

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#### **Definitions/Glossary**

Client: Ranger Environmental Services, Inc

Job ID: 885-16875-1 Project/Site: Williams Pit

**Qualifiers** 

**Metals** 

Qualifier **Qualifier Description** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**General Chemistry** 

Qualifier **Qualifier Description** 

F Result exceeded calibration range.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis ġ.

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present Practical Quantitation Limit POL

**PRES** Presumptive **Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

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#### **Case Narrative**

Client: Ranger Environmental Services, Inc

Project: Williams Pit

Job ID: 885-16875-1

Job ID: 885-16875-1

Eurofins Albuquerque

Job Narrative 885-16875-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

#### Receipt

The samples were received on 12/12/2024 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C.

#### GC/MS VOA

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

#### HPLC/IC

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

#### Metals

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

#### **General Chemistry**

Method 2540C\_SingleDry: The analysis volume selected for the following samples produced a base result greater than 200mg before calculation of the final result: MW-1 (885-16875-1), MW-2 (885-16875-2), MW-3 (885-16875-3) and MW-4 (885-16875-4). Reanalysis was not be performed due to no trapped moisture observed. The reference method specifies that no more than 200mg of weight be recovered for a chosen sample analysis volume in order to produce the best data precision. As such, since no moisture was observed, these data have been qualified.

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

**Eurofins Albuquerque** 

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Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-1 Lab Sample ID: 885-16875-1

Date Collected: 12/10/24 14:48
Date Received: 12/12/24 07:45

Matrix: Water

Job ID: 885-16875-1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			12/17/24 21:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		70 - 130				12/17/24 21:30	1
4-Bromofluorobenzene (Surr)	90		70 130				12/17/24 21:30	1

 4-Bromofluorobenzene (Surr)
 90
 70 - 130
 12/17/24 21:30

 Dibromofluoromethane (Surr)
 102
 70 - 130
 12/17/24 21:30

 Toluene-d8 (Surr)
 99
 70 - 130
 12/17/24 21:30

Method: EPA 300.0 - Anions, Ion Chromatography

Michiga. El A 000.0 - Allions, lo	ni Omomatograpny						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8500	500	mg/L			12/13/24 18:06	1000
Sulfate	2300	50	ma/L			12/12/24 15:11	100

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

	- ( )							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.50	mg/L	_	12/16/24 09:00	12/19/24 14:13	10
Manganese	ND		0.020	mg/L		12/16/24 09:00	12/19/24 14:13	10
Chromium	ND		0.060	mg/L		12/16/24 09:00	12/19/24 14:13	10
Silver	ND		0.050	mg/L		12/16/24 09:00	12/26/24 06:03	10

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable Result Qualifier Dil Fac Analyte RLUnit D Prepared Analyzed 0.0050 Arsenic ND mg/L 12/16/24 09:00 12/17/24 13:52 10 0.022 0.010 12/16/24 09:00 12/17/24 13:52 10 Selenium mg/L

**General Chemistry** 

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	18000 E	100	mg/L			12/17/24 10:06	1

Eurofins Albuquerque

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Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-2 Lab Sample ID: 885-16875-2

Date Collected: 12/10/24 15:27
Date Received: 12/12/24 07:45

Matrix: Water

Job ID: 885-16875-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			12/17/24 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130				12/17/24 21:54	1
4-Bromofluorobenzene (Surr)	91		70 - 130				12/17/24 21:54	1
Dibromofluoromethane (Surr)	103		70 - 130				12/17/24 21:54	1
Toluene-d8 (Surr)	99		70 - 130				12/17/24 21:54	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4200		250	mg/L			12/13/24 18:58	500
Sulfate	2100		50	mg/L			12/12/24 15:33	100
• ***								
- -	als (ICP) - Tota	l Recoveral	ole					
: Method: EPA 200.7 Rev 4.4 - Meta		I Recoveral Qualifier	ole RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: EPA 200.7 Rev 4.4 - Meta Analyte					<u>D</u>	Prepared 12/16/24 09:00	Analyzed 12/19/24 14:14	Dil Fac
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron	Result		RL		<u>D</u>			10
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese	Result			mg/L	<u>D</u>	12/16/24 09:00	12/19/24 14:14	10
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium	Result ND 0.56		0.50 0.020	mg/L mg/L	<u>D</u>	12/16/24 09:00 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14	10 10 10
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium Silver	Result ND 0.56 ND ND	Qualifier	0.50 0.020 0.060	mg/L mg/L mg/L	<u>D</u>	12/16/24 09:00 12/16/24 09:00 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14	10 10 10
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium Silver Method: EPA 200.8 - Metals (ICP/	Result ND 0.56 ND ND ND	Qualifier	0.50 0.020 0.060	mg/L mg/L mg/L	<u>D</u>	12/16/24 09:00 12/16/24 09:00 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14	10 10 10 10
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium Silver  Method: EPA 200.8 - Metals (ICP/Analyte	Result ND 0.56 ND ND ND	Qualifier	0.50 0.020 0.060 0.050	mg/L mg/L mg/L mg/L		12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14 12/26/24 06:05	10 10 10 10 Dil Fac
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium Silver  Method: EPA 200.8 - Metals (ICP/Analyte Arsenic	Result ND 0.56 ND ND ND MS) - Total Rec Result	Qualifier	0.50 0.020 0.060 0.050	mg/L mg/L mg/L mg/L		12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 Prepared	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14 12/26/24 06:05 Analyzed	10 10 10 10 <b>Dil Fac</b>
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese Chromium Silver Method: EPA 200.8 - Metals (ICP/Analyte Arsenic Selenium	Result ND 0.56 ND ND ND  MS) - Total Rec Result ND	Qualifier	RL 0.50 0.020 0.060 0.050 RL 0.0050	mg/L mg/L mg/L mg/L mg/L		12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 Prepared 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14 12/26/24 06:05 Analyzed 12/17/24 13:55	
Method: EPA 200.7 Rev 4.4 - Meta Analyte Iron Manganese	Result ND 0.56 ND ND WS) - Total Rec Result ND 0.020	Qualifier	RL 0.50 0.020 0.060 0.050 RL 0.0050	mg/L mg/L mg/L mg/L mg/L		12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 12/16/24 09:00 Prepared 12/16/24 09:00	12/19/24 14:14 12/19/24 14:14 12/19/24 14:14 12/26/24 06:05 Analyzed 12/17/24 13:55	10 10 10 10 <b>Dil Fac</b>

