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	nAPP2116253030
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: LOGOS Operating, LLC	OGRID: 289408
Contact Name: Vanessa Fields	Contact Telephone: 505-320-1243
Contact email: vfields@logosresourcesllc.com	Incident # *(assigned by OCD nAPP2116253030*
Contact mailing address: 2010 Afton Place Farmington, NM 87401	

Location of Release Source

Latitude 36.8678207 Longitude -107.4165344
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rosa Unit #218	Site Type: Well
Date Release Discovered: 6/1/2021	API# *(if applicable)*: 30-039-24497

Unit Letter	Section	Township	Range	County
K	25	31N	6W	Rio Arriba

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): 12 bbls	Volume Recovered (bbls): 12bbls
	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:

The cause of the release is due to a hole on the 500bbl production tank. The volume released was +/- 12bbls of produced water on June 1, 2021. The measurement was calculated by the daily water production measured daily from the well. The tank level was working on May 31 but broke in 24 hours and the release was found June 1st. The affected area was contained within the berm. LOGOS sucked up the produced water with a hydro vac and patched the production tank.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116253030
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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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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: Vanessa Fields Title: Regulatory Manager

Signature: Date: 8/01/2022

email: _vfields@logosresourcesllc.com Telephone: (505) 320-1243

OCD Only

Received by: Jocelyn Harimon Date: 08/01/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116253030
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?	100 (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.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116253030
District RP	
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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: Vanessa Fields Title: Regulatory Manager

Signature: Date: 8/01/2022

email: vfields@logosresourcesllc.com Telephone: (505) 320-1243

OCD Only

Received by: Jocelyn Harimon Date: 08/01/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116253030
District RP	
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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.

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Printed Name: Vanessa Fields Title: Regulatory Manager

Signature: Date: 8/01/2022

email: vfields@logosresourcesllc.com Telephone: 505-320-1243

OCD Only

Received by: Jocelyn Harimon Date: 08/01/2022

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

Signature: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116253030
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Vanessa Fields Title: Regulatory Manager

Signature: Date: 8/01/2022

email: _vfields@logosresourcesllc.com Telephone: (505) 320-1243

OCD Only

Received by: Jocelyn Harimon Date: 08/01/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Nelson Velez Date: 08/26/2022

Printed Name: Title: Environmental Specialist – Adv

Marie Florez

From: Marie Florez
Sent: Monday, October 11, 2021 8:57 AM
To: leighp.barr@state.nm.us; Adeloye, Abiodun A; Smith, Cory, EMNRD
Cc: Robert Bixler; Robert Bixler; David Dryer; Chris Clark; Etta Trujillo; Marcia Brueggenjohann
Subject: Rosa Unit 218- 36.8678207, -107.4165344 - Notification for Final Confirmation sample

LOGOS sucked up the produced water with a hydro vac due to a hole on the 500bbl production tank and treated the affected area with Gypsum. After 90 days the affected area is still above content level.

October 7, 2021, the production tank was removed, and remediation began.

LOGOS is notifying OCD (1) business day prior to conducting final sampling on the following well.

Date: October 12, 2021 (Tuesday)
Time: 10:30am

Incident # nAPP2116253030

Surface: Federal

API: 30-039-24497
Well Name: Rosa Unit 218
Section: 25
Township:31N
Range: 6W
Unit Letter: K
Footage: 1625 FSL 1940 FWL
Lat 36.8678207
Long -107.4165344

Thanks,

Marie E. Florez
Regulatory Specialist
Cell: 505-419-8420
Office: 505-787-2218
mflorez@logosresourcesllc.com

Marie Florez

From: Barr, Leigh P EMNRD <leighp.barr@state.nm.us>
Sent: Tuesday, October 12, 2021 7:59 AM
To: Marie Florez
Subject: RE: [EXTERNAL] Rosa Unit 218- 36.8678207, -107.4165344 - Notification for Final Confirmation sample

Marie,

I believe I addressed this in the text I replied back to you a few days ago. Please replace me with Mike Bratcher (mike.bratcher@state.nm.us). He is the supervisor of the incidents group and generally handles releases and remediation. Hope you have a great week.

