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	nCS1929538744
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party LOGOS Operating, LL	OGRID 289408
Contact Name Marie E. Florez	Contact Telephone 505-419-8420
Contact email mflorez@logosresourcesllc.com	Incident # *(assigned by OCD)* nCS1929538744
Contact mailing address 2010 Afton Place, Farmington NM 87401	

Location of Release Source

Latitude 36.8777504 Longitude -107.2987595
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Rosa Unit 315A	Site Type Well Site
Date Release Discovered 9/6/2019	API# *(if applicable)* 30-039-29983

Unit Letter	Section	Township	Range	County
C	30	31N	4W	Rio Arriba

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* NMSF078774)

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) unknown	Volume Recovered (bbls) 2bbls
	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 Correction to the submittal on 10/02/2019.
The cause of the release was due to the water tank being corroded. NMOCD inspector found a release for production tank overflow standing hydrocarbons in containment estimated 1-2bbls. Historic staining in containment appears to have been up to approximately 2-3 inches deep off staining around base of tank, included staining downside of tank from thief hatch. Appears that an historic estimate release had been greater than 25 bbls.

State of New Mexico
Oil Conservation Division

Incident ID	nCS1929538744
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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: Marie E. Florez Title: Regulatory Specialist

Signature: Marie E. Florez Date: 3/3/2021

email: mflorez@logosreourcesllc.com Telephone: 505-419-8420

OCD Only

Received by: _____ Date: _____

Incident ID	nCS1929538744
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?	71' (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	nCS1929538744
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: Marie E. Florez Title: Regulatory Specialist

Signature: Marie E. Florez Date: 3/3/2021

email: mflorez@logosrerourcesllc.com Telephone: 505-419-8420

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nCS1929538744
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.***

[x] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[x] 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)

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

[x] 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: Marie E. Florez Title: Regulatory Specialist

Signature: Marie E. Florez Date: 3/3/2021

email: mflorez@logosresroucesllc.com Telephone: 505-419-8420

OCD Only

Received by: _____ Date: _____

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: 03/22/2022

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

March 1, 2021

Cory Smith
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Incident # nCS1929538744
API: 30-039-29983
Well Site: Rosa Unit 315A Located in Section 30, Township 31 North, Range 4 West, 5 FNL & 1675 FWL, Rio Arriba New Mexico.

RE: On September 6, 2019, NMOCD inspector found a release for production tank overflow standing hydrocarbons in containment estimated 1-2bbls. Historic staining in containment appears to have been up to approximately 2-3 inches deep off staining around base of tank, included staining downside of tank from thief hatch. Appears that an historic estimate release had been greater than 25 bbls.

Dear Mr. Smith,

Due to staff changes the dates may not be accurate or pictures may be missing between September 6, 2019 thru March 3, 2020.

On September 6, 2019 LOGOS was informed regarding the release. LOGOS immediately ensured the release was contained and the well was shut in. Kelley Oilfield Services began cleaning up and pulled the fluid from the ground of the estimated 1-2bbls reported. They cleaned the tank and sprayed simple green around the affected area.

On September 10, 2019 Kelley Oilfield Services continued to clean the affected area by digging holes to pull water out with a steam cleaner and sprayed more simple green to clean oil off the gravel.

On November 6, 2019 Kelley Oilfield Services removed the fence, berm, dump line, stairway and removed water tank due to being corroded. Installed with a different water tank, stairway, top rail, berm, and fence. On November 8, 2019, one bag of oil sponge Micro-absorb AB2000 was spread on the affected area and raked into the gravel.

After the tank replacement LOGOS employees noticed about a gallon of fluid leaking from the tank. The operator immediately shut-in the well.

On November 18, 2019 Cory (NMOCD) and Larissa Farrell (LOGOS) went to location to conduct confirmation sampling. LOGOS operators and roustabout crew was still in the process of cleaning up the

location and was not informed regarding the sampling. The location was not ready to be tested at this time.

On December 5, 2019 LOGOS, requested an extension until March 31, 2020 to ensure tank was repaired and location was cleaned up.

On December 20 thru 27 2019 Knockout roustabout crew removed the fence, pulled the fluid, and removed the tank once again. The roustabout crew removed 3' of the contaminated soil and gravel. The Knockout roustabout crew power washed, sandblasted floor bottom, repaired by welding plates on the holes and coated the tank by spraying poly.

Notification to NMOCD and BLM for final sampling was requested to be performed on January 14, 2020 at 10:30am.

On January 15, 2020 LOGOS received the results from sample with high content levels. NMOCD denied the C-141 closure submitted on February 4, 2020 from the results due to no confirmation of the sampling depth of the delineations point and the residual HC impacts were above 100 TPH reclamation that need to have some type of plan for remediation. The site characterization did not meet the requirements of 19.15.29 NMAC. Per NMOCD email, LOGOS had until July 28, 2020 to comply with all requirements per rule 19.15.29 NMAC. Per the original results on January 15, 2019 identified the Chloride content between 686 and 1700 mg/kg which was above the remediation level.

In March 2020, due to the high chloride content level between 686 and 1700 mg/kg LOGOS spread an additional (2) bags of Gypsum and Micro-absorb AB2000, the pumper monitored and raked in throughout the spring and summer months.

Notification for final sampling was requested to be performed on July 2, 2020. LOGOS arrived at the site to conduct site delineation activities from the release/historical produced water release that occurred at the **Rosa Unit 315A well site (30-039-29983).** The operator utilized a hand auger (4) soil borings, SB-1 thru SB-4, were advanced into the subsurface within the earthen berm containment. Delineation activities are documented in the enclosed Aerial Site map, and Figure 1 – Site pictures.

Per the 2nd sample results identified the Chloride content between 602 and 640 mg/kg which is still above the remediation level. Therefore LOGOS, requested an additional 60 days that started July 22 to spread additional bags of Gypsum to continue treating the soil to allow for the Chloride content levels to be reduced.

Soil samples were collected at 2-foot intervals in each boring.

SB-1@2'	SB-2@2'	SB-3@2'	SB-4@2'
SB-1@4'	SB-2@4'	SB-3@4'	SB-4@4'

The samples were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH as gasoline diesel, and oil range organics (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.