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Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-3

Date Collected: 12/10/24 13:34 Date Received: 12/12/24 07:45 Job ID: 885-16875-1

**Lab Sample ID: 885-16875-3** 

Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			12/20/24 18:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		-		12/20/24 18:44	1
4-Bromofluorobenzene (Surr)	99		70 - 130				12/20/24 18:44	1
Dibromofluoromethane (Surr)	104		70 - 130				12/20/24 18:44	1
Toluene-d8 (Surr)	98		70 - 130				12/20/24 18:44	1

Method: EPA 300.0 - Anions, Ion C	hromatography						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8000	500	mg/L			12/13/24 19:08	1000
Sulfate	2000	50	mg/L			12/12/24 16:18	100

Analyte	Result Q	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND ND	0.50	mg/L		12/16/24 09:00	12/19/24 14:16	10
Manganese	ND	0.010	mg/L		12/16/24 09:00	12/17/24 16:52	5
Chromium	ND	0.030	mg/L		12/16/24 09:00	12/17/24 16:52	5
Silver	ND	0.050	mg/L		12/16/24 09:00	12/26/24 06:07	10

Method: EPA 200.8 - Metals (ICP/MS	S) - Total Recov	verable erable					
Analyte	Result Qu	ıalifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0050	0.0050	mg/L		12/16/24 09:00	12/17/24 14:07	10
Selenium	0.023	0.010	mg/L		12/16/24 09:00	12/17/24 14:07	10

	General Chemistry								
	Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Į	Total Dissolved Solids (SM 2540C)	17000 E		50	mg/L			12/17/24 10:06	1

Eurofins Albuquerque

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Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-4 Date Collected: 12/10/24 14:11

Date Received: 12/12/24 07:45

Lab Sample ID: 885-16875-4

**Matrix: Water** 

Job ID: 885-16875-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			12/20/24 19:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		-		12/20/24 19:57	1
4-Bromofluorobenzene (Surr)	95		70 - 130				12/20/24 19:57	1
Dibromofluoromethane (Surr)	99		70 - 130				12/20/24 19:57	1
Toluene-d8 (Surr)	95		70 - 130				12/20/24 19:57	1

Method: EPA 300.0 - Anions, Ion Chromatography								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2600		100	mg/L			12/13/24 19:18	200
Sulfate	2200		50	mg/L			12/12/24 17:02	100

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.50	mg/L		12/16/24 09:00	12/19/24 14:18	10
Manganese	0.080		0.010	mg/L		12/16/24 09:00	12/17/24 16:56	5
Chromium	ND		0.030	mg/L		12/16/24 09:00	12/17/24 16:56	5
Silver	ND		0.050	mg/L		12/16/24 09:00	12/26/24 06:09	10

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable Result Qualifier Dil Fac Analyte RL Unit D Prepared Analyzed ND 0.0050 Arsenic mg/L 12/16/24 09:00 12/17/24 14:09 0.022 0.010 12/16/24 09:00 Selenium mg/L

12/17/24 14:09 10

General	Chemistry
Analyte	

Result Qualifier RLUnit Prepared Analyzed Dil Fac Total Dissolved Solids (SM 2540C) 7400 E 100 mg/L 12/17/24 10:06