Leigh Barr

From: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Monday, October 11, 2021 8:57 AM
To: Barr, Leigh P EMNRD <leighp.barr@state.nm.us>; Adeloye, Abiodun A <aadeloye@blm.gov>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Robert Bixler <rbixler@logosresourcesllc.com>; Robert Bixler <rbixler@logosresourcesllc.com>; David Dryer <ddryer@logosresourcesllc.com>; Chris Clark <cclark@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>; Marcia Brueggenjohann <mbrueggenjohann@logosresourcesllc.com>
Subject: [EXTERNAL] Rosa Unit 218- 36.8678207, -107.4165344 - Notification for Final Confirmation sample

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Unit Letter: K
Footage: 1625 FSL 1940 FWL
Lat 36.8678207
Long -107.4165344

Thanks,

Marie E. Florez
Regulatory Specialist
Cell: 505-419-8420
Office: 505-787-2218
mflorez@logosresourcesllc.com

Nelson Velez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Incident # nAPP2116253030

RE: The cause of the release is due to a hole on the 500bbl production tank. The estimated release volume was +/- 12bbls of crude oil, at the Rosa Unit #218 well site. Located in Unit K, Section 25, Township 31 North, Range 6 West, Rio Arriba County, New Mexico.

Dear Mr. Velez,

On June 1, 2021, LOGOS Operating, LLC had a release 12 BBLS of produced water due to hole in the production tank. All free liquids were removed from within the C-Ring of the tank berm.

Due to change in staff in 2020,2021 & 2022 this release was never completed at the same time Covid happened March of 2020. Due to the limited information obtained from the previous records the full remediation is completed but I am unaware of the actions that occurred.

On October 14, 2021, LOGOS notified BLM and NMOCD for final confirmation sample to be taken. All confirmation samples were below closure standards.

8/17/2021 Analytical Results								
Sample Description	Date 8/19/2021	Sample Depth See below	EPA Method 8015		EPA Method 8021		EPA Method 300.0	
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
19.15.29.13 (D) NMAC			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					
SB-1 @ 2'	8/19/2021	2 'bgs	ND	ND	ND	ND	ND	280
SB-1 @ 4'	8/19/2021	4 'bgs	ND	ND	ND	ND	ND	484
SB-2 @ 2'	8/19/2021	2 'bgs	ND	ND	ND	ND	ND	247
SB-2 @ 4'	8/19/2021	4 'bgs	ND	44.1	59.9	ND	ND	241
SB-3 @ 2'	8/19/2021	2 'bgs	ND	ND	ND	ND	ND	316
SB-3 @ 4'	8/19/2021	4 'bgs	ND	ND	ND	ND	ND	293
SB-4 @ 2'	8/19/2021	2 'bgs	ND	150	172	ND	ND	680
SB-4@ 4'	8/19/2021	4 'bgs	ND	ND	ND	ND	ND	323
SB-5 @ 2'	8/19/2021	2 'bgs	ND	ND	ND	ND	ND	703
SB-5 @ 4'	8/19/2021	4 'bgs	ND	ND	ND	ND	ND	647

Per the results analytical report from Envirotech SB-4 and SB-5 was above content level. LOGOS must remediate.

Further remediation was conducted, and excavation was extended to 4' bgs. Samples were collected from the west wall and base of excavation. Due to personal change the email notification to the NMOCD was unable to be identified.

Final Sample Results								
Sample Description	Date 10/15/2021	Sample Depth 4'	EPA Method 8015		EPA Method 8021		EPA Method 300.0	
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
19.15.29.13 (D) NMAC			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					
Base West 4'		4' BGS	ND	ND	ND	ND	ND	270
Base 4' East		4' Base	ND	ND	ND	ND	ND	215

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

The samples that were collected were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH (GRO/DRO/ORO) using EPA Method 8015D; benzene, Toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B and chlorides using EPA Method 300.0.

All final confirmation sampling that was collected was below NMOCD 19.15.29 closure standard of

Therefore, based on the site activities and the laboratory analytical results confirms that concentrations of contaminants are below the applicable release, remediation/reclamation limits and no further action is required. LOGOS request a release and remediation/reclamation closure approval from NMOCD.

Sincerely,

Vanessa Fields
Regulatory Manager
Cell: 505-320-1243

Rosa Unit # 218

SB 2 @2'
SB 2 @4'
SB 1 @2'
SB 1 @4'
SB 3 @2'
SB 3 @4'
SB 5 @2'
SB 5 @4'
SB 4 @2'
SB 4 @4'
N

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS IN NORTHWEST NEW MEXICO

OPERATOR: Williams Production Company LOCATION: N 25 31 6 LEASE NUMBER: SF-078766

NAME OF WELL/WELLS OR PIPELINE SERVICED: ROSA UNIT #059 GL/DK 30-039-23270
DUALWELL ROSA #218 30-039-24497

ELEVATION: 6400' GR COMPLETION DATE: 10/13/88 TOTAL DEPTH: 500 ft. LAND TYPE: FED

CASING: 7-5/8" 26.4# K-55 Set @ N/A ft. Casing is not cemented.