Final Sample Results								
Sample Description	Date	Sample Depth	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'	7/2/2020	2 foot	ND	ND	ND	ND	ND	640
SB-1 @ 4'	7/2/2020	4 foot	ND	ND	ND	ND	ND	**410**
SB-2 @ 2'	7/2/2020	2 foot	ND	ND	ND	ND	ND	**189**
SB-2 @ 4'	7/2/2020	4 foot	ND	ND	ND	ND	ND	**421**
SB-3 @ 2'	7/2/2020	2 foot	ND	ND	ND	ND	ND	**424**
SB-3 @ 4'	7/2/2020	4 foot	ND	ND	ND	ND	ND	**441**
SB-4 @ 2'	7/2/2020	2 foot	ND	ND	ND	ND	ND	602
SB-4 @ 4'	7/2/2020	4 foot	ND	ND	ND	ND	ND	**342**

Notification for final sampling was requested to be performed on September 10, 2020. LOGOS arrived at the site on to conduct site delineation activities from the release/historical produced water release that occurred at the **Rosa Unit 315A well site (30-039-29983).** The operator utilized a hand auger (2) soil borings, SB-1, and SB-4, were advanced into the subsurface within the earthen berm containment. Per the 3rd sample results identified once again with the Chloride content between **604 and 754 mg/kg** which is still above the remediation level. Therefore, LOGOS requested an additional 60 days that started from September 23. This allowed LOGOS to spread additional bags of Gypsum to treat the soil and continuously raking the affected area, so the concentration level be reduced.

Soil samples were collected at 2-foot intervals in each boring. The samples were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for and chlorides using EPA Method 300.0.

SB-1@2'
SB-4@2'

Notification for final sampling was requested to be performed on December 9, 2020. LOGOS arrived at the site to conduct site delineation activities from the release/historical produced water release that occurred at the **Rosa Unit 315A well site (30-039-29983).** The operator utilized a hand auger (2) soil borings, SB-1 and SB-4, were advanced into the subsurface within the earthen berm containment. Delineation activities are documented in the enclosed Aerial Site map, and Figure 1 – Site pictures.

Soil samples were collected at 2-foot intervals in each boring.

SB-1@2'
SB-4@2'

The samples were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for and chlorides using EPA Method 300.0.

Final Sample Results								
Sample Description	Date	Sample Depth	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'	12/9/2020	2 foot	ND	ND	ND	ND	ND	**76.6**
SB-4 @ 2'	12/9/2020	2 foot	ND	ND	ND	ND	ND	**76.3**

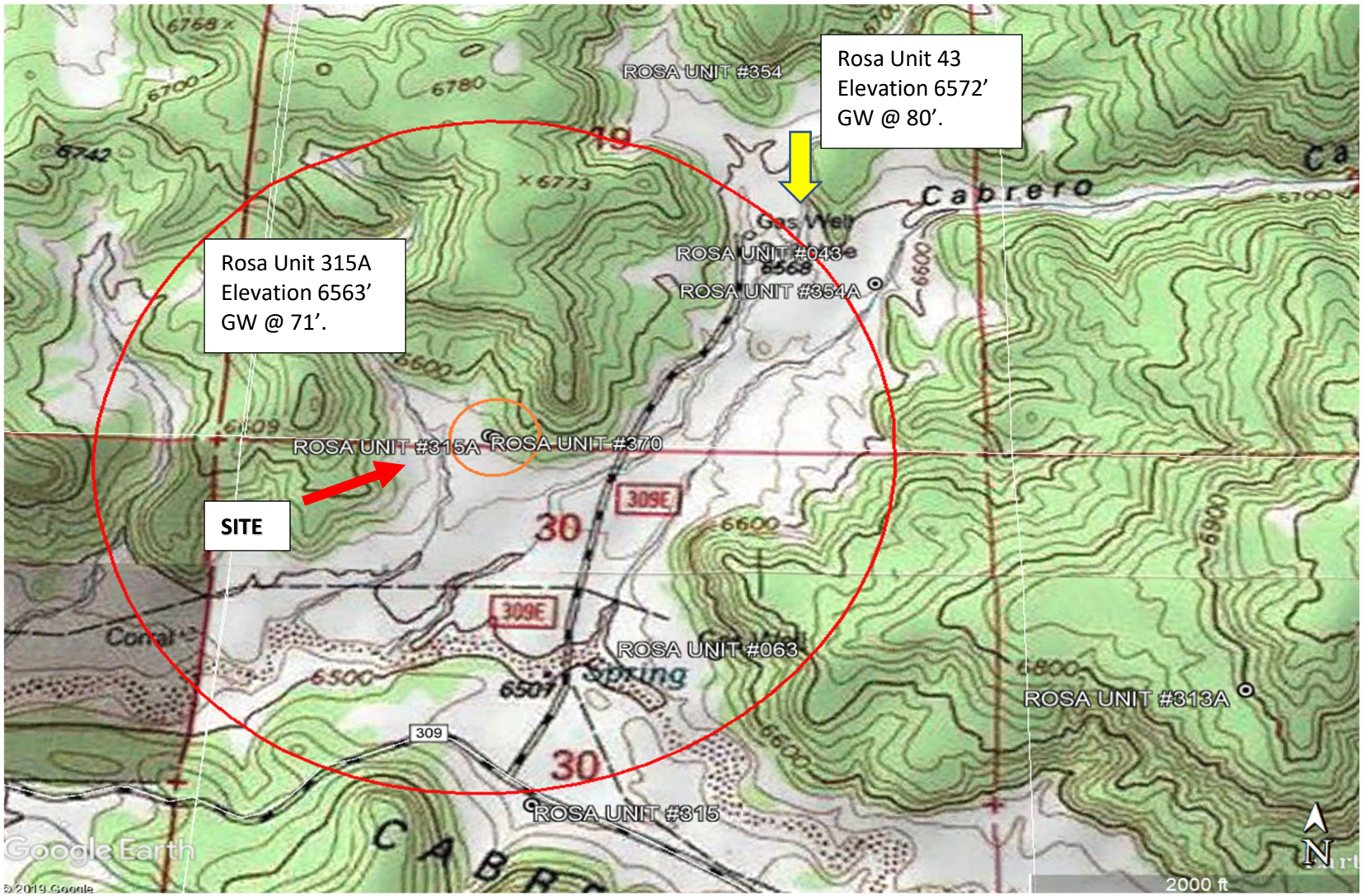
The release was contained in the secondary containment of an active well site, depth to groundwater was assessed as being 71' feet. The groundwater data is documented in the enclosed TOPO Site Criteria. The ground water was identified @ 80' from Rosa Unit 43 with an elevation of 6572' and an elevation for the Rosa Unit 315A is at 6563' with an estimated GW @ 71'.