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

**Client Sample ID: TRIP BLANK** 

Date Collected: 12/10/24 00:00 Date Received: 12/12/24 07:45

Lab Sample ID: 885-16875-5

Matrix: Water

Job ID: 885-16875-1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			12/20/24 20:22	1
Ethylbenzene	ND		1.0	ug/L			12/20/24 20:22	1
Toluene	ND		1.0	ug/L			12/20/24 20:22	1
Xylenes, Total	ND		1.5	ug/L			12/20/24 20:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		-		12/20/24 20:22	1
4-Bromofluorobenzene (Surr)	96		70 - 130				12/20/24 20:22	1
Dibromofluoromethane (Surr)	99		70 - 130				12/20/24 20:22	1
Toluene-d8 (Surr)	96		70 - 130				12/20/24 20:22	1

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Project/Site: Williams Pit

Job ID: 885-16875-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-17902/6

**Matrix: Water** 

Analysis Batch: 17902

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

LCS LCS

21.2

Result Qualifier

ug/L

MB MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene ND 1.0 ug/L 12/17/24 11:42

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		12/17/24 11:42	1
4-Bromofluorobenzene (Surr)	96		70 - 130		12/17/24 11:42	1
Dibromofluoromethane (Surr)	101		70 - 130		12/17/24 11:42	1
Toluene-d8 (Surr)	98		70 - 130		12/17/24 11:42	1
	Dibromofluoromethane (Surr)	Dibromofluoromethane (Surr) 101	Dibromofluoromethane (Surr) 101	Dibromofluoromethane (Surr) 101 70 - 130	Dibromofluoromethane (Surr) 101 70 - 130	Dibromofluoromethane (Surr)         101         70 - 130         12/17/24 11:42

Spike

Added

20.1

Lab Sample ID: LCS 885-17902/5

**Matrix: Water** 

Analyte

Benzene

**Analysis Batch: 17902** 

**Client Sample ID: Lab Control Sample** 

70 - 130

Prep Type: Total/NA

%Rec Unit %Rec Limits D 105

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: MB 885-18251/6

**Matrix: Water** 

**Analysis Batch: 18251** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene ND 1.0 ug/L 12/20/24 15:48 ND 12/20/24 15:48 Ethylbenzene 1.0 ug/L ND ug/L 12/20/24 15:48 Toluene 1.0 ND 12/20/24 15:48 1.5 ug/L Xylenes, Total

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130	_		12/20/24 15:48	1
4-Bromofluorobenzene (Surr)	98		70 - 130			12/20/24 15:48	1
Dibromofluoromethane (Surr)	102		70 - 130			12/20/24 15:48	1
Toluene-d8 (Surr)	98		70 - 130			12/20/24 15:48	1

Spike

Added

20.1

20.2

LCS LCS

19.5

19.9

Result Qualifier

Unit

ug/L

ug/L

Lab Sample ID: LCS 885-18251/5

**Matrix: Water** 

Analyte

Benzene

Toluene

Analysis Batch: 18251

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

%Rec %Rec Limits 97 70 - 130

70 - 130

99

LCS LCS

%Recovery Qualifier Limits Surrogate 70 - 130 1,2-Dichloroethane-d4 (Surr) 106

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## QC Sample Results

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-16875-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 885-18251/5

**Matrix: Water** 

Analysis Batch: 18251

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 98 70 - 130 Dibromofluoromethane (Surr) 96 70 - 130 Toluene-d8 (Surr) 98 70 - 130

Lab Sample ID: 885-16875-3 MS Client Sample ID: MW-3 **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 18251** 

Sample Sample Spike MS MS %Rec Result Qualifier Limits Analyte Added Result Qualifier %Rec Unit Benzene ND 20.1 20.3 ug/L 101 70 - 130 ND Toluene 20.2 20.2 ug/L 100 70 - 130

MS MS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 105 70 - 130 70 - 130 99 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) 102 70 - 130 97 70 - 130 Toluene-d8 (Surr)

Client Sample ID: MW-3 Lab Sample ID: 885-16875-3 MSD Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 18251

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	ND		20.1	20.0		ug/L		99	70 - 130	2	20	
Toluene	ND		20.2	19.9		ug/L		99	70 - 130	1	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
Toluene-d8 (Surr)	98		70 - 130

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-17579/4 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17579** 

	MB MB						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND ND	0.50	mg/L			12/12/24 07:46	1
Sulfate	ND	0.50	mg/L			12/12/24 07:46	1

Lab Sample ID: MB 885-17579/51 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17579** 

MB MB Analyte Result Qualifier RL D Unit Prepared Analyzed Chloride 0.50 12/12/24 16:29 ND mg/L

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Dil Fac

Project/Site: Williams Pit

Job ID: 885-16875-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

MB MB

Lab Sample ID: MB 885-17579/51 **Matrix: Water** 

**Analysis Batch: 17579** 

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

Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Sulfate ND 0.50 12/12/24 16:29 mg/L