CEMENT PLUG--Top:N/A' Bottom: N/A' Used 0 sx. Class "B" (1.18 cu.ft./sk).

WATER DEPTH: 100' Water zone thickness not available. WATER DESCRIPTION: Fresh

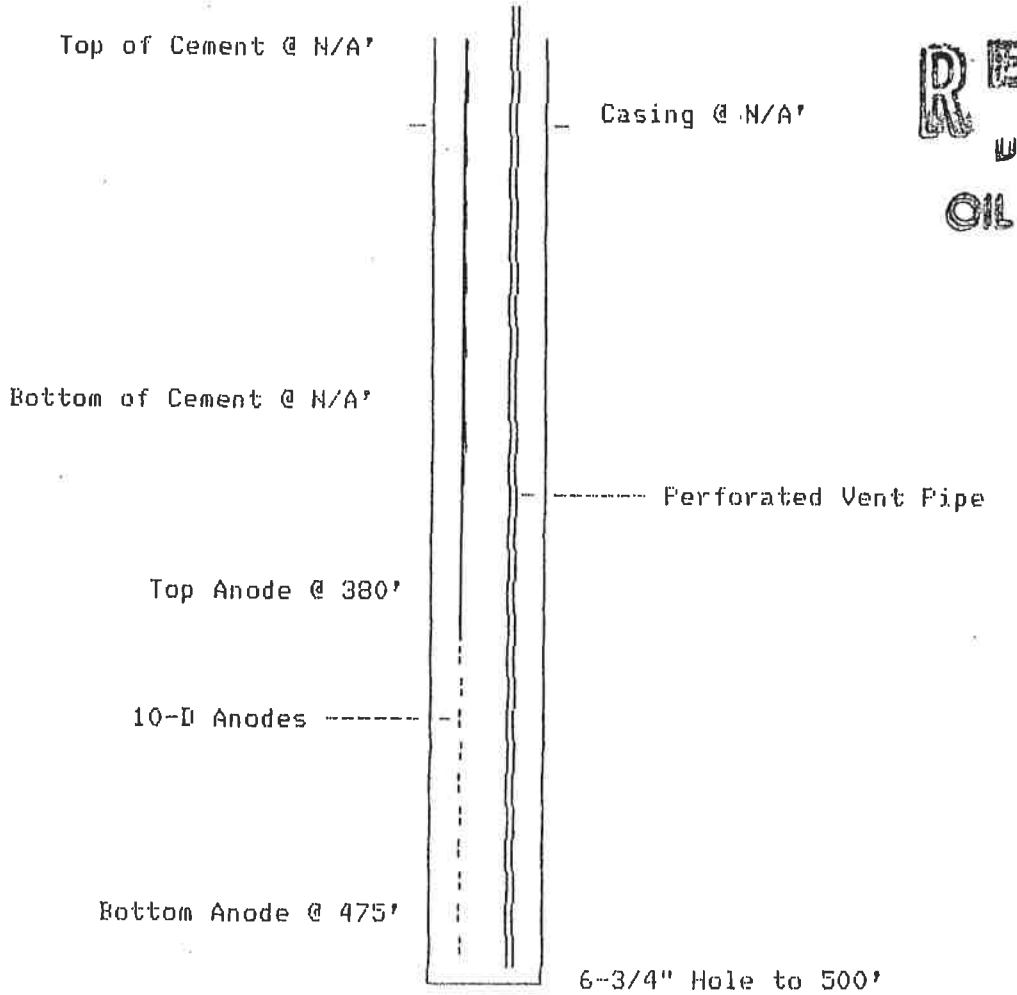
DEPTH OF GAS: N/A '

COKE: 4590 lbs. of Metalurgical coke breeze used.

NUMBER & TYPE OF ANODES: 10-D TOP ANODE @ 380 ft. BOTTOM ANODE @ 475 ft.

VENT PIPE: 1" PVC Set @ 500 ft. Vent pipe perforated from 360 ft. to 500 ft.