Therefore, based on the site delineation 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,

Marie E. Florez

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



Legend

- ½ mile radius
- 300' radius

LOGOS Operating, LLC – Rosa Unit 315A
Hydrology Map
Unit E, Section 23, T31N, R5W
Rio Arriba County, NM

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

OPERATOR: Williams Production Company LOCATION: J 19 31 4 LEASE NUMBER: SF-078889

NAME OF WELL/WELLS OR PIPELINE SERVICED: ROSA UNIT #043 DK 30-039-07954
DUALWELL N/A

ELEVATION: 6572' GR COMPLETION DATE: 10/20/87 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: 80 ' Water zone thickness not available. WATER DESCRIPTION: Fresh

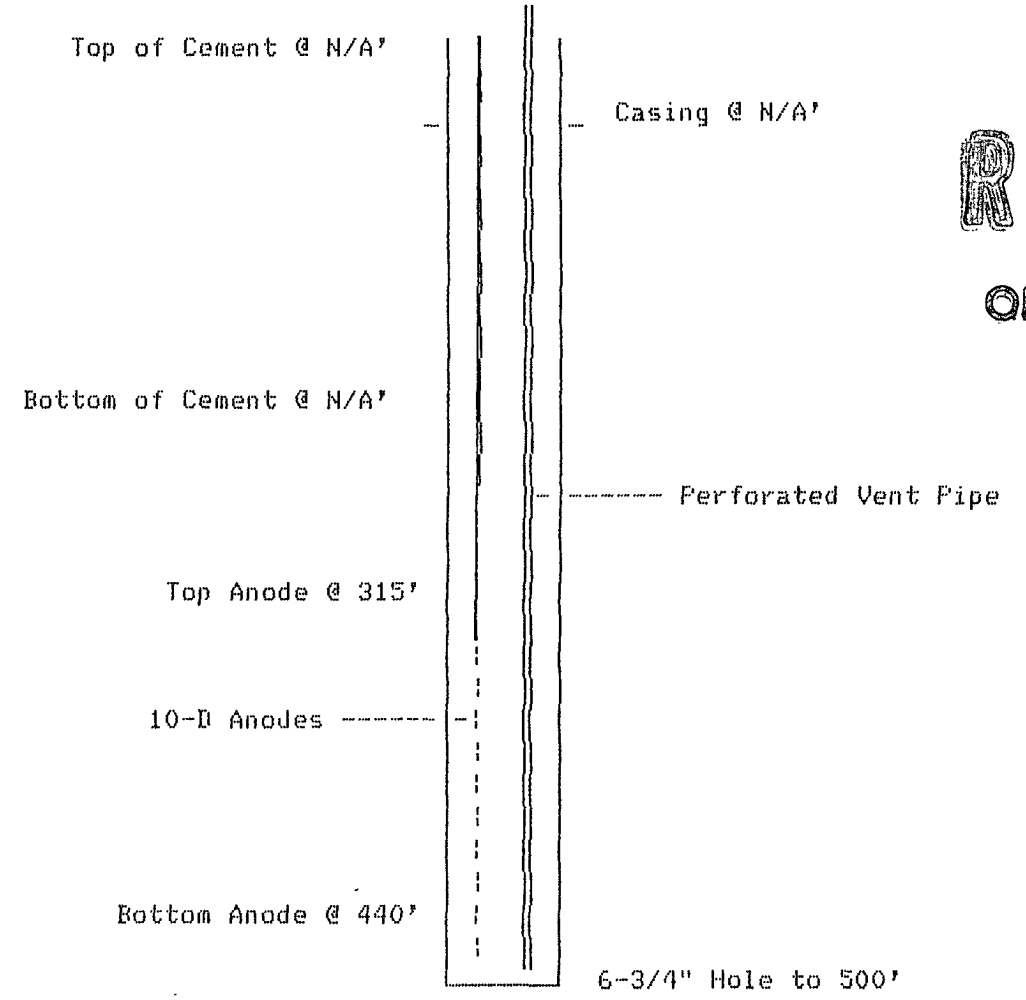
DEPTH OF GAS: N/A '

COKE: 6345 lbs. of Metalurgical coke breeze used.

NUMBER & TYPE OF ANODES: 10-D TOP ANODE @ 315 ft. BOTTOM ANODE @ 440 ft.

VENT PIPE: 1" PVC Set @ 500 ft. Vent pipe perforated from 295 ft. to 500 ft.

REMARKS: _____



LOCATION Rosa #43

DATE 8-11-87

10	130 1.51	250 1.07	370 1.17	490
15	135 1.21	255 .81	375 1.41	495
20	140 1.23	260 1.05	380 1.35	500
25	145 1.09	265 .91	385 1.10	505
30	150 .79	270 .87	390 1.22	510
35	155 1.14	275 .85	395 1.33	
40	160 1.33	280 .88	400 1.51	
45	165 1.33	285 .91	405 1.28	
50	170 1.28	290 .92	410 1.24	
55	175 1.41	295 .76	415 1.41	
60	180 1.48	300 .87	420 1.27	
65	185 1.39	305 .88	425 .93	
70	190 1.36	310 1.25	430 1.05	
75	195 1.09	315 1.40	435 1.37	
80 1.08	200 1.07	320 1.15	440 1.46	
85 1.09	205 1.17	325 1.39	445 1.70	
90 1.06	210 1.38	330 1.25	450 1.82	
95 1.23	215 1.47	335 1.26	455 1.98	
100 1.26	220 1.62	340 1.38	460 1.85	
105 1.35	225 1.57	345 1.20	465 1.76	
110 1.27	230 1.55	350 1.26	470 1.72	
115 1.0	235 1.45	355 1.24	475 1.68	
120 1.30	240 1.19	360 1.40	480 1.57	
125 1.48	245 1.08	365 1.44	485	

Mud

Total Amps 13.3
Total Volts 10.46

Total Res. .78

Caving trouble had to pull rods up.

