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	ncs1927552565
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party LOGOS Operating, LLC	OGRID 289408
Contact Name Marie E. Florez	Contact Telephone 505-419-8420
Contact email mflorez@logosresourcesllc.com	Incident # *(assigned by OCD)* ncs1927552565
Contact mailing address 2010 Afton Place, Farmington, NM 87401	

Location of Release Source

Latitude 36.8868675 Longitude -107.3385239
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Rosa Unit 322A	Site Type Well
Date Release Discovered 9/3/2019	API# *(if applicable)* 30-039-29941

Unit Letter	Section	Township	Range	County
E	23	31N	5W	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) unknown	Volume Recovered (bbls) 0
	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

OCD inspector found production tank with corrosion holes approximately 12-15 ft above base, and historical gravel discolored from prior release through corrosion holes. The area will be delineated and remediation will be conducted to the affected area.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	ncs1927552565
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
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: Date: 07/01/2020

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

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	ncs1927552565
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?	179 (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.

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	ncs1927552565
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: 7/1/2020

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

OCD Only

Received by: Date:

Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	ncs1927552565
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: Marie E. Florez Title: Regulatory Specialist

Signature: Date: 7/1/2020

email: mflorez@logosresourcesllc.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: Date:

Printed Name: Title:

July 1, 2020

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

Incident # nCS1927552565

RE: Production tank had corrosion holes approximately 12-15ft above base, with historical gravel discolored from prior release through corrosion holes at the Rosa Unit 322A well site. Located in Section 28, Township 31 North, Range 4 West, Rio Arriba, New Mexico.

Dear Mr. Smith,

On October 23, 2019, LOGOS Operating, LLC plugged and patched the corrosion holes on the production tank, pulled all remainder of rain water, spread nitrogen and sprayed simple green over the gravel. The entire area was raked in and covered with clean gravel.

A confirmation sample was scheduled and taken on November 1, 2019. This application was rejected by NMOCD due to not meeting sample requirements.

On March 3, 2020, (2) bags of 40lbs of gypsum was added and spread throughout the entire affected area due to the results over the sample limit from November 1, 2019.

LOGOS requested for an extension due to the COVID -19 shut down.

Notification for final sampling was requested to be performed on June 17, 2020, the results from this sample was rejected by Envirotech. The operator had delivered the samples in plastic Ziploc bags contradicting the results. A second notification for final sampling was scheduled for June 22, 2020.

LOGOS arrived at the site on June 24, 2020 to conduct site delineation activities for historical produced water release that occurred at the Rosa Unit 322A well site (30-039-29941). The operator utilized a hand auger four (4) soil borings, SB-1 through 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 1 foot intervals in each boring. This location area is in a sand stone rock formation which made it difficult to collect samples passed 1 foot. Sand stone area enclosed in Figure 1 Site pictures.