REMARKS: _____



DRILLING LOG

ROSA #59

(NOTE WHERE WATER IS LOCATED)

	SOIL
10	Sandstone
20	"
30	"
40	"
50	"
60	"
70	"
80	"
90	"
100	" – water
110	"
120	"
130	"
140	Shale
150	"
160	"
170	"
180	"
190	Sandy Shale
200	"
210	"
220	"
230	"
240	Shale
250	"
260	"
270	Sandrock
280	"
290	"
300	"
310	"
320	"
330	"
340	"
350	"
360	Shale
370	"
380	"
390	"
400	"
410	"
420	Sandstone
430	"
440	"
450	"
460	"
470	"
480	"
490	Shale
500	"
510	"
520	"

DATE 10/13/88

10	130 .8	250 1.1	370 1.0	490 .9
15	135 .6	255 .8	375 1.3	495 .8
20	140 .6	260 .5	380 2.0 -10	500 1.0
25	145 .6	265 .6	385 1.8	505
30	150 .7	270 .8	390 1.2 -9	510
35	155 .7	275 1.0	395 1.6	
40	160 .8	280 1.1	400 1.4	Total Amps 12.9
45	165 .7	285 1.2	405 1.1	Total Volts 10.8
50	170 .7	290 .5	410 1.3	Total Res. .83 Ω
55	175 .7	295 .7	415 1.8 -7	1) 2.7
60	180 .8	300 .8	420 2.5	2) 3.1
65	185 .8	305 .9	425 2.7 -6	3) 3.1
70	190 .7	310 1.0	430 2.5	4) 2.8
75	195 .7	315 .8	435 2.4 -5	5) 2.9
80	200 .9	320 .9	440 2.2	6) 3.2
85	205 .6	325 .9	445 2.4 -4	7) 2.1
90	210 .8	330 1.2	450 2.1	8) 1.4
95	215 .8	335 1.9	455 2.3 -3	9) 1.2
Water 100 .7	220 .8	340 1.6	460 2.4	10) 2.6
105 .7	225 .5	345 1.4	465 2.2 -2	
110 .8	230 .6	350 1.2	470 2.3	
115 .6	235 .4	355 1.0	475 2.4 -1	
120 .8	240 .6	360 1.1	480 1.0	
125 .7	245 .7	365 1.0	485 .9	

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximat point selected by the user and does not repres an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/1/2022 at 12:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Report to:

Robert Jordan

5796 U.S. Hwy 64
Farmington, NM 87401

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

NELAP ACCREDITED TNI LABORATORY

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Analytical Report

Logos Resources

Project Name: Rosa Unit 218

Work Order: E108076

Job Number: 12035-0114

Received: 8/19/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/26/21

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.
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Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/26/21

Robert Jordan
2010 Afton Place
Farmington, NM 87401

Project Name: Rosa Unit 218
Workorder: E108076
Date Received: 8/19/2021 4:15:00PM

Robert Jordan,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/19/2021 4:15:00PM, under the Project Name: Rosa Unit 218.

The analytical test results summarized in this report with the Project Name: Rosa Unit 218 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,

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Sample Summary

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	08/26/21 14:51

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1 at 2'	E108076-01A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-1 at 4'	E108076-02A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-2 at 2'	E108076-03A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-2 at 4'	E108076-04A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-3 at 2'	E108076-05A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-3 at 4'	E108076-06A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-4 at 2'	E108076-07A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-4 at 4'	E108076-08A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-5 at 2'	E108076-09A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.
SB-5 at 4'	E108076-10A	Soil	08/19/21	08/19/21	Glass Jar, 4 oz.

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-1 at 2'

E108076-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/24/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/24/21	
Toluene	ND	0.0250	1	08/23/21	08/24/21	
o-Xylene	ND	0.0250	1	08/23/21	08/24/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/24/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/24/21	
Surrogate: Bromofluorobenzene		*98.0 %*	*70-130*	*08/23/21*	*08/24/21*	
Surrogate: 1,2-Dichloroethane-d4		*99.6 %*	*70-130*	*08/23/21*	*08/24/21*	
Surrogate: Toluene-d8		*94.8 %*	*70-130*	*08/23/21*	*08/24/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/24/21	
Surrogate: Bromofluorobenzene		*98.0 %*	*70-130*	*08/23/21*	*08/24/21*	
Surrogate: 1,2-Dichloroethane-d4		*99.6 %*	*70-130*	*08/23/21*	*08/24/21*	
Surrogate: Toluene-d8		*94.8 %*	*70-130*	*08/23/21*	*08/24/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*112 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**280**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-1 at 4'

E108076-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*97.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.5 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*97.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.5 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*106 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**484**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-2 at 2'

E108076-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.1 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*95.0 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.1 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*95.0 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*108 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**247**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-2 at 4'

E108076-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.3 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	**44.1**	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	**59.9**	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*115 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**241**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-3 at 2'