LOCATION Rosa #43

DATE 8-11-87

10	130 1.51	250 1.07	370 1.17	490
15	135 1.21	255 .81	375 1.41	495
20	140 1.23	260 1.05	380 1.35	500
25	145 1.09	265 .91	385 1.10	505
30	150 .79	270 .87	390 1.22	510
35	155 1.14	275 .85	395 1.33	
40	160 1.33	280 .88	400 1.51	
45	165 1.33	285 .91	405 1.28	
50	170 1.28	290 .92	410 1.24	
55	175 1.41	295 .76	415 1.41	
60	180 1.48	300 .87	420 1.27	
65	185 1.39	305 .88	425 .93	
70	190 1.36	310 1.25	430 1.05	
75	195 1.09	315 1.40	435 1.37	
80 1.08	200 1.07	320 1.15	440 1.46	
85 1.09	205 1.17	325 1.39	445 1.70	
90 1.66	210 1.38	330 1.25	450 1.82	
95 1.23	215 1.47	335 1.26	455 1.98	
100 1.26	220 1.62	340 1.38	460 1.85	
105 1.35	225 1.57	345 1.20	465 1.76	
110 1.27	230 1.55	350 1.26	470 1.72	
115 1.0	235 1.45	355 1.24	475 1.68	
120 1.30	240 1.19	360 1.40	480 1.57	
125 1.48	245 1.08	365 1.44	485	

Mud

Total Amps 13.3
Total Volts 10.46
Total Res. .78

Caving trouble had to pull bucket up.

Secondary Containment

Soil Boring

90 ft

Scale

LOGOS RESOURCES II, LLC

Well Name: Rosa Unit 315A
API: 30-039-29983
Section: 30 Township: 31N Range: 4W Unit: C
Aerial Site Map

03/03/2020

Field Notes for Spill Closure

Well Name: Rosa Unit 315A

Date of Arrival: 7/2/2020

Observe Area

Removed contaminated soils [ ] Yes [x] No

What chemical was used to clean-up contaminated area:
9/2019 sprayed simple green. 11/2019 Spread Micro absorb AB2000. 3/2020 spread gypsum micro AB2000. 7/2020 spread gypsum. 9/2020 Spread more gypsum.

Take Picture: [x] Before [x] After

Entire Spill Containment: [x] Dry [ ] Wet

If wet:
Rain, Moist, etc... Pulled remainder of fluid / water and replaced tank and repaired tank.

Site Delineation

[ ] **Sample 1:**
Composite (Grab Sample) [ ] Yes [ ] No

Was (2) five-point sample taken: [ ] Yes [ ] No

[x] **Sample 2:**
Delineation (Hand Auger) [x] Yes [ ] No

Depths								
	SB - 1	[ ]	1'	[x]	2'	[ ]	3'	[x] 4'
	SB - 2	[ ]	1'	[x]	2'	[ ]	3'	[x] 4'
	SB - 3	[ ]	1'	[x]	2'	[ ]	3'	[x] 4'
	SB - 4	[ ]	1'	[x]	2'	[ ]	3'	[x] 4'

Soil

Did soil have odor: [ ] Yes [x] No

If so, what kind of odor:
no bad odor

Was soil discolored: [x] Yes [ ] No

If so, what color:
Staining brown -in 2019 remediated before replacing tank.

Was the soil sandy: [ ] Yes [x] No

Field Notes for Spill Closure

Well Name: Rosa Unit 315A

Date of Arrival: 9/10/2020

Observe Area

Removed contaminated soils [ ] Yes [x] No

What chemical was used to clean-up contaminated area:
9/2019 sprayed simple green. 11/2019 Spread Micro absorb AB2000.
3/2020 spread gypsum micro AB2000. 7/2020 spread gypsum.
9/2020 Spread more gypsum.

Take Picture: [x] Before [x] After

Entire Spill Containment: [x] Dry [ ] Wet

If wet:
Rain, Moist, etc...

Site Delineation

[ ] **Sample 1:**
Composite (Grab Sample) [ ] Yes [ ] No

Was (2) five-point sample taken: [ ] Yes [ ] No

[x] **Sample 2:**
Delineation (Hand Auger) [x] Yes [ ] No

Depths								
	SB - 1	[ ]	1'	[x]	2'	[ ]	3'	[ ] 4'
	SB - 2	[ ]	1'	[ ]	2'	[ ]	3'	[ ] 4'
	SB - 3	[ ]	1'	[ ]	2'	[ ]	3'	[ ] 4'
	SB - 4	[ ]	1'	[x]	2'	[ ]	3'	[ ] 4'

Soil

Did soil have odor: [ ] Yes [x] No

If so, what kind of odor:
no bad odor

Was soil discolored: [x] Yes [ ] No

If so, what color:
Staining brown -in 2019 remediated before replacing tank.

Was the soil sandy: [ ] Yes [x] No

Field Notes for Spill Closure

Well Name: Rosa Unit 315A

Date of Arrival: 12/09/2020

Observe Area

Removed contaminated soils [ ] Yes [x] No

What chemical was used to clean-up contaminated area:
9/2019 sprayed simple green. 11/2019 Spread Micro absorb AB2000. 3/2020 spread gypsum micro AB2000. 7/2020 spread gypsum. 9/2020 Spread more gypsum.

Take Picture: [x] Before [x] After

Entire Spill Containment: [x] Dry [ ] Wet

If wet:
Rain, Moist, etc...

