State of New Mexico
Oil Conservation Division

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	85 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Barnhill Title: Lead Environmental Specialist - Water

Signature: Date: 02/10/2023

email: ABarnhill@chevron.com Telephone: (432) 940-8524

OCD Only

Received by: Jocelyn Harimon Date: 02/15/2023

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Barnhill Title: Lead Environmental Specialist - Water

Signature: Amy Barnhill Date: 02/10/2023

email: ABarnhill@chevron.com Telephone: (432) 940-8524

OCD Only

Received by: Jocelyn Harimon Date: 02/15/2023

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Jennifer Nobui Date: 02/24/2023

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

January 30, 2023

#ogopogo_env_22

Mark Andersen
Permian Asset HSEQ Manager
TETRA Technologies Inc./Swiftwater Inc.
2401 N. CR 1287 Midland,TX 79701
Phone: 432.234.0179

SUBJECT: Remediation Work Plan for the DL 10 15 OGOPOGO FEDERAL COM #422H Release (nAPP2229333460), Lea County, New Mexico

To whom it may concern,

On behalf of Atkins Engineering Associates INC. (AEA) has prepared this site assessment, delineation and remediation proposal. To properly delineate the release of liquids related to oil and gas production activities at the DL 10 15 OGOPOGO FEDERAL COM #422H AEA used ***Visual Sample Plan Version 6.0*** (VSP) to define a confidence interval and sample plan design. The site is in Unit I, Section 10, Township 22S, Range 33E, Lea County, New Mexico.

Table 1 summarizes release information and Site Criteria.

Table 1: Release Information and Closure Criteria			
Name	DL 10 15 OGOPOGO FEDERAL COM #422H	Company	Chevron U.S.A., Inc
API Number	30-025-49906	Location	32.40448, -103.55576
Incident Number	nAPP2229333460		
Estimated Date of Release	10/16/22	Date Reported to NMOCD	10/16/20
Landowner	State	Reported To	NMOCD District 2
Source of Release	An 8 inch hose failed behind the connection that resulted in a release to land.		
Released Volume	30 bbls	Released Material	Produced Water
Recovered Volume	27 bbls	Net Release	3 bbls
NMOCD Closure Criteria	51-100 feet to groundwater		
AEA Response Dates	N/A		

1.0 Background

On October 16, 2022, a release was discovered at the DL 10 15 OGOPOGO FEDERAL COM #422H. An 8 inch hose failed behind the connection. Through estimated soil saturation calculations, the release volume was estimated by operations staff and confirmed through the attached C141. Initial response activities were conducted by the operator, and included source elimination by means of repair and immediate site stabilization and release recovery. Figure 1 illustrates the vicinity and site location. The C-141 forms are included in Appendix A.

2.0 Site Information and Closure Criteria

The DL 10 15 OGOPOGO FEDERAL COM #422H is located approximately 25 miles West of Eunice Lea County, New Mexico on Federal (BLM) land at an elevation of approximately 3,565 feet above mean sea level (amsl).

Based upon the New Mexico Office of the State Engineers (NMOSE) online water well database, (Appendix B), depth to groundwater in the area is estimated to be 75-280 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the NMOSE database. (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 12/16/2023). The nearest significant watercourse is Floyd Tank, located approximately 3.5 miles North of the location. Figure 1 illustrates the site with 200 and 300 foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of between 51-100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

Electromagnetic surveying was used as a “first-pass” investigation to accurately define the parameters or horizontal boundaries of the shallow soil investigation. A Geonics Ltd. EM-38 ground conductivity meter that has been factory calibrated was used on site to collect data.

Figure 1 attached is a product of the fixed-frequency EM method used to map variations in ground conductivity to identify anomalously conductive soils and infer changes in the soil characteristics and composition. This method used portable instrumentation consisting of a transmitter coil and a receiver coil. primary magnetic field from the transmitter coil induces subsurface eddy currents, which in turn generate a secondary magnetic field that is intercepted by the receiver coil. The ratio of the primary and secondary magnetic fields is related to ground conductivity represented as ECa in mS/m.
The conductivity values are not specific values from discrete depths; they are weighted averages of conductivity between the surface and the depth of exploration of the EM field and are termed “apparent conductivities”. The apparent conductivity values obtained are in units of millisiemens per meter (mS/m). The apparent conductivity (ECa) of the soil has been related to the paste extract conductivity {ECe) by the relationship ECa=5ECa (McNeill, 1986a). Table 2 (from McNeill, 1986a) illustrates this general relationship. Measurements are expressed in millisiemens/meter (mS/m).

Table 1: ECe to ECa Conversion

Soil Conductivity vs Salinity (from McNeill, 1986a)			
Salinity (NRCS)	**ECe (mS/cm) (Lab)**	**ECa (mS/m) (EM-38)**	**Figure Color**
NRCS Soil Background (site)	0-2	0-40	White to green
Slight	0-4	40-80	Yellow
Moderate	4-8	80-100	red
High	8-12	160-240	Purple

The table above shows the general correlation between laboratory soil saturated paste ECe and the apparent conductivity ECa measured by an EM unit.

3.0 Release Characterization and Proposed Remediation Activities

On January 17, 2023, AEA personnel arrived on site in response to the release associated with DL 10 15 OGOPOGO FEDERAL COM #422H. AEA performed site delineation activities on January 17, 2023, by collecting soil samples around the release site selected by VSP program with a systematic sampling with a random start location. Soil samples were field screened for chloride using an electrical conductivity (EC) meter.

A total of twenty-two (22) sample locations (SW1 – SW10 & BH1 – BH4) were investigated using a direct-push drill rig, to depths up to four (4) feet bgs. A minimum of three (3) delineation samples were collected at each soil bore location and field-screened using the method above. A total of twenty-two (22) samples were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

As summarized in Table 3 an shown in figure 3 and 4, results indicated that the release did not flow and or leach of the location. An on-pad area approximately 100 feet wide and 400 feet long remains impacted. The area is located to the south of the wells and runs east and west near the location's entrances. The impacted area is also bordered by a. production flow lines to the north and the locations berm to the south. The effected soils are imported B-horizon from an area caliche pit.

Lab analysis confirmed the field and EM data that delineation locations SB1-SB4 are elevated in chlorides to depths of approximately two (2) foot. Composite Sample locations SW1-SW8 confirmed the horizontal extent of chloride or salt found by the EM survey. Composite Sample locations SW8-SW10 need to be extended due to the Hydrocarbon impacts found.

All samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Envirotech Laboratory in Farmington, New Mexico (Appendix D).

AEA proposes an excavation of fifteen hundred (1500) cubic yards of caliche and native soil to remediate the top four (4) feet of the pad to be compliant with, 19.15.29.13(D)(1) NMAC says "The reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0."

Received by OCD: 2/15/2023 7:47:57 AM

Figure 3 shows the extent of the proposed excavation and existing sample locations. All laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

All contaminated soil from the location will be hauled to a NMOCD approved facility (waste manifest will be available upon request).

As all discovered impacts are on the locations pad this Work Plan does not address or require revegetation or restoration work.

4.0 Variance and Limitations

Atkins Engineering Associates INC. (AEA) request a sample variance request from 19.15.29.D.1.c. The impacts are large in terms of horizontal area but did not substantially leach vertically. All impacts remained on pad and the post data collection activities outlined in EPA's Guidance for Data Quality Assessment (EPA, 2000) via (VSP) show that closure sample collection at the five hundred (500) to eight hundred (800) square foot interval will still achieve the same 98% confidence interval as the standard two hundred square foot sampling plan. For these reasons AEA request a closure sample interval of 500-800 square feet.

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Austin Weyant at (575)626-3993.

Submitted by:
Atkins Engineering Associates INC

J. Austin Weyant

Austin Weyant
Geoscientist

Released to Imaging: 2/24/2023 3:58:05 PM

ATTACHMENTS:

Figures:

Figure 1: EM Conductivity Survey
Figure 2: Surface Water Radius Map
Figure 3: Site and Sample Location Map Encompassing the spill on 10-16-22 (notated by the red line at the bottom of the map) and 10-20-22 Notated by the black lines on the map and covering the original spill on 10-16-22).