E108076-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*99.2 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*99.2 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*85.6 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**316**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-3 at 4'

E108076-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*95.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.1 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*95.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.1 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*83.3 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**293**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-4 at 2'

E108076-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*97.4 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*93.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*97.4 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*93.8 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	**150**	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	**172**	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*92.1 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**680**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-4 at 4'

E108076-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*92.9 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*92.9 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*86.9 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**323**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-5 at 2'

E108076-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.5 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*94.5 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*96.6 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**703**	20.0	1	08/24/21	08/24/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

SB-5 at 4'

E108076-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Benzene	ND	0.0250	1	08/23/21	08/25/21	
Ethylbenzene	ND	0.0250	1	08/23/21	08/25/21	
Toluene	ND	0.0250	1	08/23/21	08/25/21	
o-Xylene	ND	0.0250	1	08/23/21	08/25/21	
p,m-Xylene	ND	0.0500	1	08/23/21	08/25/21	
Total Xylenes	ND	0.0250	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.7 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*93.0 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2135011
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/23/21	08/25/21	
Surrogate: Bromofluorobenzene		*96.7 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*08/23/21*	*08/25/21*	
Surrogate: Toluene-d8		*93.0 %*	*70-130*	*08/23/21*	*08/25/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2135029
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/21	08/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/21	08/26/21	
Surrogate: n-Nonane		*108 %*	*50-200*	*08/25/21*	*08/26/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2135015
Chloride	**647**	20.0	1	08/24/21	08/24/21	

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2135011-BLK1)									Prepared: 08/23/21 Analyzed: 08/25/21
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	*0.485*		*0.500*		*97.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.472*		*0.500*		*94.4*	*70-130*			
LCS (2135011-BS1)									Prepared: 08/23/21 Analyzed: 08/24/21
Benzene	2.91	0.0250	2.50		116	70-130			
Ethylbenzene	2.74	0.0250	2.50		110	70-130			
Toluene	2.73	0.0250	2.50		109	70-130			
o-Xylene	2.65	0.0250	2.50		106	70-130			
p,m-Xylene	5.40	0.0500	5.00		108	70-130			
Total Xylenes	8.06	0.0250	7.50		107	70-130			
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.497*		*0.500*		*99.3*	*70-130*			
Surrogate: Toluene-d8	*0.487*		*0.500*		*97.3*	*70-130*			
Matrix Spike (2135011-MS1)				**Source: E108076-01**					Prepared: 08/23/21 Analyzed: 08/24/21
Benzene	2.86	0.0250	2.50	ND	114	48-131			
Ethylbenzene	2.67	0.0250	2.50	ND	107	45-135			
Toluene	2.65	0.0250	2.50	ND	106	48-130			
o-Xylene	2.57	0.0250	2.50	ND	103	43-135			
p,m-Xylene	5.28	0.0500	5.00	ND	106	43-135			
Total Xylenes	7.85	0.0250	7.50	ND	105	43-135			
Surrogate: Bromofluorobenzene	*0.507*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.506*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.478*		*0.500*		*95.5*	*70-130*			
Matrix Spike Dup (2135011-MSD1)				**Source: E108076-01**					Prepared: 08/23/21 Analyzed: 08/24/21
Benzene	2.88	0.0250	2.50	ND	115	48-131	0.784	23	
Ethylbenzene	2.75	0.0250	2.50	ND	110	45-135	2.69	27	
Toluene	2.73	0.0250	2.50	ND	109	48-130	2.85	24	
o-Xylene	2.65	0.0250	2.50	ND	106	43-135	2.91	27	
p,m-Xylene	5.42	0.0500	5.00	ND	108	43-135	2.65	27	
Total Xylenes	8.07	0.0250	7.50	ND	108	43-135	2.73	27	
Surrogate: Bromofluorobenzene	*0.496*		*0.500*		*99.1*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.514*		*0.500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.484*		*0.500*		*96.7*	*70-130*			