Site Delineation

[ ] **Sample 1:**
Composite (Grab Sample) [ ] Yes [ ] No

Was (2) five-point sample taken: [ ] Yes [ ] No

[x] **Sample 2:**
Delineation (Hand Auger) [x] Yes [ ] No

Depths								
	SB - 1	[ ]	1'	[x]	2'	[ ]	3'	[ ] 4'
	SB - 2	[ ]	1'	[ ]	2'	[ ]	3'	[ ] 4'
	SB - 3	[ ]	1'	[ ]	2'	[ ]	3'	[ ] 4'
	SB - 4	[ ]	1'	[x]	2'	[ ]	3'	[ ] 4'

Soil

Did soil have odor: [ ] Yes [x] No

If so, what kind of odor:
no bad odor

Was soil discolored: [x] Yes [ ] No

If so, what color:
Staining brown -in 2019 remediated before replacing tank.

Was the soil sandy: [ ] Yes [x] No

Marie Florez

From: Larissa Farrell <lfarrell@logosresourcesllc.com>
Sent: Wednesday, March 3, 2021 4:20 PM
To: Marie Florez
Subject: Fw: Rosa Unit 315A
Attachments: IMG_0631.jpg; IMG_0632.jpg; IMG_0633.jpg

From: Larissa Farrell
Sent: Monday, November 18, 2019 3:42 PM
To: Robert Bixler; Robert Jordan
Cc: John Bruner
Subject: Rosa Unit 315A

Good afternoon,

Cory (NMOCD) and I went to conduct confirmation sampling at the Rosa Unit 315A today. Unfortunately, the area within the secondary containment was not in condition to be sampled for final closure. Every hole that was dug instantly filled up with water that had an oil sheen on top. I have attached the pictures that were taken from today. The original release was discovered on September 6, 2019. The spill rule states that we have 90 days to have final closure submitted unless a remediation plan is on file with an approved extension. Please let me know how you want to proceed with this location. Is there any way to pump this fluid out?

Thank you,

Larissa Farrell
Environmental/Regulatory Technician
Office: (505) 787-2027
Cell: (505) 419-1100
lfarrell@logosresourcesllc.com

Marie Florez

From: Marie Florez
Sent: Tuesday, June 30, 2020 8:43 AM
To: Smith, Cory, EMNRD; Powell, Brandon, EMNRD
Cc: Robert Jordan; Tamra Sessions
Subject: Rosa Unit 315A - Notification for final sampling

Importance: High

LOGOS is notifying OCD two business days prior to conducting final sampling on the following well.

Date: July 3, 2020 (Thursday)
Time: 07:30am

Incident # nCS1929538744

API: 30-039-29983
Well Name: Rosa Unit 315A
Section: 30
Township:31N
Range: 4W
Unit Letter: C

Thanks,

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

Marie Florez

From: Marie Florez
Sent: Tuesday, September 8, 2020 8:30 AM
To: Smith, Cory, EMNRD
Cc: Tamra Sessions; Robert Jordan
Subject: RE: Rosa Unit 315A Notification for final sampling

Importance: High

LOGOS is notifying OCD two business days prior to conducting final sampling on the following well.

Date: September 10, 2020 (Thursday)
Time: 08:00am

Incident # nCS1929538744

API: 30-039-29983
Well Name: Rosa Unit 315A
Section: 30
Township:31N
Range: 4W
Unit Letter: C

Thanks,

Marie E. Florez
mflorez@logosresourcesllc.com
LOGOS RESOURCES II, LLC

From: Marie Florez
Sent: Tuesday, July 21, 2020 12:51 PM
To: 'Smith, Cory, EMNRD'
Cc: Tamra Sessions; Robert Jordan
Subject: RE: Rosa Unit 315A Deferral Request Denied nCS129538744
Importance: High

Corey,

Per our phone conversation today, LOGOS is requesting an additional 60 days starting from 7/22/2020 to allow time for the Chloride concentration to continue reducing the content level.

The original results from 1/15/2019, identifies the Chloride content between 686 and 1700 which is above the remediation level of 600 mg/kg. In October 2019, LOGOS added Microabsorb AB2000 and then in March 2020, Gypsum was added and Mircroabsorb AB2000 was added again. With the chemical spread this allowed the content to be reduced between 602 and 640 mg/kg.

Marie Florez

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Monday, December 7, 2020 8:25 AM
To: Marie Florez
Cc: Tamra Sessions; Robert Jordan
Subject: RE: Rosa Unit 315A Extension request - nCS129538744 - Final sampling notification

Marie,

Thank you for the notification for confirmation sampling on Wednesday 9, 2020 at 8AM at incident# nCS1929538744. If an OCD representative is not onsite at the proposed sampling time please continue to sample per 19.15.29 NMAC. If the date/time changes please contact OCD ASAP so we can adjust our schedules.

Thank you,

Cory Smith • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1000 Rio Brazos | Aztec, NM 87410
505.334.6178 x115 | Cory.Smith@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Monday, December 7, 2020 6:22 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 315A Extension request - nCS129538744 - Final sampling notification
Importance: High

Corey,

LOGOS is notifying OCD two business days prior to conducting final sampling on the following well.

Date: Wednesday 9, 2020 (Wednesday)
Time: 08:00am

Incident # nCS1929538744

API: 30-039-29983
Well Name: Rosa Unit 315A
Section: 30
Township:31N
Range: 4W
Unit Letter: C

Thanks,

Marie E. Florez
mflorez@logosresourcesllc.com

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Thursday, September 24, 2020 9:20 AM
To: Marie Florez <mflorez@logosresourcesllc.com>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: RE: Rosa Unit 315A Extension request - Deferral Request Denied nCS129538744

Marie,

Looks like there was a copy and paste error in the original incident# here is the correct one NCS1929538744.

OCD approves the extension request with the following conditions of approval.

- Logos will apply gypsum at a minimum of 1' deep and till the soils at a minimum monthly.
- Logos will submit a closure report no later than January 1, 2021.

OCD also recommends that Logos apply water (preferable potable or clean water that is low in chlorides.) water over the gypsum raked area at least monthly to assist in the remediation. With the lack of precipitation over the summer months and the possibility of low precipitation in winter this would significantly increase the chances of success.

Please include this approval in your final C-141 in addition keep this email approval for your records as a paper copy will not be sent. If you have any additional questions please give me a call.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Wednesday, September 23, 2020 2:33 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 315A Extension request - Deferral Request Denied nCS129538744

Here you go Cory!