Figure 4: Pipeline map

Tables:

Table 2: NMOCD Closure Criteria
Justification Table 3a: Summary of Initial Sample Results

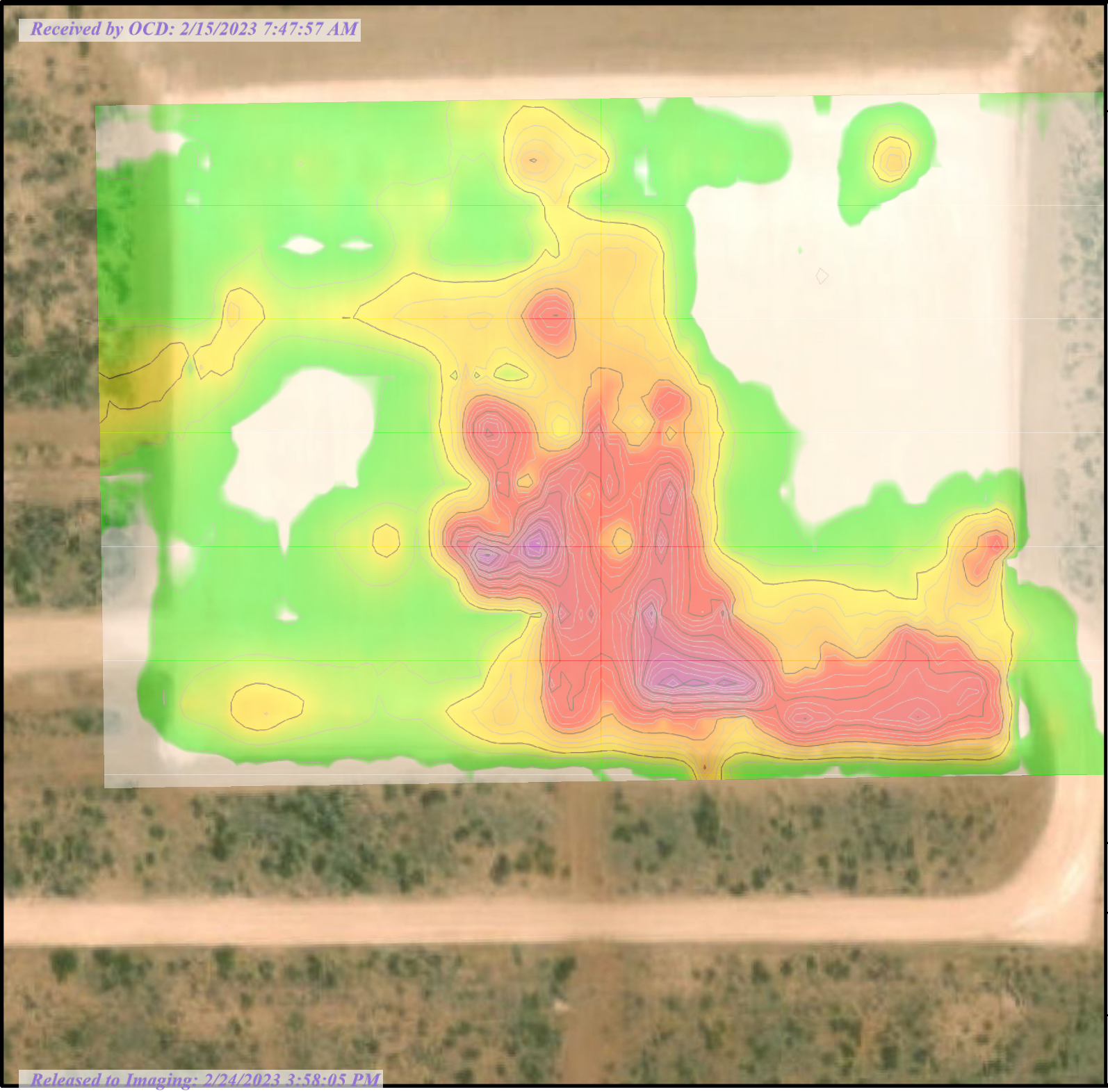
Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report Appendix C: VSP Sampling Protocol Appendix D: Laboratory Analytical Reports