Lab Sample ID: LCS 885-17579/5 Client Sample ID: Lab Control Sample

**Matrix: Water** 

Prep Type: Total/NA

**Analysis Batch: 17579** 

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit Limits D %Rec Chloride 5.00 4.95 mg/L 99 90 - 110 10.0 9.86 Sulfate mg/L 99 90 - 110

Lab Sample ID: LCS 885-17579/52 Client Sample ID: Lab Control Sample

**Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 17579** 

LCS LCS Spike %Rec Added Result Analyte Qualifier Unit D %Rec Limits Chloride 5.00 4.84 97 90 - 110 mg/L Sulfate 10.0 9.60 mg/L 96 90 - 110

Lab Sample ID: MRL 885-17579/3 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17579** 

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 0.500 0.518 50 - 150 mg/L 104 0.500 Sulfate 0.524 105 50 - 150 mg/L

Lab Sample ID: MB 885-17697/32 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17697** 

MB MB

Analyte	Result C	Qualifier	RL	ι	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	r	mg/L			12/13/24 13:37	1
Sulfate	ND		0.50	ŗ	mg/L			12/13/24 13:37	1

Lab Sample ID: MB 885-17697/61 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17697** 

мв мв Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 0.50 Chloride ND mg/L 12/13/24 18:37 Sulfate ND 0.50 mg/L 12/13/24 18:37

Lab Sample ID: LCS 885-17697/33 **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

Prep Type: Total/NA

**Analysis Batch: 17697** 

_	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	5.00	4.87	-	mg/L		97	90 - 110	 	_
Sulfate	10.0	9.74		ma/L		97	90 - 110		

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Project/Site: Williams Pit

Job ID: 885-16875-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-17697/62

**Matrix: Water** 

Analysis Batch: 17697

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

Spike LCS LCS %Rec Analyte babbA Result Qualifier %Rec Limits Unit Chloride 5.00 4.94 mg/L 99 90 - 110 Sulfate 10.0 9.86 mg/L 99 90 - 110

Lab Sample ID: MRL 885-17697/3

**Matrix: Water** 

**Analysis Batch: 17697** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	0.500	0.528		mg/L	_	106	50 - 150	
Sulfate	0.500	0.518		mg/L		104	50 - 150	

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MRL 885-18001/14

**Matrix: Water** 

Analysis Batch: 18001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.0200	0.0215	J	mg/L		108	50 - 150	
Manganese	0.00200	0.00237		mg/L		118	50 - 150	
Chromium	0.00600	0.00692		mg/L		115	50 - 150	
Silver	0.00500	0.00549		mg/L		110	50 - 150	

Lab Sample ID: MRL 885-18187/42

**Matrix: Water** 

**Analysis Batch: 18187** 

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

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Iron	0.0200	0.0192	J	mg/L		96	50 - 150	
Manganese	0.00200	0.00198	J	mg/L		99	50 - 150	
Chromium	0.00600	0.00606		mg/L		101	50 - 150	

Lab Sample ID: MRL 885-18454/26

**Matrix: Water** 

Analysis Batch: 18454

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

		Spike	MRL	MRL				%Rec
l	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
	Iron	0.0200	0.0205	J	mg/L		102	50 - 150
	Manganese	0.00200	0.00208		mg/L		104	50 - 150
	Chromium	0.00600	0.00609		mg/L		101	50 - 150
	Silver	0.00500	0.00332	J	mg/L		66	50 - 150

Lab Sample ID: MB 885-17808/1-A

**Matrix: Water** 

**Analysis Batch: 18001** 

Client Sample ID: Method Blank **Prep Type: Total Recoverable** Prep Batch: 17808

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Iron ND 0.050 mg/L 12/16/24 09:00 12/17/24 12:48 12/17/24 12:48 ND 0.0020 12/16/24 09:00 Manganese mg/L Chromium ND 0.0060 12/16/24 09:00 12/17/24 12:48 mg/L

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Project/Site: Williams Pit

Job ID: 885-16875-1

# Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 885-17808/1-A

**Matrix: Water** 

Analysis Batch: 18001

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

Prep Batch: 17808

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Silver ND 0.0050 12/16/24 09:00 12/17/24 12:48 mg/L

Lab Sample ID: LCS 885-17808/6-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** 

Analysis Batch: 18001								Prep Batch: 17808				
	Spike	LCS	LCS				%Rec					
Analyte	Added	Result	Qualifier U	Init	D	%Rec	Limits					
Iron	0.500	0.523	m	ng/L		105	85 - 115					
Manganese	0.500	0.506	m	ng/L		101	85 - 115					
Chromium	0.500	0.507	m	ng/L		101	85 - 115					
Silver	0.100	0.0877	n	ng/l		88	85 - 115					

Lab Sample ID: LLCS 885-17808/5-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Prep Batch: 17808