Marie E. Florez
mflorez@logosresourcesllc.com

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Wednesday, September 23, 2020 2:20 PM

To: Marie Florez <mflorez@logosresourcesllc.com>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: RE: Rosa Unit 315A Extension request

Marie,

Please include the incident# and the laboratory results.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Wednesday, September 23, 2020 2:12 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 315A Extension request
Importance: High

Corey,

After, treating the area during the months of July thru September the results from the 3rd test was identified once again with the Chloride content between 604 and 754 mg/kg which is still above the remediation level of 600 mg/kg.

Therefore, LOGOS is requesting an additional 60 days starting from 9/23/2020. This is to allow time for the Chloride concentration level to be reduced by adding more Gypsum to treat the soil and continuously raking the affected area.

3/2020-Added Gypsum and Micro-absorb AB2000.
7/2/2020- 2nd results identified the Chloride content between 602 and 640 mg/kg which is above the remediation level of 600 mg/kg.

10/2019- Added Micro-absorb AB2000
1/15/2019 original results identified the Chloride content between 686 and 1700 which is above the remediation level of 600 mg/kg.

Thanks,

Marie E. Florez
mflorez@logosresourcesllc.com
LOGOS RESOURCES II, LLC

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Tuesday, July 21, 2020 1:15 PM

To: Marie Florez <mflorez@logosresourcesllc.com>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: RE: Rosa Unit 315A Deferral Request Denied nCS129538744

Marie,

OCD approves the extension request please submit the full closure report no later than September 25, 2020.

Please include this approval in your closure report.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Tuesday, July 21, 2020 12:49 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 315A Deferral Request Denied nCS129538744
Importance: High

Corey,

Per our phone conversation today, LOGOS is requesting an additional 60 days starting from 7/22/2020 to allow time for the Chloride concentration to continue reducing the content level.

The original results from 1/15/2019, identifies the Chloride content between 686 and 1700 which is above the remediation level of 600 mg/kg. In October 2019, LOGOS added Microabsorb AB2000 and then in March 2020, Gypsum was added and Mircroabsorb AB2000 was added again. With the chemical spread this allowed the content to be reduced between 602 and 640 mg/kg.

We will now spread additional bags of Gypsum to continue treating the soil.

Thanks,

Marie E. Florez
mflorez@logosresourcesllc.com
LOGOS RESOURCES II, LLC

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Monday, April 27, 2020 2:00 PM
To: Marie Florez
Subject: RE: Rosa Unit 315A Deferral Request Denied nCS129538744

Marie,

Forgot to include that the follow up report is required no late than July 28, 2020

Thanks

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Smith, Cory, EMNRD
Sent: Monday, April 27, 2020 1:56 PM
To: 'Marie Florez' <mflorez@logosresourcesllc.com>
Subject: Rosa Unit 315A Deferral Request Denied nCS129538744

Marie,

Again since Larissa in no longer working at Logos, OCD denied a deferral request for incident# nCS129538744 at the Rosa Unit 315A due to the following issues

- Site Characterization does not meet requirements of 19.15.29 NMAC
  No Sample depths, no information on remaining impacts, etc.

I have no clue the sampling depth of the Delineation points, there are also residual HC impacts above the 100 TPH reclamation that need to have some type of plan for remediation.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

LOGOS Operating, LLC
Site Pictures
Rosa Unit 315A
Figure 1

Well Sign

Impacted Area

Impacted Area

Impacted Area

Impacted Area

Cleaned up: Removed 3’ of soil and gravel.

Cleaned up: Removed 3’ of soil and gravel.

Sample Taken - July 2, 2020

SB-1

SB-2

SB-3

SB- 4

Sample Taken – December 9, 2020

SB-1

SB- 4

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Analytical Laboratory

Analytical Report

Report Summary

Client: Logos Resources

Samples Received: 7/2/2020

Job Number: 12035-0114

Work Order: P007007

Project Name/Location: Rosa Unit 315A

Report Reviewed By: Walter Hinchman, Laboratory Director

Date: 7/10/20

NELAP ACCREDITED TNI LABORATORY

Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted 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 NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.

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Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Sample Summary

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1 AT 2'	P007007-01A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-1 AT 4'	P007007-02A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-2 AT 2'	P007007-03A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-2 AT 4'	P007007-04A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-3 AT 2'	P007007-05A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-3 AT 4'	P007007-06A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-4 AT 2'	P007007-07A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.
SB-4 AT 4'	P007007-08A	Soil	07/02/20	07/02/20	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-1 AT 2'
P007007-01 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*98.0 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*86.9 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.6 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**640**	20.0	1	07/07/20	07/07/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-1 AT 4'
P007007-02 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*97.9 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*99.8 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.2 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**410**	20.0	1	07/07/20	07/07/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-2 AT 2'
P007007-03 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*96.9 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.2 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**189**	20.0	1	07/07/20	07/07/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-2 AT 4'
P007007-04 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*97.2 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*96.1 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.4 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**421**	20.0	1	07/07/20	07/07/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-3 AT 2'
P007007-05 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*97.4 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*100 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.6 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**424**	20.0	1	07/07/20	07/07/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-3 AT 4'
P007007-06 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*97.5 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*88.4 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**441**	20.0	1	07/07/20	07/07/20		

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Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-4 AT 2'
P007007-07 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*96.6 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*93.6 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.4 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**602**	20.0	1	07/07/20	07/07/20		

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Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

SB-4 AT 4'
P007007-08 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2028004
Benzene	ND	0.0250	1	07/07/20	07/09/20		
Toluene	ND	0.0250	1	07/07/20	07/09/20		
Ethylbenzene	ND	0.0250	1	07/07/20	07/09/20		
p,m-Xylene	ND	0.0500	1	07/07/20	07/09/20		
o-Xylene	ND	0.0250	1	07/07/20	07/09/20		
Total Xylenes	ND	0.0250	1	07/07/20	07/09/20		
Surrogate: 4-Bromochlorobenzene-PID		*97.4 %*	*50-150*	*07/07/20*	*07/09/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2028008
Diesel Range Organics (C10-C28)	ND	25.0	1	07/08/20	07/08/20		
Oil Range Organics (C28-C40)	ND	50.0	1	07/08/20	07/08/20		
Surrogate: n-Nonane		*98.3 %*	*50-200*	*07/08/20*	*07/08/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2028004
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/07/20	07/09/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.0 %*	*50-150*	*07/07/20*	*07/09/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2028005
Chloride	**342**	20.0	1	07/07/20	07/07/20		