FIGURES

Received by OCD: 2/15/2023 7:47:57 AM

FIGURE 1 EM 38 Lea Ogopogo API 49907 Draft



JOB No. Ogopogo_env_22

DATE FIELD: 12/9/22 DRAWN JAW

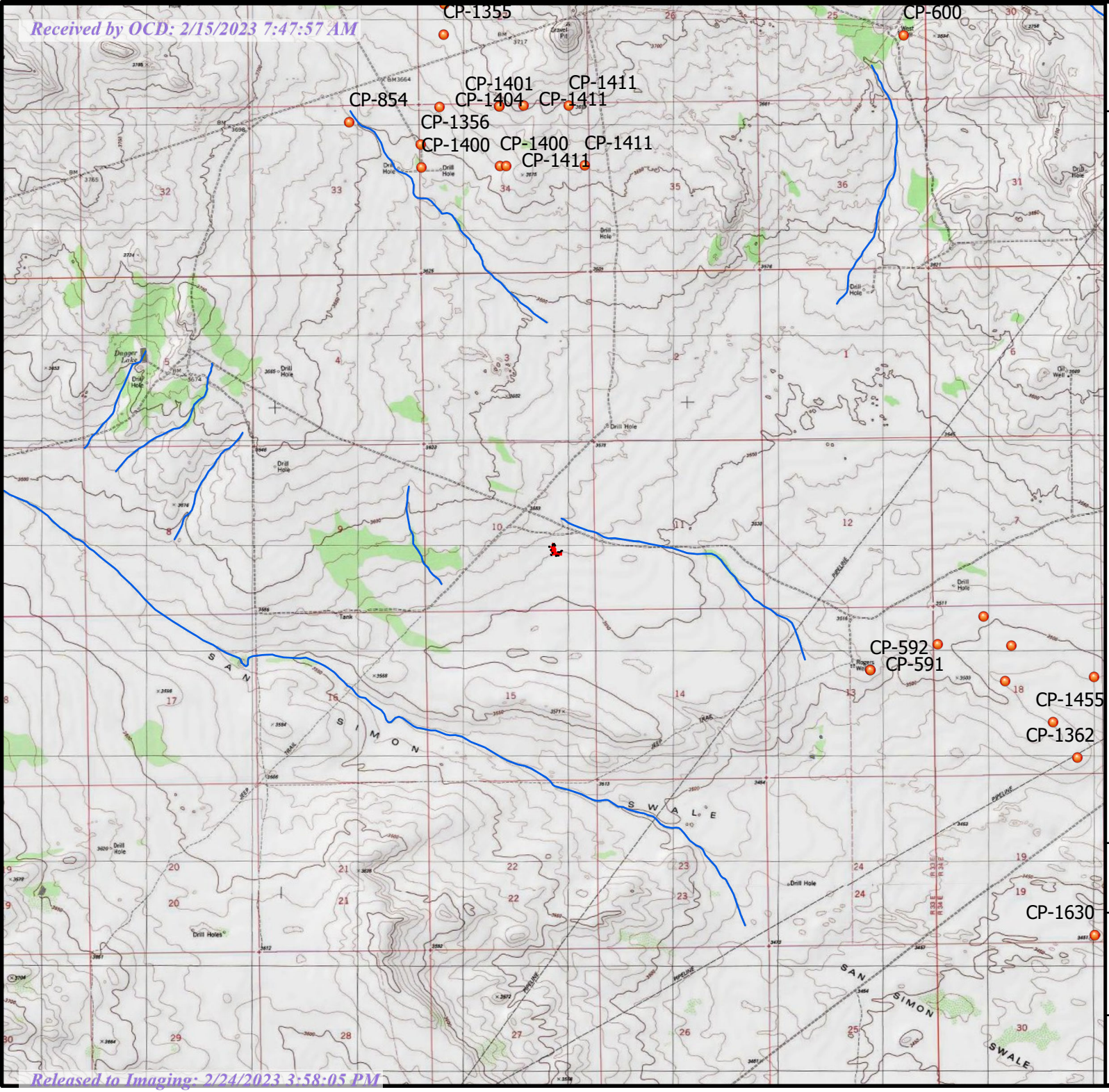
DATE DRAWN: 12/12/2022 REVIEW LCM

Atkins ENGINEERING ASSOCIATES

Released to Imaging: 2/24/2023 3:58:05 PM

Received by OCD: 2/15/2023 7:47:57 AM

FIGURE 2
Ogopogo API 49907
Setback Map



LEGEND

- Apx_Clip
- OSE_PODs
- Lakes_Playas
- Flowlines_SENM
- Springs_Seeps

ECa mS/cm

N

0 2,000 4,000 8,000

Scale: 1:50,000 Feet

JOB No. Ogopogo_env_22

DATE FIELD: 12/9/22 DRAWN JAW

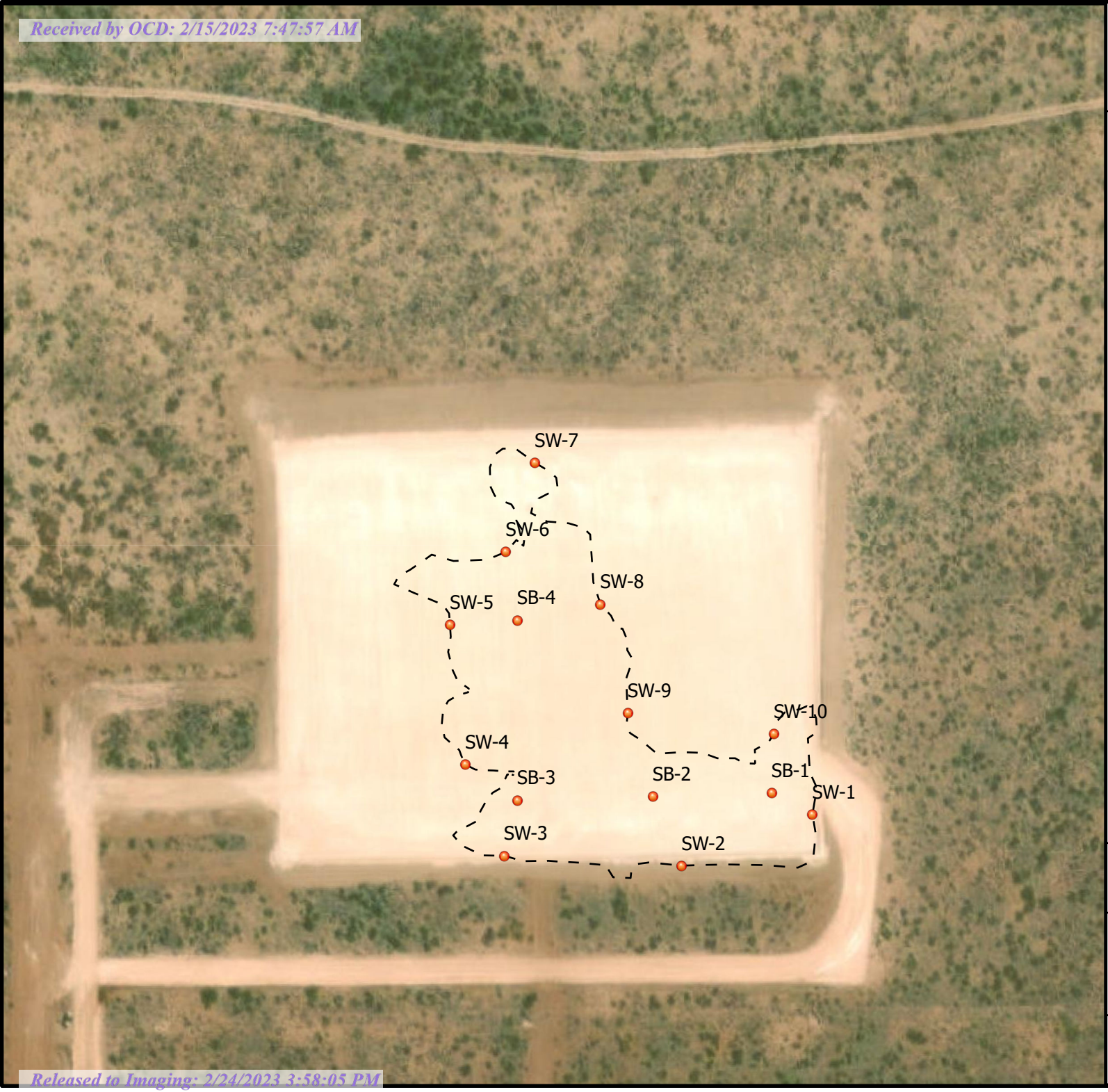
DATE DRAWN: 12/30/2022 REVIEW LCM

Atkins ENGINEERING ASSOCIATES

Released to Imaging: 2/24/2023 3:58:05 PM

Received by OCD: 2/15/2023 7:47:57 AM

FIGURE 3
Ogopogo API 49907
Proposed Sample Location



LEGEND

- Location
- WellGIS
- Apx_Clip

N

0 65 130 260

Scale: 1:1,563 Feet

JOB No. Ogopogo_env_22

DATE FIELD: 12/9/22 DRAWN JAW

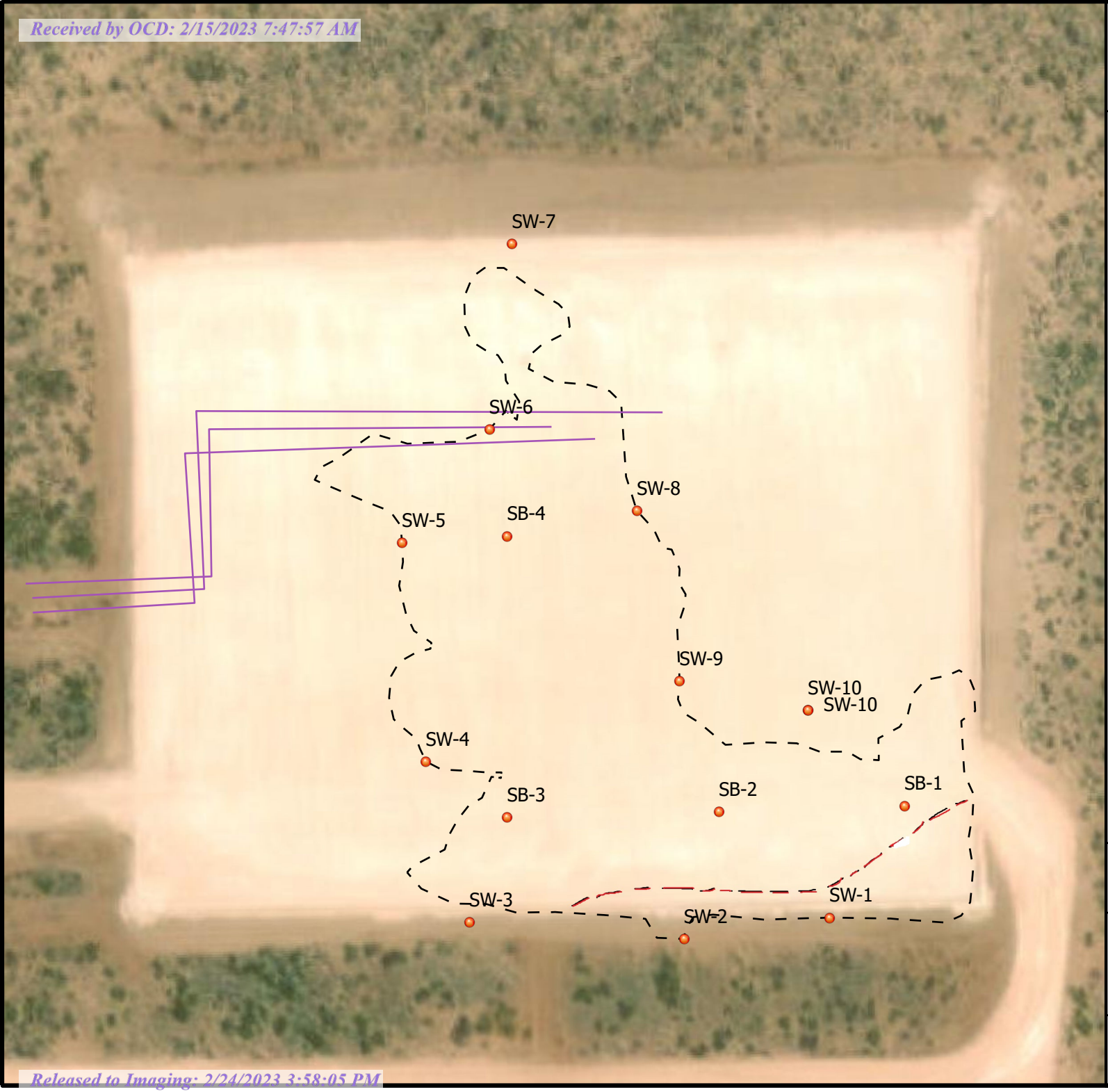
DATE DRAWN: 12/30/2022 REVIEW LCM

Atkins ENGINEERING ASSOCIATES

Released to Imaging: 2/24/2023 3:58:05 PM

Received by OCD: 2/15/2023 7:47:57 AM

FIGURE 4
Ogopogo API 49907
Setback Map



LEGEND

- Apx. Release Area
- Pipeline
- Location

N

0 40 80 160

Scale: 1:1,000 Feet

JOB No. Ogopogo_env_22

DATE FIELD: 12/9/22 DRAWN JAW

DATE DRAWN: 1/26/2023 REVIEW LCM

Atkins ENGINEERING ASSOCIATES

Released to Imaging: 2/24/2023 3:58:05 PM

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	51-100 ft	NMOSE shothole records
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	3.5 miles	USA Topo
Hortizontal Distance to Nearest Significant Watercourse (ft)	3.5 miles	USA Topo