**Analysis Batch: 18001** 

LLCS LLCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Iron 0.0200 0.0218 J 109 50 - 150 mg/L Manganese 0.00200 0.00202 mg/L 101 50 - 150 Chromium 0.00600 0.00634 mg/L 106 50 - 150 0.00500 Silver 0.00513 mg/L 103 50 - 150

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MRL 885-17999/37 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 17999** 

•	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Selenium	0.00100	0.000929	J	ma/l		93	50 - 150

Lab Sample ID: MRL 885-17999/38 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 17999** 

	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	 0.000500	0.000491	J	mg/L		98	50 - 150	

Lab Sample ID: MRL 885-18000/10 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 18000** 

_		Spike	MRL	MRL					%Rec	
Analyte		Added	Result	Qualifier	Unit	ı	D	%Rec	Limits	
Arsenic	 	0.000500	0.000512		mg/L			102	50 - 150	

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Project/Site: Williams Pit

MB MB

Job ID: 885-16875-1

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-18000/9

**Matrix: Water** 

**Analysis Batch: 18000** 

Time Join Date							
	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Selenium	 0.00100	0.00117		mg/L		117	50 - 150

Lab Sample ID: MB 885-17808/1-A

**Matrix: Water** 

**Analysis Batch: 17999** 

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

Prep Batch: 17808

Qualifier Analyte Result RL Unit D Prepared Analyzed Dil Fac Arsenic ND 0.00050 mg/L 12/16/24 09:00 12/17/24 12:16 ND 0.0010 12/16/24 09:00 12/17/24 12:16 Selenium mg/L

Lab Sample ID: LCS 885-17808/4-A

**Matrix: Water** 

**Analysis Batch: 17999** 

**Client Sample ID: Lab Control Sample Prep Type: Total Recoverable** 

Prep Batch: 17808

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits 0.0250 0.0240 Arsenic 96 mg/L 85 - 115 0.0250 Selenium 0.0220 mg/L 88 85 - 115

Lab Sample ID: LLCS 885-17808/2-A

**Matrix: Water** 

**Analysis Batch: 18000** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total Recoverable** 

Prep Batch: 17808

Spike LLCS LLCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Arsenic 0.00100 0.00114 mg/L 114 50 - 150 Selenium 0.00100 0.00112 mg/L 112 50 - 150

Method: 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 885-17913/1

**Matrix: Water** 

**Analysis Batch: 17913** 

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

80 - 120

101

Prep Type: Total/NA

MB MB

Qualifier Analyte Result RL Unit Prepared Analyzed Dil Fac 50 **Total Dissolved Solids** ND mg/L 12/17/24 10:06

Lab Sample ID: LCS 885-17913/2

Matrix: Water

Total Dissolved Solids

Matrix. Water						Frep Type.	TOTAL/INA
Analysis Batch: 17913							
	Spike	LCS LCS				%Rec	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	

1010

mg/L

1000

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# **QC Association Summary**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-16875-1

## **GC/MS VOA**

## Analysis Batch: 17902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total/NA	Water	8260B	
885-16875-2	MW-2	Total/NA	Water	8260B	
MB 885-17902/6	Method Blank	Total/NA	Water	8260B	
LCS 885-17902/5	Lab Control Sample	Total/NA	Water	8260B	

## Analysis Batch: 18251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-3	MW-3	Total/NA	Water	8260B	
885-16875-4	MW-4	Total/NA	Water	8260B	
885-16875-5	TRIP BLANK	Total/NA	Water	8260B	
MB 885-18251/6	Method Blank	Total/NA	Water	8260B	
LCS 885-18251/5	Lab Control Sample	Total/NA	Water	8260B	
885-16875-3 MS	MW-3	Total/NA	Water	8260B	
885-16875-3 MSD	MW-3	Total/NA	Water	8260B	

## HPLC/IC

## Analysis Batch: 17579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
885-16875-1	MW-1	Total/NA	Water	300.0	
885-16875-2	MW-2	Total/NA	Water	300.0	
885-16875-3	MW-3	Total/NA	Water	300.0	
885-16875-4	MW-4	Total/NA	Water	300.0	
MB 885-17579/4	Method Blank	Total/NA	Water	300.0	
MB 885-17579/51	Method Blank	Total/NA	Water	300.0	
LCS 885-17579/5	Lab Control Sample	Total/NA	Water	300.0	
LCS 885-17579/52	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-17579/3	Lab Control Sample	Total/NA	Water	300.0	

## Analysis Batch: 17697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
885-16875-1	MW-1	Total/NA	Water	300.0	
885-16875-2	MW-2	Total/NA	Water	300.0	
885-16875-3	MW-3	Total/NA	Water	300.0	
885-16875-4	MW-4	Total/NA	Water	300.0	
MB 885-17697/32	Method Blank	Total/NA	Water	300.0	
MB 885-17697/61	Method Blank	Total/NA	Water	300.0	
LCS 885-17697/33	Lab Control Sample	Total/NA	Water	300.0	
LCS 885-17697/62	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-17697/3	Lab Control Sample	Total/NA	Water	300.0	