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

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

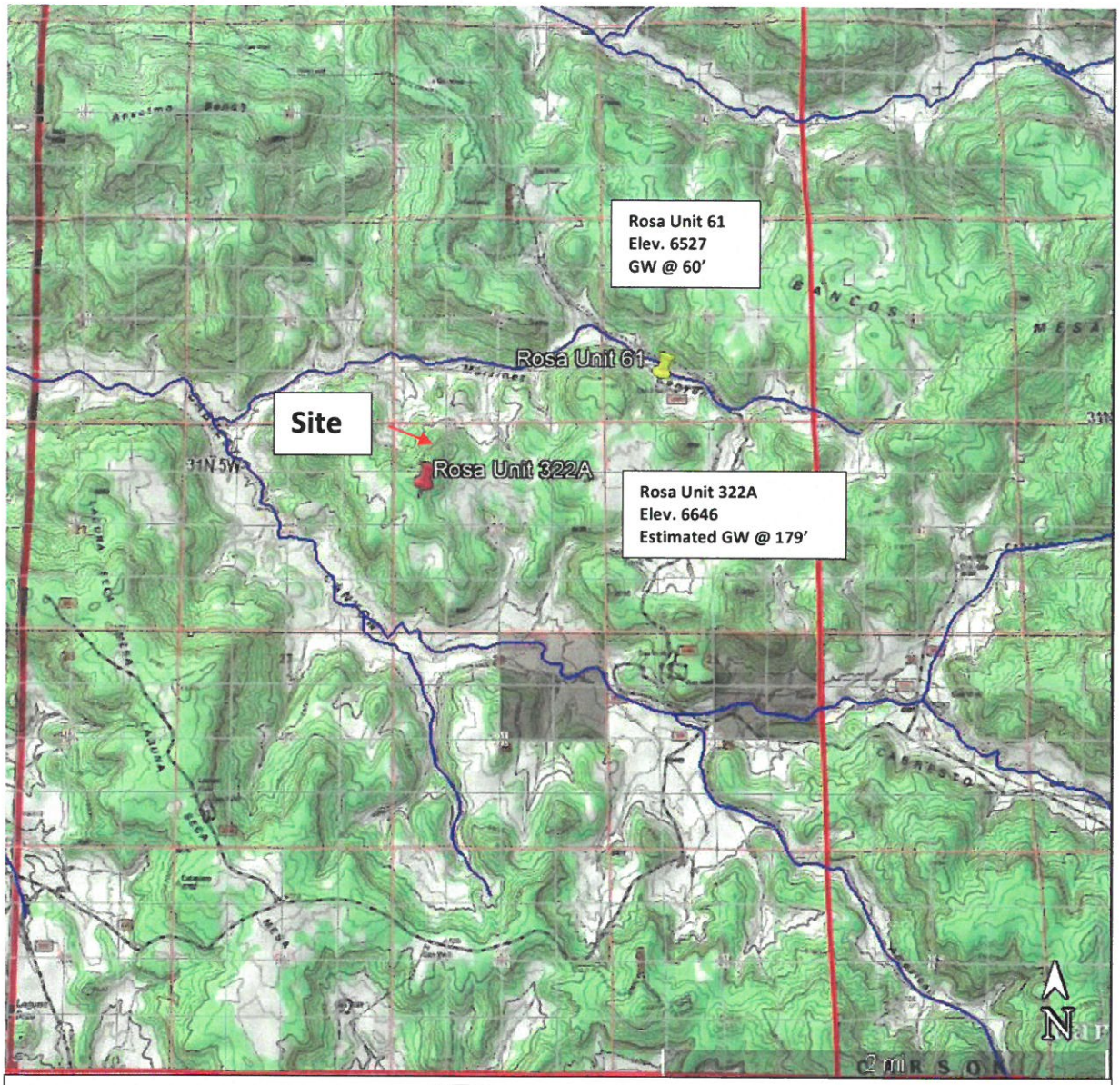
Sample Description	Date	Sample Depth	EPA Method 8015		EPA Method 8021		EPA Method 300.0	
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
19.15.29.13 (D) NMAC			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					20,000 mg/kg
			2500 mg/kg					
SB-1 @ 1'	6/24/2020	1 foot	ND	ND	ND	ND	ND	213
SB-2 @ 1'	6/24/2020	1 foot	ND	ND	ND	ND	ND	122
SB-3 @ 1'	6/24/2020	1 foot	ND	30.8	58.0	ND	ND	ND
SB-3 @ 2'	6/24/2020	2 feet	ND	ND	ND	ND	ND	ND
SB-4 @ 1'	6/24/2020	1 foot	ND	ND	ND	ND	ND	20.4

The historical release was contained in the secondary containment of an active well site, depth to groundwater was assessed as being greater than 100 feet. The groundwater data is documented in the enclosed TOPO Site Criteria. The Rosa Unit 61 has a GW @ 60' with an elevation of 6527' and an elevation for the Rosa Unit 322A is at 6646' with an estimated GW @±179'.

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 and LOGOS request a release and remediation/reclamation closure approval from NMOCD.