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	**yes or no**	**if yes, then**				
<300' from continuously flowing watercourse or other significant watercourse?	no	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
<1000' from fresh water well or spring?	no					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	no					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
<100' from wetland?	no					
within area overlying a subsurface mine	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

SMA #

Table 3:
Summary of Sample Results

TETRA Technologies Inc./Swiftwater Inc
OGOPOGO FEDERAL COM #422H (nAPP2230526211)

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMED Deleni Criteria				50	10				100	600
SB1 (0-1.5)	1/17/2023	0-1.5	excavate	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	2340
SB1 (2)	1/17/2023	2	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	84.1
SB1 (3)	1/17/2023	3	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	63.9
SB2 (0-1.5)	1/17/2023	0-1.5	excavate	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	5280
SB2 (2)	1/17/2023	2	excavate	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	782
SB2 (3)	1/17/2023	3	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	96
SB3 (0-1.5)	1/17/2023	0-1.5	excavate	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	1650
SB3 (2)	1/17/2023	2	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	112
SB3 (3)	1/17/2023	3	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	78.2
SB4 (0-1.5)	1/17/2023	0-1.5	excavate	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	2220
SB4 (3)	1/17/2023	3	excavate	<0.0250	<0.0251	<20.0	80.5	256	336.5	461
SB4 (4)	1/17/2023	4	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	<20
SW1	1/17/2023	0.5	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	138
SW2	1/17/2023	0.5	in-situ	<0.0250	<0.0251	<20.0	48.2	<50.0	48.2	20.4
SW3	1/17/2023	0.5	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	20.4
SW4	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	634	2240	2874	80.7
SW5	1/17/2023	0.5	in-situ	<0.0250	<0.0251	<20.0	<25.0	<50.0	<95.0	710
SW6	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	160	347	507	156
SW7	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	306	257	563	243
SW8	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	1280	2270	3550	198
SW9	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	1440	2290	3730	632
SW10	1/17/2023	0.5	excavate	<0.0250	<0.0251	<20.0	138	89.3	227.3	823

"--" = Not Analyzed

APPENDIX A
FORMS C141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron U.S.A., Inc.	OGRID: 4323
Contact Name: Jessica Zemen	Contact Telephone: 432-530-9187
Contact email: jessicazemen@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address:6301 Deauville Blvd Midland, TX 79706	

Location of Release Source

Latitude: 32.40448 Longitude: -103.55576
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: DL 10 15 OGOPOGO FEDERAL COM #422H	Site Type: Oil
Date Release Discovered: 10/16/2022	API# *(if applicable):* 30-025-49906

Unit Letter	Section	Township	Range	County
I	10	22S	33E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): 30 bbls	Volume Recovered (bbls): 27 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

An 8” hose failed behind the connection that resulted in a release to land.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was over 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Jessica Zemen sent an email to Mike Bratcher on 10/16/2022 detailing the release information.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____Jessica Zemen_____ Title: _Lead Environmental Specialist, Field Support _____

Signature: Jessica K Zemen Date: ___10/17/2022_____

email: _____jessicazemen@chevron.com _____ Telephone: ____432-530-9187_____

OCD Only

Received by: Jocelyn Harimon Date: 11/01/2022

Incident ID	nAPP2229333460
District RP	
Facility ID	
Application ID	

Spill Calculations:

	Horizontal Dimensions			Vertical Dimensions		Calculated Volume	
	Diameter (feet)	Length (feet)	Width (feet)	Abovegrade Depth (feet)	Belowgrade Depth (feet)	Gallons	Barrels
Area 1	N/A	120	4	0.17	N/A	612.00	14.57
Area 2	N/A	60	18	0.08	N/A	648.00	15.43
					Total Volume =	1260.00	30.00

APPENDIX B
NMOSE WELLS REPORT

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO	OSE FILE NO(S).
CP-1724-POD-1 OGS North		

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Merchant Livestock Company/Glenn's Water Well Service, Inc.	575-398-2424

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 692	Tatum	NM	88267

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	23	44.39	N
	LONGITUDE	-103	31	1.34	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW1/4 NW1/4 NW1/4 Section 18, Township 22 South, Range 34 East on Merchant Livestock Company Land

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/16/19	04/20/19	1,172'	1,172'	800'

COMPLETED WELL IS: [✓] ARTESIAN [ ] DRY HOLE [ ] SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 484'

DRILLING FLUID: [ ] AIR [✓] MUD ADDITIVES – SPECIFY:

DRILLING METHOD: [✓] ROTARY [ ] HAMMER [ ] CABLE TOOL [ ] OTHER – SPECIFY

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	40	20"	ASTM A53 Sch 40 Steel 16" OD	None	15.5	.25	---
0	799	14.75"	API Steel Grade J-55/K-55 10.75" OD	Thread & Collar	10.05	.35	---
752	1,172	9.875"	Steel Casing 8 5/8" / 8.625" OD	Plain End	8.125	.25	1/8"
			(420' Total) Bottom 378 Perforated				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	40'	20"	Cemented	2 yards	Top Pour
0	799'	14.75"	Float and Shoe Cemented to Surface 29 Barrels	325 Sacks Pumped	Circulated

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. CP-1724	POD NO.	TRN NO. 628588
LOCATION 22S.34E.18.113	WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	5	5	Sand	Y ✓ N	
5	30	25	Caliche	Y ✓ N	
30	80	50	Sand & Red Clay	Y ✓ N	
80	450	370	Red Clay	Y ✓ N	
450	510	60	Red Shale	Y ✓ N	
510	580	70	Brown Shale	Y ✓ N	
580	799	219	Brown & Red Shale	Y ✓ N	
799	919	120	Sand Rock	✓ Y N	
919	950	31	Red & Blue Shales Stringers of Sand	✓ Y N	75.00
950	1,140	190	Sand Stone	✓ Y N	
1,140	1,172	32	Red Shale	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☑ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 75.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

0' to 799' drilled with mud.
799' to 1,172' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

5/16/19 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1724-POD-1 OGS North		

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Merchant Livestock Company/Glenn's Water Well Service, Inc.	575-398-2424

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 692	Tatum	NM	88267

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	23	44.39	N
	LONGITUDE	-103	31	1.34	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW1/4 NW1/4 NW1/4 Section 18, Township 22 South, Range 34 East on Merchant Livestock Company Land

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/16/19	04/20/19	1,172'	1,172'	800'

COMPLETED WELL IS: [x] ARTESIAN [ ] DRY HOLE [ ] SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 484'

DRILLING FLUID: [ ] AIR [x] MUD ADDITIVES – SPECIFY:

DRILLING METHOD: [x] ROTARY [ ] HAMMER [ ] CABLE TOOL [ ] OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	40	20"	ASTM A53 Sch 40 Steel 16" OD	None	15.5	.25	---
0	799	14.75"	API Steel Grade J-55/K-55 10.75" OD	Thread & Collar	10.05	.35	---
752	1,172	9.875"	Steel Casing 8 5/8" / 8.625" OD	Plain End	8.125	.25	1/8"
			(420' Total) Bottom 378 Perforated				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	40'	20"	Cemented	2 yards	Top Pour
0	799'	14.75"	Float and Shoe Cemented to Surface 29 Barrels	325 Sacks Pumped	Circulated