#### **Metals**

## Prep Batch: 17808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total Recoverable	Water	200.2	
885-16875-2	MW-2	Total Recoverable	Water	200.2	
885-16875-3	MW-3	Total Recoverable	Water	200.2	
885-16875-4	MW-4	Total Recoverable	Water	200.2	
MB 885-17808/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 885-17808/4-A	Lab Control Sample	Total Recoverable	Water	200.2	
LCS 885-17808/6-A	Lab Control Sample	Total Recoverable	Water	200.2	

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# **QC Association Summary**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-16875-1

# **Metals (Continued)**

## Prep Batch: 17808 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 885-17808/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
LLCS 885-17808/5-A	Lab Control Sample	Total Recoverable	Water	200.2	

#### **Analysis Batch: 17999**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total Recoverable	Water	200.8	17808
885-16875-2	MW-2	Total Recoverable	Water	200.8	17808
885-16875-3	MW-3	Total Recoverable	Water	200.8	17808
885-16875-4	MW-4	Total Recoverable	Water	200.8	17808
MB 885-17808/1-A	Method Blank	Total Recoverable	Water	200.8	17808
LCS 885-17808/4-A	Lab Control Sample	Total Recoverable	Water	200.8	17808
MRL 885-17999/37	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-17999/38	Lab Control Sample	Total/NA	Water	200.8	

## Analysis Batch: 18000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 885-17808/2-A	Lab Control Sample	Total Recoverable	Water	200.8	17808
MRL 885-18000/10	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-18000/9	Lab Control Sample	Total/NA	Water	200.8	

## **Analysis Batch: 18001**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-3	MW-3	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-4	MW-4	Total Recoverable	Water	200.7 Rev 4.4	17808
MB 885-17808/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	17808
LCS 885-17808/6-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	17808
LLCS 885-17808/5-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	17808
MRL 885-18001/14	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

#### **Analysis Batch: 18187**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-2	MW-2	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-3	MW-3	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-4	MW-4	Total Recoverable	Water	200.7 Rev 4.4	17808
MRL 885-18187/42	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

#### Analysis Batch: 18454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-2	MW-2	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-3	MW-3	Total Recoverable	Water	200.7 Rev 4.4	17808
885-16875-4	MW-4	Total Recoverable	Water	200.7 Rev 4.4	17808
MRL 885-18454/26	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

## **General Chemistry**

## **Analysis Batch: 17913**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-1	MW-1	Total/NA	Water	2540C	
885-16875-2	MW-2	Total/NA	Water	2540C	

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# **QC Association Summary**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Job ID: 885-16875-1

# **General Chemistry (Continued)**

## **Analysis Batch: 17913 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16875-3	MW-3	Total/NA	Water	2540C	
885-16875-4	MW-4	Total/NA	Water	2540C	
MB 885-17913/1	Method Blank	Total/NA	Water	2540C	
LCS 885-17913/2	Lab Control Sample	Total/NA	Water	2540C	

1

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## **Lab Chronicle**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

**Client Sample ID: MW-1** 

Date Collected: 12/10/24 14:48 Date Received: 12/12/24 07:45 Lab Sample ID: 885-16875-1

Matrix: Water

Job ID: 885-16875-1

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B			17902	RA	EET ALB	12/17/24 21:30
Total/NA	Analysis	300.0		100	17579	EH	EET ALB	12/12/24 15:11
Total/NA	Analysis	300.0		1000	17697	EH	EET ALB	12/13/24 18:06
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18187	JR	EET ALB	12/19/24 14:13
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18454	VP	EET ALB	12/26/24 06:03
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.8		10	17999	BV	EET ALB	12/17/24 13:52
Total/NA	Analysis	2540C		1	17913	DL	EET ALB	12/17/24 10:06

Lab Sample ID: 885-16875-2 **Client Sample ID: MW-2** 

Date Collected: 12/10/24 15:27

Date Received: 12/12/24 07:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B	<del></del> -	1	17902	RA	EET ALB	12/17/24 21:54
Total/NA	Analysis	300.0		100	17579	EH	EET ALB	12/12/24 15:33
Total/NA	Analysis	300.0		500	17697	EH	EET ALB	12/13/24 18:58
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18187	JR	EET ALB	12/19/24 14:14
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18454	VP	EET ALB	12/26/24 06:05
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.8		10	17999	BV	EET ALB	12/17/24 13:55
Total/NA	Analysis	2540C		1	17913	DL	EET ALB	12/17/24 10:06