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2135011-BLK1)									Prepared: 08/23/21 Analyzed: 08/25/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.485*		*0.500*		*97.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.472*		*0.500*		*94.4*	*70-130*			
LCS (2135011-BS2)									Prepared: 08/23/21 Analyzed: 08/24/21
Gasoline Range Organics (C6-C10)	56.4	20.0	50.0		113	70-130			
Surrogate: Bromofluorobenzene	*0.497*		*0.500*		*99.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.497*		*0.500*		*99.3*	*70-130*			
Surrogate: Toluene-d8	*0.489*		*0.500*		*97.7*	*70-130*			
Matrix Spike (2135011-MS2)				**Source: E108076-01**					Prepared: 08/23/21 Analyzed: 08/24/21
Gasoline Range Organics (C6-C10)	55.8	20.0	50.0	ND	112	70-130			
Surrogate: Bromofluorobenzene	*0.498*		*0.500*		*99.5*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.494*		*0.500*		*98.7*	*70-130*			
Surrogate: Toluene-d8	*0.479*		*0.500*		*95.7*	*70-130*			
Matrix Spike Dup (2135011-MSD2)				**Source: E108076-01**					Prepared: 08/23/21 Analyzed: 08/24/21
Gasoline Range Organics (C6-C10)	55.0	20.0	50.0	ND	110	70-130	1.41	20	
Surrogate: Bromofluorobenzene	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.500*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.486*		*0.500*		*97.2*	*70-130*			

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2135029-BLK1)									Prepared: 08/25/21 Analyzed: 08/25/21
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*55.2*		*50.0*		*110*	*50-200*			
LCS (2135029-BS1)									Prepared: 08/25/21 Analyzed: 08/25/21
Diesel Range Organics (C10-C28)	544	25.0	500		109	38-132			
Surrogate: n-Nonane	*52.6*		*50.0*		*105*	*50-200*			
Matrix Spike (2135029-MS1)				**Source: E108076-04**					Prepared: 08/25/21 Analyzed: 08/25/21
Diesel Range Organics (C10-C28)	569	25.0	500	44.1	105	38-132			
Surrogate: n-Nonane	*53.6*		*50.0*		*107*	*50-200*			
Matrix Spike Dup (2135029-MSD1)				**Source: E108076-04**					Prepared: 08/25/21 Analyzed: 08/25/21
Diesel Range Organics (C10-C28)	549	25.0	500	44.1	101	38-132	3.59	20	
Surrogate: n-Nonane	*47.1*		*50.0*		*94.1*	*50-200*			

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	8/26/2021 2:51:10PM

Anions by EPA 300.0/9056A

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 (2135015-BLK1)									Prepared: 08/24/21 Analyzed: 08/24/21
Chloride	ND	20.0							
LCS (2135015-BS1)									Prepared: 08/24/21 Analyzed: 08/24/21
Chloride	233	20.0	250		93.3	90-110			
Matrix Spike (2135015-MS1)				**Source: E108076-01**					Prepared: 08/24/21 Analyzed: 08/24/21
Chloride	526	20.0	250	280	98.2	80-120			
Matrix Spike Dup (2135015-MSD1)				**Source: E108076-01**					Prepared: 08/24/21 Analyzed: 08/24/21
Chloride	529	20.0	250	280	99.3	80-120	0.539	20	

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

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	08/26/21 14:51

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.

Project Information

Chain of Custody

Page 1 of 1

Client: LOGOS Resources II, LLC	Bill To
Project: Rosa Unit 218	Attention: Robert Jordan
Project Manager: Robert Jordan	Address: 2010 Afton Place
Address: 2010 Afton Place	City, State, Zip Farmington NM 87401
City, State, Zip Farmington, NM 87401	Phone: 505-324-4145
Phone: 505-320-1395	Email: etrujillo@logosresourcesllc.com
Email: rjordan@logosresourcesllc.com	etrujillo@logosresourcesllc.com
Report due by:	mflorez@logosresourcesllc.com

Lab Use Only: Lab WO# P20408076 Job Number 12035-044

TAT: 1D 3D

EPA Program: RCRA CWA SDWA

State: NM CO UT AZ TX OK

Time Sampled	Date Sampled	Matrix	No. Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	Remarks
1:15	8/19/2021	S	1-4oz jar	SB-1 at 2'	1	X	X	X			X	
12:18	8/19/2021	S	1-4oz jar	SB-1 at 4'	2	X	X	X			X	
11:20	8/19/2021	S	1-4oz jar	SB-2 at 2'	3	X	X	X			X	
12:14	8/19/2021	S	1-4oz jar	SB-2 at 4'	4	X	X	X			X	
11:05	8/19/2021	S	1-4oz jar	SB-3 at 2'	5	X	X	X			X	
12:13	8/19/2021	S	1-4oz jar	SB-3 at 4'	6	X	X	X			X	
11:06	8/19/2021	S	1-4oz jar	SB-4 at 2'	7	X	X	X			X	
12:10	8/19/2021	S	1-4oz jar	SB-4 at 4'	8	X	X	X			X	
10:50	8/19/2021	S	1-4oz jar	SB-5 at 2'	9	X	X	X			X	
12:28	8/19/2021	S	1-4oz jar	SB-5 at 4'	10	X	X	X			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
	8/19/21	4:15		8/19/21	16:15
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