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	5	5	Sand	Y ✓ N	
5	30	25	Caliche	Y ✓ N	
30	80	50	Sand & Red Clay	Y ✓ N	
80	450	370	Red Clay	Y ✓ N	
450	510	60	Red Shale	Y ✓ N	
510	580	70	Brown Shale	Y ✓ N	
580	799	219	Brown & Red Shale	Y ✓ N	
799	919	120	Sand Rock	✓ Y N	
919	950	31	Red & Blue Shales Stringers of Sand	✓ Y N	75.00
950	1,140	190	Sand Stone	✓ Y N	
1,140	1,172	32	Red Shale	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:
☐ PUMP ☑ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 75.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

0' to 799' drilled with mud.
799' to 1,172' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

5/16/19 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. CP-024	POD NO. 1	TRN NO. 628588
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (TW-1)		CP-1899

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Marathon Oil	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
4111 S Tidwell Rd.	Carlsbad	NM	88220

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	23	59.07	N
	LONGITUDE	103	35	16.17	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE

SE SE SE Sec. 09 T22S R33E, NMPM

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2/9/2022	2/24/2022	temporary casing	±101	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DATE STATIC MEASURED: 2/24/22, 3/8/2022

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	101	±8.5	Boring	--	--	--	--

OSE DII MAR 11 2022 AM8:47

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.	CP-1899	POD NO.	POD1	TRN NO.	717713
LOCATION	SESESE 8 22S 33E			WELL TAG ID NO.	NA

PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	9	9	Sand, Fine-grained, poorly graded with caliche, Brown	Y ✓ N	
9	19	10	Sand, Fine-grained, poorly graded with caliche, Tan	Y ✓ N	
19	34	15	Sand, Fine-grained, poorly graded with sub-angular gravel, Tan	Y ✓ N	
34	44	10	Sand, Fine-grained, poorly graded, Tan	Y ✓ N	
44	49	5	Sand, Fine-grained, poorly graded with sub-angular gravel, Brown	Y ✓ N	
49	101	52	Clay, with sand ,Dry, Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and he soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips ten feet below ground surface to surface.

OSE DII MAR 11 2022 AM8:51

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 3/10/2022

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. CP-1899	POD NO. POD1	TRN NO. 717713	
LOCATION SESESE 8 22S 33E		WELL TAG ID NO. NA	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 717713
File Nbr: CP 01899
Well File Nbr: CP 01899 POD1

Mar. 22, 2022

MELODIE SANJARI
MARATHON OIL
4111 S TIDWELL RD
CARLSBAD, NM 88220

Greetings:

The above numbered permit was issued in your name on 01/31/2022.

The Well Record was received in this office on 03/11/2022, stating that it had been completed on 02/24/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 01/31/2023.

If you have any questions, please feel free to contact us.

Sincerely,

Megen Telles
(575)622-6521

drywell

APPENDIX C
VSP SAMPLING PROTOCOL

VSP Sample Design Report for Calculating a Two-Sided Confidence Interval for the Population Mean Using Systematic Grid Sampling

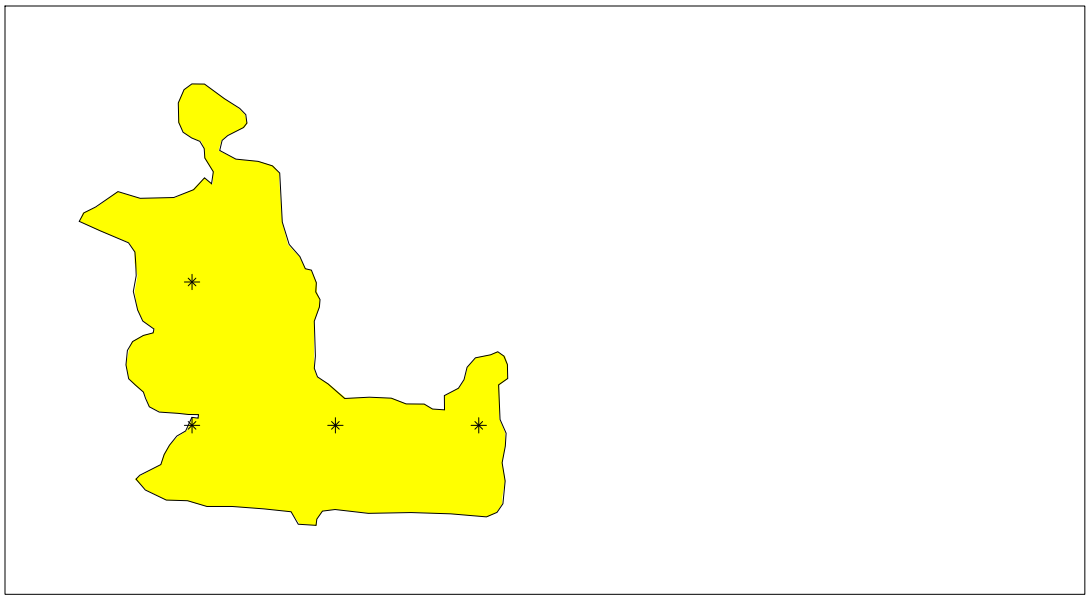
Summary

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

The following table summarizes the sampling design developed. A figure that shows sampling locations in the field and a table that lists sampling location coordinates are also provided below.

SUMMARY OF SAMPLING DESIGN	
Primary Objective of Design	Construct a Confidence Interval on the True Mean
Type of Sampling Design	Parametric
Sample Placement (Location) in the Field	Systematic sampling with a random start location
Formula for calculating number of sampling locations	Confidence Limits using Student's t-distribution
Calculated total number of samples	4
Number of samples on map [a]	4
Number of selected sample areas [b]	1
Specified sampling area [c]	9812.89 ft^2
Size of grid / Area of grid cell [d]	49.53 feet / 2453.22 ft^2
Grid pattern	Square
Total cost of sampling [e]	$7,840.00

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.
[e] Including measurement analyses and fixed overhead costs. See the Cost of Sampling section for an explanation of the costs presented here.



Area: Ogopogo						
X Coord	Y Coord	Label	Value	Type	Historical	Sample Area
-11527786.1788	3816448.0692			Systematic		
-11527736.6487	3816448.0692			Systematic		
-11527687.1187	3816448.0692			Systematic		
-11527786.1788	3816497.5992			Systematic		

Primary Sampling Objective
The primary purpose of sampling at this site is to construct a confidence interval on the true population mean value. After the samples are collected and analyzed, the resulting sample values can be used to construct a two-sided confidence interval. Once the confidence interval is computed (which will be an upper and a lower threshold), you can have the specified confidence that the true population mean is between the upper and lower thresholds.

Selected Sampling Approach
A parametric design was used to determine the number of samples. A parametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that parametric assumptions are true. These assumptions will be examined in post-sampling data analysis.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

VSP offers many options to determine the locations at which measurements are made or samples are collected and subsequently measured. For this design, systematic grid point sampling was chosen. Locating the sample points systematically provides data that are all equidistant apart. This approach does not provide as much information about the spatial structure of the potential contamination as simple random sampling does. Knowledge of the spatial structure is useful for geostatistical analysis. However, it ensures that all portions of the site are equally represented. Statistical analyses of systematically collected data are valid if a random start to the grid is used.

Number of Total Samples: Calculation Equation and Inputs
The equation used to calculate the number of samples is based on a confidence interval calculation using the Student's t-distribution. The formula used to calculate the number of samples is:

$$n = \left(\frac{t_{1-\alpha/2,df}}{d} \right)^2 \left(s^2_{sample} + \frac{s^2_{analytical}}{r} \right)$$

where

n is the recommended minimum sample size for the study area,

S_{sample} is the estimated standard deviation due to the inherent variability in the sampling process when analytical error is zero,

$S_{analytical}$ is the estimated standard deviation due to the inherent variability in the analysis process alone,

r is the number of times an individual sample is analyzed,

α is the maximum acceptable probability that the true mean will not lie in the confidence interval (the confidence level is 1-α),

d is the half-width of the confidence interval,

$t_{1-\alpha/2,df}$ is the value of the Student's t-distribution with $df=n-1$ degrees of freedom such that the proportion of the distribution less than $t_{1-\alpha/2}$ is 1-α/2.