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Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Volatile Organics by EPA 8021B - Quality Control

Analyte	Result	Reporting Limit	Spike Level	Source Result	REC	REC Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2028004-BLK1)									Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Benzene	ND	0.0250							
Toluene	ND	0.0250							
Ethylbenzene	ND	0.0250							
p,m-Xylene	ND	0.0500							
o-Xylene	ND	0.0250							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.84*		*8.00*		*98.0*	*50-150*			
LCS (2028004-BS1)									Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Benzene	4.21	0.0250	5.00		84.3	70-130			
Toluene	4.41	0.0250	5.00		88.2	70-130			
Ethylbenzene	4.36	0.0250	5.00		87.2	70-130			
p,m-Xylene	8.66	0.0500	10.0		86.6	70-130			
o-Xylene	4.31	0.0250	5.00		86.3	70-130			
Total Xylenes	13.0	0.0250	15.0		86.5	0-200			
Surrogate: 4-Bromochlorobenzene-PID	*8.05*		*8.00*		*101*	*50-150*			
Matrix Spike (2028004-MS1)				**Source: P007007-01**					Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Benzene	4.71	0.0250	5.00	ND	94.2	54.3-133			
Toluene	4.91	0.0250	5.00	ND	98.1	61.4-130			
Ethylbenzene	4.87	0.0250	5.00	ND	97.5	61.4-133			
p,m-Xylene	9.69	0.0500	10.0	ND	96.9	63.3-131			
o-Xylene	4.85	0.0250	5.00	ND	97.0	63.3-131			
Total Xylenes	14.5	0.0250	15.0	ND	96.9	0-200			
Surrogate: 4-Bromochlorobenzene-PID	*8.01*		*8.00*		*100*	*50-150*			
Matrix Spike Dup (2028004-MSD1)				**Source: P007007-01**					Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Benzene	4.48	0.0250	5.00	ND	89.5	54.3-133	5.12	20	
Toluene	4.67	0.0250	5.00	ND	93.4	61.4-130	4.97	20	
Ethylbenzene	4.65	0.0250	5.00	ND	93.0	61.4-133	4.71	20	
p,m-Xylene	9.24	0.0500	10.0	ND	92.4	63.3-131	4.73	20	
o-Xylene	4.63	0.0250	5.00	ND	92.6	63.3-131	4.68	20	
Total Xylenes	13.9	0.0250	15.0	ND	92.4	0-200	4.72	200	
Surrogate: 4-Bromochlorobenzene-PID	*8.02*		*8.00*		*100*	*50-150*			

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Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Nonhalogenated Organics by EPA 8015D - DRO/ORO - Quality Control

Analyte	Result	Reporting Limit	Spike Level	Source Result	REC	REC Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2028008-BLK1)									Prepared & Analyzed: 07/08/20 1
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C40)	ND	50.0							
Surrogate: n-Nonane	*52.4*		*50.0*		*105*	*50-200*			
LCS (2028008-BS1)									Prepared & Analyzed: 07/08/20 1
Diesel Range Organics (C10-C28)	468	25.0	500		93.6	38-132			
Surrogate: n-Nonane	*49.1*		*50.0*		*98.2*	*50-200*			
Matrix Spike (2028008-MS1)				**Source: P007007-01**					Prepared & Analyzed: 07/08/20 1
Diesel Range Organics (C10-C28)	483	25.0	500	ND	96.6	38-132			
Surrogate: n-Nonane	*45.1*		*50.0*		*90.3*	*50-200*			
Matrix Spike Dup (2028008-MSD1)				**Source: P007007-01**					Prepared & Analyzed: 07/08/20 1
Diesel Range Organics (C10-C28)	464	25.0	500	ND	92.9	38-132	3.97	20	
Surrogate: n-Nonane	*41.9*		*50.0*		*83.9*	*50-200*			

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Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Nonhalogenated Organics by EPA 8015D - GRO - Quality Control

Analyte	Result	Reporting Limit	Spike Level	Source Result	REC	REC Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2028004-BLK1)									Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.05*		*8.00*		*88.1*	*50-150*			
LCS (2028004-BS2)									Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Gasoline Range Organics (C6-C10)	45.5	20.0	50.0		91.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.16*		*8.00*		*89.5*	*50-150*			
Matrix Spike (2028004-MS2)									**Source: P007007-01** Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Gasoline Range Organics (C6-C10)	49.2	20.0	50.0	ND	98.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.24*		*8.00*		*90.5*	*50-150*			
Matrix Spike Dup (2028004-MSD2)									**Source: P007007-01** Prepared: 07/07/20 1 Analyzed: 07/09/20 1
Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.7	70-130	8.21	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.20*		*8.00*		*89.9*	*50-150*			

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Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Anions by EPA 300.0/9056A - Quality Control

Analyte	Result	Reporting Limit	Spike Level	Source Result	REC	REC Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2028005-BLK1)									Prepared & Analyzed: 07/07/20 1
Chloride	ND	20.0							
LCS (2028005-BS1)									Prepared & Analyzed: 07/07/20 1
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2028005-MS1)					**Source: P007007-01**				Prepared & Analyzed: 07/07/20 1
Chloride	899	20.0	250	640	103	80-120			
Matrix Spike Dup (2028005-MSD1)					**Source: P007007-01**				Prepared & Analyzed: 07/07/20 1
Chloride	901	20.0	250	640	104	80-120	0.240	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 my differ slightly.