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 Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-1881 Fx (505) 632-1865

24 Hour Emergency Response Phone (800)

envirotech-inc.com

labadmin@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 8/20/2021 2:33:11PM

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:	Logos Resources	Date Received:	08/19/21 16:15	Work Order ID:	E108076
Phone:	(505) 320-1395	Date Logged In:	08/20/21 14:21	Logged In By:	Jessica Liesse
Email:	rjordan@logosresourcesllc.com	Due Date:	08/26/21 17:00 (5 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: Marie Florez
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?	No

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.

Report to:

Robert Jordan

5796 U.S. Hwy 64
Farmington, NM 87401

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

NELAP ACCREDITED TNI LABORATORY

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Logos Resources

Project Name:	Rosa Unit 218
Work Order:	E110067
Job Number:	12035-0114
Received:	10/14/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/15/21

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.

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: 10/15/21

Robert Jordan
2010 Afton Place
Farmington, NM 87401

Project Name: Rosa Unit 218
Workorder: E110067
Date Received: 10/14/2021 12:30:00PM

Robert Jordan,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/14/2021 12:30:00PM, under the Project Name: Rosa Unit 218.

The analytical test results summarized in this report with the Project Name: Rosa Unit 218 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
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Sample Summary

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/21 13:56

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS 1 @ Base West	E110067-01A	Soil	10/14/21	10/14/21	Glass Jar, 4 oz.
CS 2 @ Base East	E110067-02A	Soil	10/14/21	10/14/21	Glass Jar, 4 oz.

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/2021 1:56:36PM

CS 1 @ Base West

E110067-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2142038
Benzene	ND	0.250	10	10/14/21	10/15/21	
Ethylbenzene	ND	0.250	10	10/14/21	10/15/21	
Toluene	ND	0.250	10	10/14/21	10/15/21	
o-Xylene	ND	0.250	10	10/14/21	10/15/21	
p,m-Xylene	ND	0.500	10	10/14/21	10/15/21	
Total Xylenes	ND	0.250	10	10/14/21	10/15/21	
Surrogate: 4-Bromochlorobenzene-PID		*93.4 %*	*70-130*	*10/14/21*	*10/15/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2142038
Gasoline Range Organics (C6-C10)	ND	200	10	10/14/21	10/15/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.6 %*	*70-130*	*10/14/21*	*10/15/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2142033
Diesel Range Organics (C10-C28)	ND	25.0	1	10/14/21	10/15/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/14/21	10/15/21	
Surrogate: n-Nonane		*109 %*	*50-200*	*10/14/21*	*10/15/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2142031
Chloride	**270**	20.0	1	10/14/21	10/15/21	

Sample Data

Logos Resources	Project Name:	Rosa Unit 218	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/2021 1:56:36PM

CS 2 @ Base East

E110067-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2142038
Benzene	ND	0.0250	1	10/14/21	10/15/21	
Ethylbenzene	ND	0.0250	1	10/14/21	10/15/21	
Toluene	ND	0.0250	1	10/14/21	10/15/21	
o-Xylene	ND	0.0250	1	10/14/21	10/15/21	
p,m-Xylene	ND	0.0500	1	10/14/21	10/15/21	
Total Xylenes	ND	0.0250	1	10/14/21	10/15/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.1 %*	*70-130*	*10/14/21*	*10/15/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2142038
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/14/21	10/15/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.4 %*	*70-130*	*10/14/21*	*10/15/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2142033
Diesel Range Organics (C10-C28)	ND	25.0	1	10/14/21	10/15/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/14/21	10/15/21	
Surrogate: n-Nonane		*108 %*	*50-200*	*10/14/21*	*10/15/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2142031
Chloride	**215**	20.0	1	10/14/21	10/15/21	