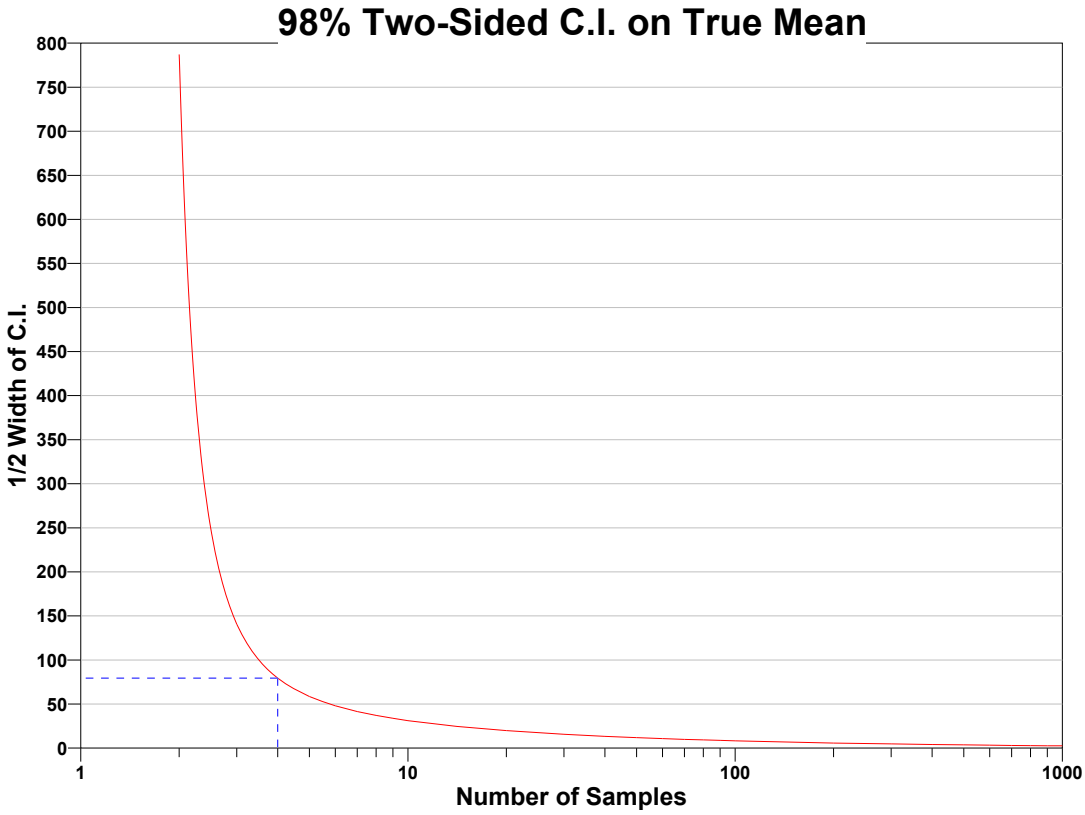
Because n appears on both sides of the equation (on the right side it appears in the degrees of freedom of the t-statistic), the equation must be solved iteratively. VSP does this automatically using the iteration scheme in Gilbert (1987, pg. 32).

The values of these inputs that result in the calculated number of sampling locations are:

Analyte	n	Parameter					
		S_{sample}	$S_{analytical}$	r	d	α	$t_{1-\alpha/2,df}$
Analyte 1	4	18	30	1	600	2%	-1e+12 [a]

[a] This value is automatically calculated by VSP based upon the user defined value of α

The following figure is a graph representing the relationship between the half-width of the confidence interval and the number of samples. The blue dashed line illustrates the specified maximum desirable confidence interval half-width. Where this dashed line intersects the red curve is the number of samples calculated by VSP.



Statistical Assumptions

The assumptions associated with the formulas for computing the number of samples are:

1. the sample mean is normally distributed,
2. the population values are not spatially or temporally correlated, and
3. the sampling locations will be selected probabilistically.

The first two assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

Sensitivity Analysis

The sensitivity of the calculation of number of samples was explored by varying the analytical standard deviation, confidence level (1-α) (%), width of confidence interval and sampling standard deviation. The following table shows the results of this analysis.

Number of Samples					
		s_{sample}=36		s_{sample}=18	
		$s_{analytical}$=36	$s_{analytical}$=18	$s_{analytical}$=36	$s_{analytical}$=18
CL=99	d=300	3	2	2	1
	d=600	1	1	1	1
	d=900	1	1	1	4
CL=97	d=300	1	1	1	4
	d=600	4	3	3	1
	d=900	2	1	1	1
CL=95	d=300	1	3	3	2
	d=600	2	1	1	1
	d=900	1	1	1	1

CL=93	**d=300**	3	2	2	1
	d=600	1	1	1	1
	d=900	1	1	1	1
CL=91	**d=300**	2	1	1	1
	d=600	1	1	1	1
	d=900	1	1	1	1

$s_{analytical}$ = Analytical Standard Deviation
CL = Confidence Level (1-α) (%)
d = Width of Confidence Interval
s_{sample} = Sampling Standard Deviation

Cost of Sampling
The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number of samples collected and measured. Based on the numbers of samples determined above, the estimated total cost of sampling and analysis at this site is $7,840.00, which averages out to a per sample cost of $1,960.00. The following table summarizes the inputs and resulting cost estimates.

COST INFORMATION			
Cost Details	**Per Analysis**	**Per Sample**	**4 Samples**
Field collection costs		$35.00	$140.00
Analytical costs (Analyte 1)	$675.00	$675.00	$2,700.00
Sum of Field & Analytical costs		**$710.00**	**$2,840.00**
Fixed planning and validation costs			$5,000.00
Total cost			**$7,840.00**

Recommended Data Analysis Activities
Post data collection activities generally follow those outlined in EPA's Guidance for Data Quality Assessment (EPA, 2000). The data analysts will become familiar with the context of the problem and goals for data collection and assessment. The data will be verified and validated before being subjected to statistical or other analyses. Graphical and analytical tools will be used to verify to the extent possible the assumptions of any statistical analyses that are performed as well as to achieve a general understanding of the data. The data will be assessed to determine whether they are adequate in both quality and quantity to support the primary objective of sampling.

Because the primary objective for sampling for this site is to compute a confidence interval, the data should be assessed in this context. Assuming the data are adequate, at least one statistical test should be done to evaluate whether the data are normally distributed. Appropriate confidence intervals for the mean value should then be calculated. Results of the exploratory and quantitative assessments of the data should be reported, along with conclusions that may be supported by them.

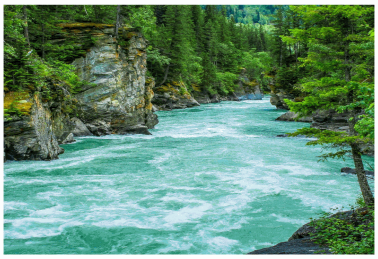
This report was automatically produced* by Visual Sample Plan (VSP) software version 7.19.
This design was last modified 12/30/2022 1:14:57 PM.
Software and documentation available at https://www.pnnl.gov/projects/visual-sample-plan
Software copyright (c) 2022 Battelle Memorial Institute. All rights reserved.
* - The report contents may have been modified or reformatted by end-user of software.

APPENDIX D

LABORATORY ANALYTICAL REPORTS

Report to:

Austin Weyant



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Atkins Engineering Associates Inc.

Project Name:	OGO POGO
Work Order:	E301103
Job Number:	20071-0001
Received:	1/20/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
1/24/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 1/24/23

Austin Weyant
2904 W. 2nd
Roswell, NM 88201

Project Name: OGO POGO
Workorder: E301103
Date Received: 1/20/2023 7:00:00AM

Austin Weyant,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/20/2023 7:00:00AM, under the Project Name: OGO POGO.

The analytical test results summarized in this report with the Project Name: OGO POGO apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Table of Contents (continued)

Sample Summary

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	01/24/23 12:01

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB1 - (0 - 1.5)	E301103-01A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB1 - 2	E301103-02A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB1 - 3	E301103-03A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB2 - (0 - 1 1/2)	E301103-04A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB2 - 2	E301103-05A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB2 - 3	E301103-06A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB3 - (0 - 1.5)	E301103-07A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB3 - 2'	E301103-08A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB3 - 3	E301103-09A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB4 - (0 - 1.5)	E301103-10A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB4 - 3'	E301103-11A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW1	E301103-12A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW2	E301103-13A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW3	E301103-14A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW4	E301103-15A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW5	E301103-16A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW6	E301103-17A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW7	E301103-18A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW8	E301103-19A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW9	E301103-20A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SW10	E301103-21A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.
SB4 - 4'	E301103-22A	Soil	01/17/23	01/20/23	Glass Jar, 2 oz.