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Logos Resources	Project Name:	Rosa Unit 315A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	07/10/20 13:22

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 16

Client: **LOGOS Resources II, LLC**	**Bill To**
Project: **Rosa Unit 315A**	Attention: Robert Jordan
Project Manager: Robert Jordan	Address:
Address: 2010 Afton Place	City, State, Zip
City, State, Zip Farmington, NM 87401	Phone: 505-324-4145
Phone: 505-320-1395	Email:
Email: rjordan@logosresourcesllc.com	tsessions@logosresourcesllc.com
Report due by:	mflorez@logosresourcesllc.com

Lab Use Only		TAT		EPA Program		
Lab WO#	Job Number	1D	3D	RCRA	CWA	SDWA
P007007	120350114					

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
7:30	7/2	S	1-4oz jar	SB-1 at 2'	1	X	X	X			X							
7:35	7/2	S	1-4oz jar	SB-1 at 4'	2	X	X	X			X							
7:40	7/2	S	1-4oz jar	SB-2 at 2'	3	X	X	X			X							
7:45	7/2	S	1-4oz jar	SB-2 at 4'	4	X	X	X			X							
7:50	7/2	S	1-4oz jar	SB-3 at 2'	5	X	X	X			X							
7:55	7/2	S	1-4oz jar	SB-3 at 4'	6	X	X	X			X							
8:00	7/2	S	1-4oz jar	SB-4 at 2'	7	X	X	X			X							
8:05	7/2	S	1-4oz jar	SB-4 at 4'	8	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: Kolby

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
Kolby	7/2/2020	2:00pm	[signature]	7.2.20	14:00
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 31.2 T2 31.3 T3 30.8
AVG Temp °C

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
24 Hour Emergency Response Phone (800) 362-1879
Ph (505) 632-1881 Fx (505) 632-1865
envirotech-inc.com
labadmin@envirotech-inc.com

Report to:

Robert Jordan

5796 U.S. Hwy 64
Farmington, NM 87401

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

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Logos Operating, LLC

Project Name:	Rosa Unit 315A
Work Order:	E012037
Job Number:	12035-0114
Received:	12/9/2020

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/15/20

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 NM009792018-1 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557-19-2 for data reported.

Date Reported: 12/15/20

Robert Jordan
PO Box 18
Flora Vista, NM 87415

Project Name: Rosa Unit 315A
Workorder: E012037
Date Received: 12/9/2020 3:51:00PM

Robert Jordan,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/9/2020 3:51:00PM, under the Project Name: Rosa Unit 315A.

The analytical test results summarized in this report with the Project Name: Rosa Unit 315A 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

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Logos Operating, LLC	Project Name:	Rosa Unit 315A	**Reported:**
PO Box 18	Project Number:	12035-0114	
Flora Vista NM, 87415	Project Manager:	Robert Jordan	12/15/20 10:18

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1@ 2'	E012037-01A	Soil	12/09/20	12/09/20	Glass Jar, 4 oz.
SB-4@ 2'	E012037-02A	Soil	12/09/20	12/09/20	Glass Jar, 4 oz.

Sample Data

Logos Operating, LLC	Project Name:	Rosa Unit 315A	
PO Box 18	Project Number:	12035-0114	**Reported:**
Flora Vista NM, 87415	Project Manager:	Robert Jordan	12/15/2020 10:18:57AM

SB-1@ 2'

E012037-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: NE			Batch: 2050037
Chloride	**76.6**	20.0	1	12/11/20	12/11/20	

Sample Data

Logos Operating, LLC	Project Name:	Rosa Unit 315A	
PO Box 18	Project Number:	12035-0114	**Reported:**
Flora Vista NM, 87415	Project Manager:	Robert Jordan	12/15/2020 10:18:57AM

SB-4@ 2'

E012037-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: NE			Batch: 2050037
Chloride	**76.3**	20.0	1	12/11/20	12/11/20	

QC Summary Data

Logos Operating, LLC	Project Name:	Rosa Unit 315A	**Reported:**
PO Box 18	Project Number:	12035-0114	
Flora Vista NM, 87415	Project Manager:	Robert Jordan	12/15/2020 10:18:57AM

Anions by EPA 300.0/9056A

Analyst: NE

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2050037-BLK1)									Prepared: 12/11/20 Analyzed: 12/11/20
Chloride	ND	20.0							
LCS (2050037-BS1)									Prepared: 12/11/20 Analyzed: 12/11/20
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2050037-MS1)				**Source: E012035-01**					Prepared: 12/11/20 Analyzed: 12/11/20
Chloride	277	20.0	250	ND	111	80-120			
Matrix Spike Dup (2050037-MSD1)				**Source: E012035-01**					Prepared: 12/11/20 Analyzed: 12/11/20
Chloride	273	20.0	250	ND	109	80-120	1.16	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 Operating, LLC	Project Name:	Rosa Unit 315A	
PO Box 18	Project Number:	12035-0114	**Reported:**
Flora Vista NM, 87415	Project Manager:	Robert Jordan	12/15/20 10:18

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**	
Project: **Rosa Unit 315A**	
Project Manager: Robert Jordan	
Address: 2010 Afton Place	
City, State, Zip Farmington, NM 87401	
Phone: 505-947-4974	
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: tsessions@logosresourcesllc.com	
mflorez@logosresourcesllc.com	

Lab Use Only

Lab WO# E012037 | Job Number 120350114

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	SAR	EC	PH	PAHSIM 8270			Remarks
8:00 AM	12/9/20	S	1-4 oz. jar	SB-1 @ 2'	1						X							
8:00 AM	12/9/20	S	1-4 oz. jar	SB-4 @ 2'	2						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: Chase Pollard

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
	12/9/20	3:50 PM		12/9/20	15:51
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)
Ph (505) 632-1881 Fx (505) 632-1865
envirotech-inc.com
labadmin@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 12/9/2020 4:05:54PM

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 Operating, LLC	Date Received:	12/09/20 15:51	Work Order ID:	E012037
Phone:	(505) 947-4974	Date Logged In:	12/09/20 16:00	Logged In By:	Alexa Michaels
Email:	rjordan@logosresourcesllc.com	Due Date:	12/16/20 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: Chase Polledo
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	

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?	Yes	

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

Comments/Resolution

Email- Tsessions, Mflorez, Rjordan

Client Instruction

Email- Tsessions, Mflorez, Rjordan

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 19677

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 19677
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	3/22/2022