**Client Sample ID: MW-3** Lab Sample ID: 885-16875-3 Date Collected: 12/10/24 13:34

Date Received: 12/12/24 07:45

Released to Imaging: 5/6/2025 1:16:39 PM

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	18251	СМ	EET ALB	12/20/24 18:44
Total/NA	Analysis	300.0		100	17579	EH	EET ALB	12/12/24 16:18
Total/NA	Analysis	300.0		1000	17697	EH	EET ALB	12/13/24 19:08
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		5	18001	JR	EET ALB	12/17/24 16:52
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18187	JR	EET ALB	12/19/24 14:16
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18454	VP	EET ALB	12/26/24 06:07
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.8		10	17999	BV	EET ALB	12/17/24 14:07
Total/NA	Analysis	2540C		1	17913	DL	EET ALB	12/17/24 10:06

Eurofins Albuquerque

Matrix: Water

Matrix: Water

## **Lab Chronicle**

Client: Ranger Environmental Services, Inc

Project/Site: Williams Pit

Client Sample ID: MW-4

Lab Sample ID: 885-16875-4

Matrix: Water

Job ID: 885-16875-1

Date Collected: 12/10/24 14:11 Date Received: 12/12/24 07:45

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	18251	СМ	EET ALB	12/20/24 19:57
Total/NA	Analysis	300.0		100	17579	EH	EET ALB	12/12/24 17:02
Total/NA	Analysis	300.0		200	17697	EH	EET ALB	12/13/24 19:18
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		5	18001	JR	EET ALB	12/17/24 16:56
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18187	JR	EET ALB	12/19/24 14:18
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.7 Rev 4.4		10	18454	VP	EET ALB	12/26/24 06:09
Total Recoverable	Prep	200.2			17808	JE	EET ALB	12/16/24 09:00
Total Recoverable	Analysis	200.8		10	17999	BV	EET ALB	12/17/24 14:09
Total/NA	Analysis	2540C		1	17913	DL	EET ALB	12/17/24 10:06

**Client Sample ID: TRIP BLANK** 

Date Collected: 12/10/24 00:00

Date Received: 12/12/24 07:45

**Lab Sample ID: 885-16875-5** 

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8260B		1	18251	СМ	EET ALB	12/20/24 20:22

#### Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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# **Accreditation/Certification Summary**

Client: Ranger Environmental Services, Inc Job ID: 885-16875-1

Project/Site: Williams Pit

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

	Authority	Program	Identification Number	Expiration Date
ı	Oregon	NELAP	NM100001	02-25-25

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PAGE OF A

9 10

885-16875 COC BOTTLE SETT: 3x 4002 MCL WAS, ix SOOML LUDRESURED PLASTIC, **ANALYSIS LABORATORY** HALL ENVIRONMENTAL If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report. 4901 Hawkins NE - Albuquerque, NM 87109 Fax 505-345-4107 **Analysis Request** Remarks: Bill to EOG Attn Chase Setlle + 1 × 125 MC ANOS DUSTIC Tel. 505-345-3975 ATTACALO 1537 SEE X Chloride (EPA 300) TPH:8015D(GRO / DRO / MRO) (1508) X3T8 1153 Time Time HEAL No. J. MORTENEZ X Rush Eos Tar 50 18/11/60 3 :3 100rth 12/24 Date 20 Project Manager: W. Kierdorf Preservative SEE NOTES HULTEE Sampler: W. KEEROOF Cooler Temp(including:CF): WELLEAMS PET 4°88 Type Turn-Around Time: ζiä: Project #: 5375 Project Name: 2x ACL VOR □ Standard # of Coolers: Type and # SEE MIRS Received by: Container Received by On Ice: Mailing Address: EOG - 5509 Champions Drive, Midland TX, 79706 Level 4 (Full Validation) Chain-c.-Custody Record Sample Name BLANK ナートと カアーダ mw -3 1-~1 Ranger: PO Box 201179, Austin TX 78720 email or Fax#: Will@RangerEnv.com Tasp Client: EOG-Artesia / Ranger Env. □ Az Compliance Relinquished by: Relinquished by: □ Other Matrix Phone #: 521-335-1785 Excel BA Date Time of the state of the s 1900 QA/QC Package: ■ EDD (Type) 1334 Accreditation: (537 1153 ニナニ ■ Standard Time: Time: ■ NELAC 五三 Date:

Williams Pit Analysis Request

- Arsenic
- Benzene
- Chloride
- Chromium
- Iron
- Manganese
- Selenium
- Silver
- Sulfate
- **Total Dissolved Solids**

12/30/2024

# **Login Sample Receipt Checklist**

Client: Ranger Environmental Services, Inc Job Number: 885-16875-1

Login Number: 16875 List Source: Eurofins Albuquerque

List Number: 1

Creator: McQuiston, Steven

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Page 25 of 25

**Eurofins Albuquerque** 

## Subject: Groundwater Sampling Notification NAUTOFAB000741



James Kennedy < James\_Kennedy@eogresources.com>

to Velez, Nelson, EMNRD, michael.buchanan@emnrd.nm.gov, Chase Settle 🔻

You are viewing an attached message. Rangerenv.com Mail can't verify the authenticity of attached messages.