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB1 - (0 - 1.5)

E301103-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*99.9 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**2340**	40.0	2	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB1 - 2

E301103-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*103 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**84.1**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB1 - 3

E301103-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*93.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*98.2 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**63.9**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB2 - (0 - 1 1/2)

E301103-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*93.1 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**5280**	200	10	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB2 - 2

E301103-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**782**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB2 - 3

E301103-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*101 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**96.0**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB3 - (0 - 1.5)

E301103-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*101 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**1650**	200	10	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB3 - 2'

E301103-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**112**	40.0	2	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB3 - 3

E301103-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*99.7 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**78.2**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB4 - (0 - 1.5)

E301103-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*101 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**2220**	40.0	2	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB4 - 3'

E301103-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*96.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**80.5**	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	**256**	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*65.5 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**461**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW1

E301103-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*96.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/21/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/21/23	
Surrogate: n-Nonane		*105 %*	*50-200*	*01/20/23*	*01/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**138**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW2

E301103-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*96.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**48.2**	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*105 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**20.4**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW3

E301103-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*95.9 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**20.4**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW4

E301103-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*99.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.0 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*106 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**80.7**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW5

E301103-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.2 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*98.6 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**634**	25.0	1	01/20/23	01/21/23	
Oil Range Organics (C28-C36)	**2240**	50.0	1	01/20/23	01/21/23	
Surrogate: n-Nonane		*102 %*	*50-200*	*01/20/23*	*01/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**710**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW6

E301103-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.1 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*99.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**160**	25.0	1	01/20/23	01/23/23	
Oil Range Organics (C28-C36)	**347**	50.0	1	01/20/23	01/23/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*01/20/23*	*01/23/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**156**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW7

E301103-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*95.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.5 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*95.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**306**	25.0	1	01/20/23	01/23/23	
Oil Range Organics (C28-C36)	**257**	50.0	1	01/20/23	01/23/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*01/20/23*	*01/23/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**243**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW8

E301103-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*98.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*97.9 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**1280**	500	20	01/20/23	01/23/23	
Oil Range Organics (C28-C36)	**2270**	1000	20	01/20/23	01/23/23	
Surrogate: n-Nonane		*97.7 %*	*50-200*	*01/20/23*	*01/23/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**198**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW9

E301103-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2303068
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: Bromofluorobenzene		*97.8 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: 1,2-Dichloroethane-d4		*98.3 %*	*70-130*	*01/20/23*	*01/20/23*	
Surrogate: Toluene-d8		*97.7 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303061
Diesel Range Organics (C10-C28)	**1440**	250	10	01/20/23	01/23/23	
Oil Range Organics (C28-C36)	**2290**	500	10	01/20/23	01/23/23	
Surrogate: n-Nonane		*108 %*	*50-200*	*01/20/23*	*01/23/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303075
Chloride	**632**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SW10

E301103-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL			Batch: 2303066
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*104 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL			Batch: 2303066
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303065
Diesel Range Organics (C10-C28)	**138**	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	**89.3**	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*92.9 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303072
Chloride	**823**	20.0	1	01/20/23	01/20/23	

Sample Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

SB4 - 4'

E301103-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL			Batch: 2303066
Benzene	ND	0.0250	1	01/20/23	01/20/23	
Ethylbenzene	ND	0.0250	1	01/20/23	01/20/23	
Toluene	ND	0.0250	1	01/20/23	01/20/23	
o-Xylene	ND	0.0250	1	01/20/23	01/20/23	
p,m-Xylene	ND	0.0500	1	01/20/23	01/20/23	
Total Xylenes	ND	0.0250	1	01/20/23	01/20/23	
Surrogate: 4-Bromochlorobenzene-PID		*104 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL			Batch: 2303066
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/20/23	01/20/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*99.4 %*	*70-130*	*01/20/23*	*01/20/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2303065
Diesel Range Organics (C10-C28)	ND	25.0	1	01/20/23	01/20/23	
Oil Range Organics (C28-C36)	ND	50.0	1	01/20/23	01/20/23	
Surrogate: n-Nonane		*85.8 %*	*50-200*	*01/20/23*	*01/20/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2303072
Chloride	ND	20.0	1	01/20/23	01/20/23	

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303068-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.488*		*0.500*		*97.5*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.495*		*0.500*		*98.9*	*70-130*			
Surrogate: Toluene-d8	*0.487*		*0.500*		*97.3*	*70-130*			
LCS (2303068-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	2.45	0.0250	2.50		98.1	70-130			
Ethylbenzene	2.20	0.0250	2.50		87.9	70-130			
Toluene	2.22	0.0250	2.50		88.8	70-130			
o-Xylene	2.30	0.0250	2.50		92.0	70-130			
p,m-Xylene	4.42	0.0500	5.00		88.5	70-130			
Total Xylenes	6.72	0.0250	7.50		89.6	70-130			
Surrogate: Bromofluorobenzene	*0.507*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.486*		*0.500*		*97.2*	*70-130*			
Surrogate: Toluene-d8	*0.485*		*0.500*		*97.0*	*70-130*			
Matrix Spike (2303068-MS1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	2.93	0.0250	2.50	ND	117	48-131			
Ethylbenzene	2.63	0.0250	2.50	ND	105	45-135			
Toluene	2.66	0.0250	2.50	ND	106	48-130			
o-Xylene	2.73	0.0250	2.50	ND	109	43-135			
p,m-Xylene	5.27	0.0500	5.00	ND	105	43-135			
Total Xylenes	7.99	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	*0.499*		*0.500*		*99.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.489*		*0.500*		*97.8*	*70-130*			
Surrogate: Toluene-d8	*0.485*		*0.500*		*97.0*	*70-130*			
Matrix Spike Dup (2303068-MSD1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	2.83	0.0250	2.50	ND	113	48-131	3.31	23	
Ethylbenzene	2.55	0.0250	2.50	ND	102	45-135	2.86	27	
Toluene	2.57	0.0250	2.50	ND	103	48-130	3.50	24	
o-Xylene	2.66	0.0250	2.50	ND	107	43-135	2.39	27	
p,m-Xylene	5.13	0.0500	5.00	ND	103	43-135	2.67	27	
Total Xylenes	7.79	0.0250	7.50	ND	104	43-135	2.57	27	
Surrogate: Bromofluorobenzene	*0.497*		*0.500*		*99.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.484*		*0.500*		*96.7*	*70-130*			
Surrogate: Toluene-d8	*0.481*		*0.500*		*96.1*	*70-130*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303066-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*8.22*		*8.00*		*103*	*70-130*			
LCS (2303066-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	5.20	0.0250	5.00		104	70-130			
Ethylbenzene	5.59	0.0250	5.00		112	70-130			
Toluene	5.62	0.0250	5.00		112	70-130			
o-Xylene	5.74	0.0250	5.00		115	70-130			
p,m-Xylene	11.3	0.0500	10.0		113	70-130			
Total Xylenes	17.1	0.0250	15.0		114	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.20*		*8.00*		*102*	*70-130*			
LCS Dup (2303066-BSD1)									Prepared: 01/20/23 Analyzed: 01/20/23
Benzene	4.92	0.0250	5.00		98.4	70-130	5.44	20	
Ethylbenzene	5.29	0.0250	5.00		106	70-130	5.58	20	
Toluene	5.33	0.0250	5.00		107	70-130	5.43	20	
o-Xylene	5.43	0.0250	5.00		109	70-130	5.55	20	
p,m-Xylene	10.7	0.0500	10.0		107	70-130	5.54	20	
Total Xylenes	16.2	0.0250	15.0		108	70-130	5.54	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.22*		*8.00*		*103*	*70-130*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303066-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.95*		*8.00*		*99.4*	*70-130*			
LCS (2303066-BS2)									Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	51.6	20.0	50.0		103	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.95*		*8.00*		*99.4*	*70-130*			
LCS Dup (2303066-BSD2)									Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	57.8	20.0	50.0		116	70-130	11.3	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.03*		*8.00*		*100*	*70-130*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303068-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.488*		*0.500*		*97.5*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.495*		*0.500*		*98.9*	*70-130*			
Surrogate: Toluene-d8	*0.487*		*0.500*		*97.3*	*70-130*			
LCS (2303068-BS2)									Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	53.1	20.0	50.0		106	70-130			
Surrogate: Bromofluorobenzene	*0.489*		*0.500*		*97.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.484*		*0.500*		*96.7*	*70-130*			
Surrogate: Toluene-d8	*0.483*		*0.500*		*96.6*	*70-130*			
Matrix Spike (2303068-MS2)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	62.5	20.0	50.0	ND	125	70-130			
Surrogate: Bromofluorobenzene	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.491*		*0.500*		*98.1*	*70-130*			
Surrogate: Toluene-d8	*0.488*		*0.500*		*97.5*	*70-130*			
Matrix Spike Dup (2303068-MSD2)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Gasoline Range Organics (C6-C10)	60.4	20.0	50.0	ND	121	70-130	3.40	20	
Surrogate: Bromofluorobenzene	*0.497*		*0.500*		*99.3*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.482*		*0.500*		*96.4*	*70-130*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303061-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*51.5*		*50.0*		*103*	*50-200*			
LCS (2303061-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	251	25.0	250		100	38-132			
Surrogate: n-Nonane	*51.4*		*50.0*		*103*	*50-200*			
Matrix Spike (2303061-MS1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	*49.2*		*50.0*		*98.4*	*50-200*			
Matrix Spike Dup (2303061-MSD1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	259	25.0	250	ND	103	38-132	0.527	20	
Surrogate: n-Nonane	*47.8*		*50.0*		*95.7*	*50-200*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303065-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*54.2*		*50.0*		*108*	*50-200*			
LCS (2303065-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	251	25.0	250		101	38-132			
Surrogate: n-Nonane	*48.3*		*50.0*		*96.5*	*50-200*			
Matrix Spike (2303065-MS1)				**Source: E301105-02**					Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	273	25.0	250	ND	109	38-132			
Surrogate: n-Nonane	*40.2*		*50.0*		*80.5*	*50-200*			
Matrix Spike Dup (2303065-MSD1)				**Source: E301105-02**					Prepared: 01/20/23 Analyzed: 01/20/23
Diesel Range Organics (C10-C28)	263	25.0	250	ND	105	38-132	3.70	20	
Surrogate: n-Nonane	*33.5*		*50.0*		*67.0*	*50-200*			