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/2021 1:56:36PM

Volatile Organics by EPA 8021B

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 (2142038-BLK1)									Prepared: 10/14/21 Analyzed: 10/15/21
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	7.90		8.00		98.8	70-130			
LCS (2142038-BS1)									Prepared: 10/14/21 Analyzed: 10/15/21
Benzene	4.97	0.0250	5.00		99.5	70-130			
Ethylbenzene	4.78	0.0250	5.00		95.6	70-130			
Toluene	4.97	0.0250	5.00		99.3	70-130			
o-Xylene	4.86	0.0250	5.00		97.1	70-130			
p,m-Xylene	9.73	0.0500	10.0		97.3	70-130			
Total Xylenes	14.6	0.0250	15.0		97.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.90		8.00		98.7	70-130			
LCS Dup (2142038-BSD1)									Prepared: 10/14/21 Analyzed: 10/15/21
Benzene	5.04	0.0250	5.00		101	70-130	1.42	20	
Ethylbenzene	4.85	0.0250	5.00		97.0	70-130	1.51	20	
Toluene	5.04	0.0250	5.00		101	70-130	1.40	20	
o-Xylene	4.93	0.0250	5.00		98.6	70-130	1.52	20	
p,m-Xylene	9.88	0.0500	10.0		98.8	70-130	1.53	20	
Total Xylenes	14.8	0.0250	15.0		98.7	70-130	1.53	20	
Surrogate: 4-Bromochlorobenzene-PID	7.74		8.00		96.8	70-130			

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/2021 1:56:36PM

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 (2142038-BLK1)									Prepared: 10/14/21 Analyzed: 10/15/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.41*		*8.00*		*92.6*	*70-130*			
LCS (2142038-BS2)									Prepared: 10/14/21 Analyzed: 10/15/21
Gasoline Range Organics (C6-C10)	52.5	20.0	50.0		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.60*		*8.00*		*95.0*	*70-130*			
LCS Dup (2142038-BSD2)									Prepared: 10/14/21 Analyzed: 10/15/21
Gasoline Range Organics (C6-C10)	52.9	20.0	50.0		106	70-130	0.868	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.53*		*8.00*		*94.1*	*70-130*			

QC Summary Data

Logos Resources	Project Name:	Rosa Unit 218	**Reported:**
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	10/15/2021 1:56:36PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2142033-BLK1)							Prepared: 10/14/21 Analyzed: 10/14/21		
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*54.5*		*50.0*		*109*	*50-200*			
LCS (2142033-BS1)							Prepared: 10/14/21 Analyzed: 10/14/21		
Diesel Range Organics (C10-C28)	564	25.0	500		113	38-132			
Surrogate: n-Nonane	*55.1*		*50.0*		*110*	*50-200*			
LCS Dup (2142033-BSD1)							Prepared: 10/14/21 Analyzed: 10/14/21		
Diesel Range Organics (C10-C28)	582	25.0	500		116	38-132	2.99	20	
Surrogate: n-Nonane	*55.4*		*50.0*		*111*	*50-200*			

Project Information

Chain of Custody

Page 1 of 1

Client: LOGOS Resources II, LLC	
Project: Rosa Unit 218	
Project Manager: Robert Jordan	
Address: 2010 Afton Place	
City, State, Zip Farmington, NM 87401	
Phone: 505-320-1395	
Email: rjordan@logosresourcesllc.com	
Report due by:	

Bill To

Attention: Robert Jordan	
Address: 2010 Afton Place	
City, State, Zip Farmington NM 87401	
Phone: 505-324-4145	
Email: etrujillo@logosresourcesllc.com	
etrujillo@logosresourcesllc.com	
mflorez@logosresourcesllc.com	

Lab Use Only

Lab WO# PETC0067 — Job Number 12035-0114

TAT: 1D X, 3D

EPA Program: RCRA, CWA, SDWA

State: NM, CO, UT, AZ, TX, OK

Analysis and Method

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	Remarks
10:00	10/14/2021	S	1-4oz jar	CS 1 @ Base West	1	X	X	X			X	
10:04	10/14/2021	S	1-4oz jar	CS 2 @ Base East	2	X	X	X			X	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]						

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: Mariel Florez

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
Mariel Florez	10/14/21	12:30		10/14/21	12:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

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 Analytical Laboratory

5795 US Highway 64, Farmington, NM 87401

24 Hour Emergency Response Phone (800) 362-1879

Ph: (505) 632-1881 Fx: (505) 632-1865

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labadmin@envirotech-inc.com

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Envirotech Analytical Laboratory

Printed: 10/14/2021 1:39:34PM

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:	Logos Resources	Date Received:	10/14/21 12:30	Work Order ID:	E110067
Phone:	(505) 320-1395	Date Logged In:	10/14/21 13:36	Logged In By:	Alexa Michaels
Email:	rjordan@logosresourcesllc.com	Due Date:	10/15/21 17:00 (1 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
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

Carrier: Marie Florez

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.

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1625 N. French Dr., Hobbs, NM 88240
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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 130126

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 130126
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	8/26/2022