Mr. Velez/ Mr. Buchanan,

Please find attached the groundwater sampling notification for the above referenced site. The sampling notification has also been uploaded to the NMOCD Portal System. Samplir annual groundwater report uploaded to the NMOCD Portal in April 2024. If you have any questions or concerns, please contact myself or Chase Settle.

Regards,

James

#### James F. Kennedy

Environmental Supervisor Midland Division C: 432-258-4346 O: 432-848-9146



One attachment • Scanned by Gmail (i)



## Subject: RE: [EXTERNAL] Groundwater Sampling Notification NAUTOFAB000741



Buchanan, Michael, EMNRD < Michael. Buchanan@emnrd.nm.gov>

to James Kennedy, Velez, Nelson, EMNRD, Chase Settle 🔻

You are viewing an attached message. Rangerenv.com Mail can't verify the authenticity of attached messages.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning, James

Thank you for providing the groundwater sampling notification for the four (4) pits: Williams, Scripps, Lattion and Inex. These notifications will be accepted as part of the record. Regards,

Mike Buchanan

From: James Kennedy < James Kennedy@eogresources.com >

Sent: Wednesday, April 24, 2024 9:28 AM

 $\textbf{To:} \ \ Velez, \ Nelson, \ EMNRD < \underline{Nelson. Velez@emnrd.nm.gov} >; \ Buchanan, \ Michael, \ EMNRD < \underline{Michael. Buchanan@emnrd.nm.gov} >; \ All \$ 

Cc: Chase Settle < Chase Settle@eogresources.com >

Subject: [EXTERNAL] Groundwater Sampling Notification NAUTOFAB000741

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mr. Velez/ Mr. Buchanan,

Please find attached the groundwater sampling notification for the above referenced site. The sampling notification has also been uploaded to the NMOCD Portal System. Sampling annual groundwater report uploaded to the NMOCD Portal in April 2024. If you have any questions or concerns, please contact myself or Chase Settle.

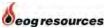
Regards,

James

#### James F. Kennedy

Environmental Supervisor Midland Division C: 432-258-4346

O: 432-848-9146





James Kennedy «James\_Kennedy@eogresources.com» to Velez, Nelson, EMNRD, Buchanan, Michael, EMNRD, Chase Settle ▼ Thu, Sep 12, 2:19 PM (23 hours ago)

Mr. Velez/ Mr. Buchanan,

Please find attached the groundwater sampling notification for the above referenced site. The sampling notification has also been uploaded to the NMOCD Portal System. Sampling will be conducted in accordance with the protocols referenced in the annual groundwater report uploaded to the NMOCD Portal in April 2024. If you have any questions or concerns, please contact myself or Chase Settle.

Regards,

James

#### James F. Kennedy

Environmental Supervisor Midland Division C: 432-258-4346 O: 432-848-9146



One attachment · Scanned by Gmail ①





# Subject: Groundwater Sample Notice nAUTOFAB000741 (Williams)



James Kennedy <James\_Kennedy@eogresources.com> to Buchanan, Michael, EMNRD, Chase Settle ▼

3:34 PM (34 minutes ag

Mr. Buchanan,

Please find attached the groundwater sampling notification for the above referenced site. The sampling notification has also been uploaded to the NMOCD Portal System. Sampling will be conducted in accordance with the protocols referenced in the annual groundwater report uploaded t the NMOCD Portal in April 2024. If you have any questions or concerns, please contact myself or Chase Settle.

Regards,

**James** 

## James F. Kennedy

Environmental Supervisor Midland Division

C: 432-258-4346

O: 432-848-9146



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Site Name	Williams Pit
Location	F-25-18S-26E; Eddy County, NM
Incident ID	NAUTOFAB000741
Source & Description of Activities	Groundwater Sampling
Expected Duration for Activities	Week of 12/09/2024
Env Consultant	Ranger Environmental Services, LLC
	Yes - Starting Tuesday, 12/10/2024 @ 1300
	4 samples
	NMOCD Mr. Mike Buchanan
	(Michael.Buchanan@emnrd.nm.gov)
Sampling Notification Required	
Sample Number	4
Driving Directions	Directions to the site can be provided after an email request
Sampler Information	Chase Settle 575-703-6537 chase_settle@eogresources.com

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 446272

#### **CONDITIONS**

Operator:	OGRID:
EOG RESOURCES INC	7377
5509 Champions Drive	Action Number:
Midland, TX 79706	446272
	Action Type:
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

#### CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2024 Annual Groundwater Monitoring report for Williams Pit is satisfactory and accepted for the incident record. App ID: 446272. Continue to conduct groundwater monitoring as prescribed and scheduled. Additional wells and further delineation are proposed for the Williams Pit, and has been submitted as App ID: 435299. Further characterization for natural background is proposed, and will sample proposed wells for metals, BTEX, TPH, and sulfates. Submit the 2025 Annual Groundwater Report to OCD no later than April 1, 2026.	5/6/2025