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303072-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	ND	20.0							
LCS (2303072-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	252	20.0	250		101	90-110			
LCS Dup (2303072-BSD1)									Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	253	20.0	250		101	90-110	0.209	20	

QC Summary Data

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	**Reported:**
2904 W. 2nd	Project Number:	20071-0001	
Roswell NM, 88201	Project Manager:	Austin Weyant	1/24/2023 12:01:48PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2303075-BLK1)									Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	ND	20.0							
LCS (2303075-BS1)									Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	259	20.0	250		103	90-110			
Matrix Spike (2303075-MS1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	2600	40.0	250	2340	106	80-120			
Matrix Spike Dup (2303075-MSD1)				**Source: E301103-01**					Prepared: 01/20/23 Analyzed: 01/20/23
Chloride	2760	40.0	250	2340	168	80-120	5.74	20	M4

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Atkins Engineering Associates Inc.	Project Name:	OGO POGO	
2904 W. 2nd	Project Number:	20071-0001	**Reported:**
Roswell NM, 88201	Project Manager:	Austin Weyant	01/24/23 12:01

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Released to Imaging: 2/24/2023 3:58:05 PM
Received by OCD: 2/15/2023 7:47:57 AM

Project Information | Chain of Custody | Page 1 of 3

Client:	ATKINS ENG
Project:	OGOPOGO
Project Manager:	AUSTIN WHITENT
Address:	213 W MERMOD
City, State, Zip	CARLSBAD
Phone:	@austin@ 5156223943
Email:	atkmseng.com
Report due by:	

Bill To

Attention:	ATKINS
Address:	
City, State, Zip	
Phone:	
Email:	

Lab Use Only

Lab WO#	Job Number
E301103	20071-0001

TAT

1D	2D	3D	Standard
			X

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC	Remarks
11:23	1/17/23	S	1202	SB1 - (0 - 1.5)	1								X	
11:23				SB1 - 2	2								X	
11:34				SB1 - 3	3								X	
11:50				SB2 - (0 - 1½)	4								X	
11:50				SB2 - 2	5								X	
12:12				SB2 - 3	6								X	
12:33				SB3 - (0 - 1.5)	7								X	
12:33				SB3 - 2'	8								X	
12:33				SB3 - 3	9								X	
13:05				SB4 - (0 - 1.5)	10								X	

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	1/18/23	9:43	[signature]	1-18-23	9:43
[signature]	1-19-23	1715	[signature]	1-19-23	1730
[signature]	1-19-23	2300	[signature]	1/20/23	7:00

Lab Use Only

Received on ice: (Y) / N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Page 72 of 77

Released to Imaging: 2/24/2023 3:58:05 PM
Received by OCD: 2/15/2023 7:47:57 AM

Project Information | Chain of Custody | Page 2 of 3

Client: ATKINS ENG	Bill To	Lab Use Only	TAT / EPA Program
Project:	Attention:	Lab WO# E301103	Job Number 2007I-0001
Project Manager: AUSTIN WEYMENT	Address:	1D 2D 3D Standard: X	CWA SDWA RCRA
Address: 213 W MERMOD	City, State, Zip		State: NM CO UT AZ TX
City, State, Zip CARLSBAD	Phone:		
Phone: austin@ 5156223943	Email:		
Email: atkinseng.com			
Report due by:			

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC	Remarks
13:05	1/17/23	S	1	SB4 - 3'	11								X	
14:09				SW1	12								X	
14:10				SW2	13								X	
14:06				SW3	14								X	
14:09				SW4	15								X	
14:13				SW5	16								X	
14:20				SW6	17								X	
14:28				SW7	18								X	
14:25				SW8	19								X	
14:30				SW9	20								X	

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	1/18/23	9:43	Michelle Cruz	1-18-23	9:43
Michelle Cruz	1-19-23	1715	Lorenzo Lei	1-19-23	1730
Lorenzo Lei	1-19-23	2300	Cath Chat	1/20/23	7:00

Lab Use Only: Received on ice: (Y) / N; T1 ____ T2 ____ T3 ____; AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Page 73 of 77

Released to Imaging: 2/24/2023 3:58:05 PM
Received by OCD: 2/15/2023 7:47:57 AM

Project Information | Chain of Custody | Page 3 of 3

Client: ATKINS ENG	Bill To	Lab Use Only	TAT / EPA Program
Project:	Attention:	Lab WO# E301103	Job Number 20071-0001
Project Manager: AUSTIN WHITENT	Address:	1D 2D 3D Standard: X	CWA / SDWA / RCRA
Address: 213 W MERMOD	City, State, Zip		
City, State, Zip CARLSBAD	Phone:		
Phone: @austin@ 5156223943	Email:		
Email: atkinsgy.com			
Report due by:			

Analysis and Method: DRO/ORO by 8015; GRO/DRO by 8015; BTEX by 8021; VOC by 8260; Metals 6010; Chloride 300.0; BGDOC

State: NM | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO	GRO/DRO	BTEX	VOC	Metals	Chloride		BGDOC	Remarks
14:41	1/17/23	S	1 (20z)	SW10	21								X	
13:05	↓	↓	↓	SB4 -4'	22								X	

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. Austin	1/18/23	943	Michelle Gaytan	1-18-23	9:43
Michelle Gaytan	1-19-23	1715	Lorenzo Lei	1-19-23	1730
Lorenzo Lei	1-19-23	2302	Earth Chat	1/20/23	7:00

Lab Use Only: Received on ice: (Y) / N; T1 ____ T2 ____ T3 ____; AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 1/20/2023 8:39:09AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Atkins Engineering Associates Inc.	Date Received:	01/20/23 07:00	Work Order ID:	E301103
Phone:	(575) 626-3993	Date Logged In:	01/19/23 15:23	Logged In By:	Caitlin Christian
Email:	austin@atkinseng.com	Due Date:	01/25/23 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	No	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 186350

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 186350
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. Composite confirmation samples will be collected from the bottom and sidewalls of the excavation from areas representing no more than four hundred (400) square feet. Lateral delineation was not achieved at sample points SW4 through SW10. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Delineation is based on laboratory analysis.	2/24/2023