Sincerely,

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

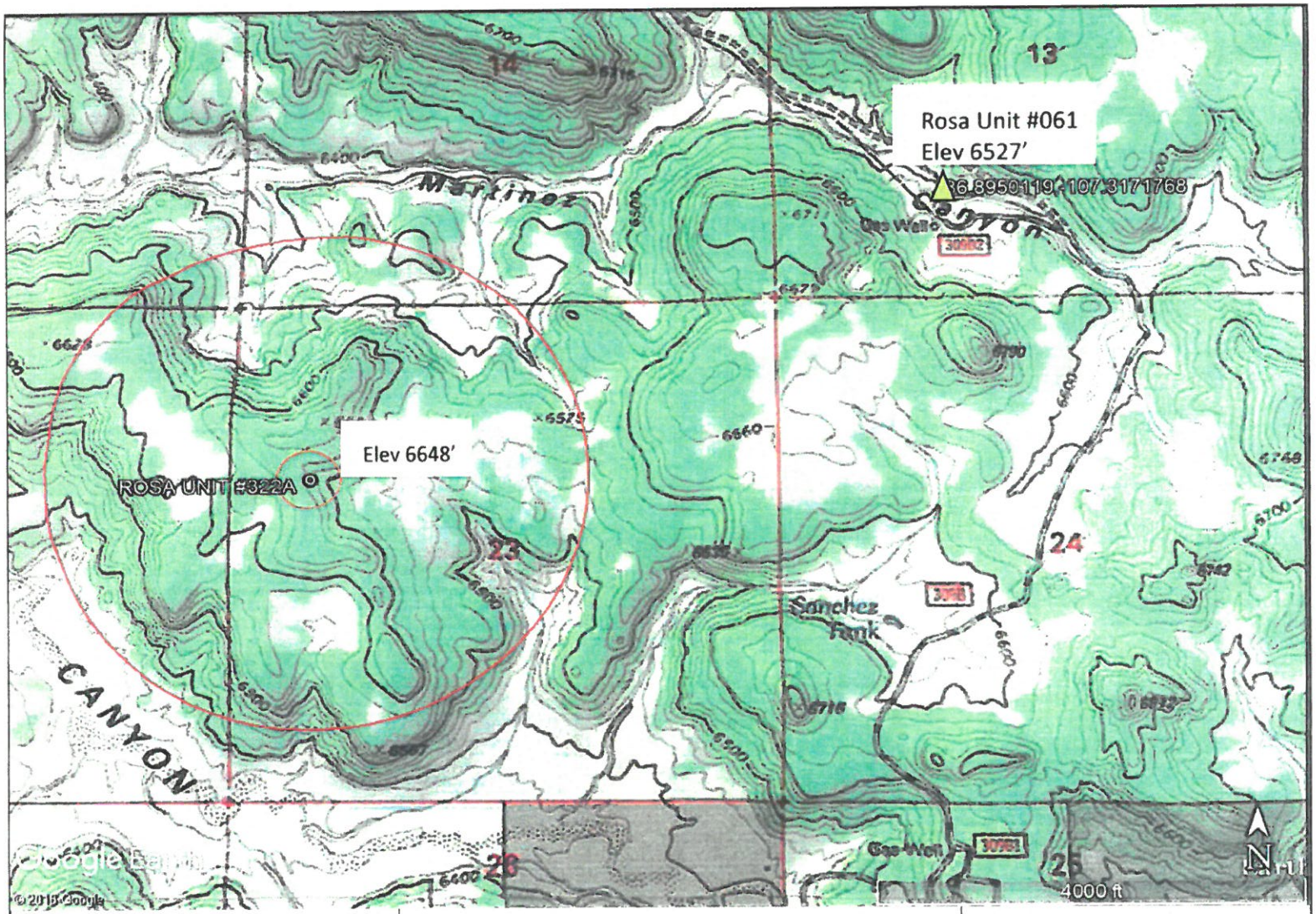


LOGOS RESOURCES II, LLC

Well Name: Rosa Unit 322A
API: 30-039-29941
Section: 23 Township: 31N Range: 5W Unit: E
Lat: 36.8868675 Long: -107.3385239 NAD 83

TOPO Site Map
07/01/2020

Scale

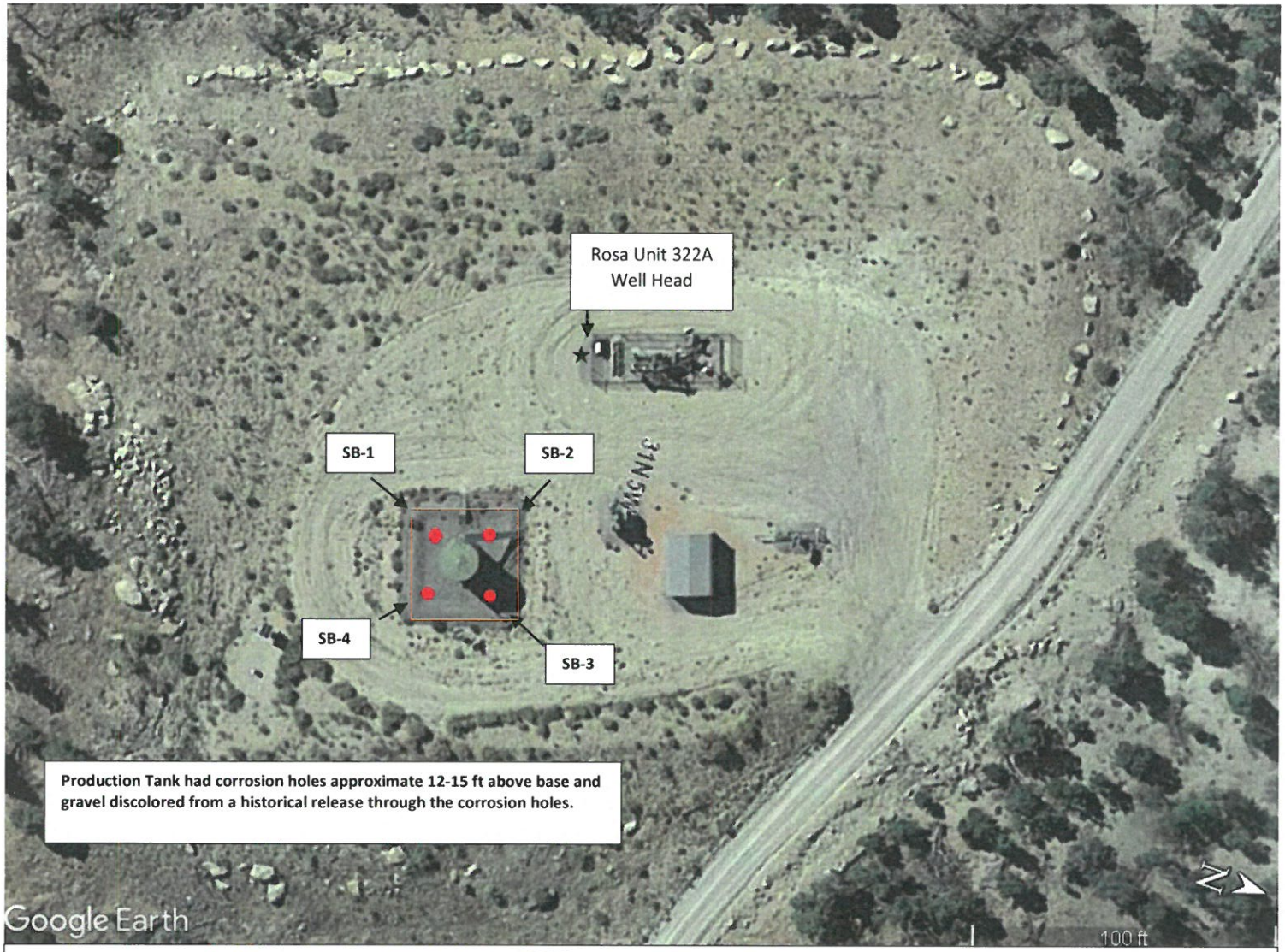


Legend

- ½ mile radius
- 300' radius
- Rosa Unit 061 – Cathodic Well

LOGOS Operating, LLC – Rosa Unit 322A
Hydrology Map
Unit E, Section 23, T31N, R5W
Rio Arriba County, NM

LOGOS RESOURCES II, LLC



Secondary Containment

Soil Boring

LOGOS RESOURCES II, LLC

Well Name: Rosa Unit 322A
API: 30-039-29941
Section: 23 Township: 31N Range: 5W Unit: E
Lat: 36.8868675 Long: -107.3385239 NAD 83

Aerial Site Map
07/01/2020

Scale
100 ft

Field Notes for Spill Closure

Well Name: Rosa Unit 322A

Date of Arrival: 6/24/2020

Observe Area

Removed contaminated soils [x] Yes [ ] No

What chemical was used to clean-up contaminated area:

gypsum, nitrogen and simple green

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

Soil

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

If so, what kind of odor:

Was soil discolored: [x] Yes [ ] No

If so, what color:

Staining brown

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

Marie Florez

From: Tamra Sessions
Sent: Friday, June 19, 2020 10:25 AM
To: Smith, Cory, EMNRD; Powell, Brandon, EMNRD
Cc: Robert Jordan; Marie Florez
Subject: RE: Rosa Unit 322A - Notification for final sampling

Cory, the samples pulled on 6/17/20 are being rejected by Envirotech as they were delivered in plastic Ziploc bags, contradicting the results. We are re-sampling this coming Monday and using jars to transport the samples.

Date: June 22, 2020 (Monday)
Time: 07:00am

Tamra

From: Tamra Sessions
Sent: Friday, June 12, 2020 7:21 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Cc: Robert Jordan <rjordan@logosresourcesllc.com>; Marie Florez <mflorez@logosresourcesllc.com>
Subject: RE: Rosa Unit 322A - Notification for final sampling

LOGOS has a conflict for next Tuesday and is rescheduling for the following day.

Date: June 17, 2020 (Wednesday)
Time: 07:00am

Incident # ncs1927552565

API: 30-039-29941
Well Name: Rosa Unit 322A
Section: 23
Township: 31N
Range: 5W
Unit Letter: E

Tamra Sessions

Regulatory Specialist
Office 505-324-4145
tsessions@logosresourcesllc.com

From: Marie Florez
Sent: Thursday, June 11, 2020 2:19 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: Rosa Unit 322A - Notification for final sampling

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

Date: June 16, 2020 (Tuesday)
Time: 08:00am

Incident # ncs1927552565

API: 30-039-29941
Well Name: Rosa Unit 322A
Section: 23
Township: 31N
Range: 5W
Unit Letter: E

Thanks,

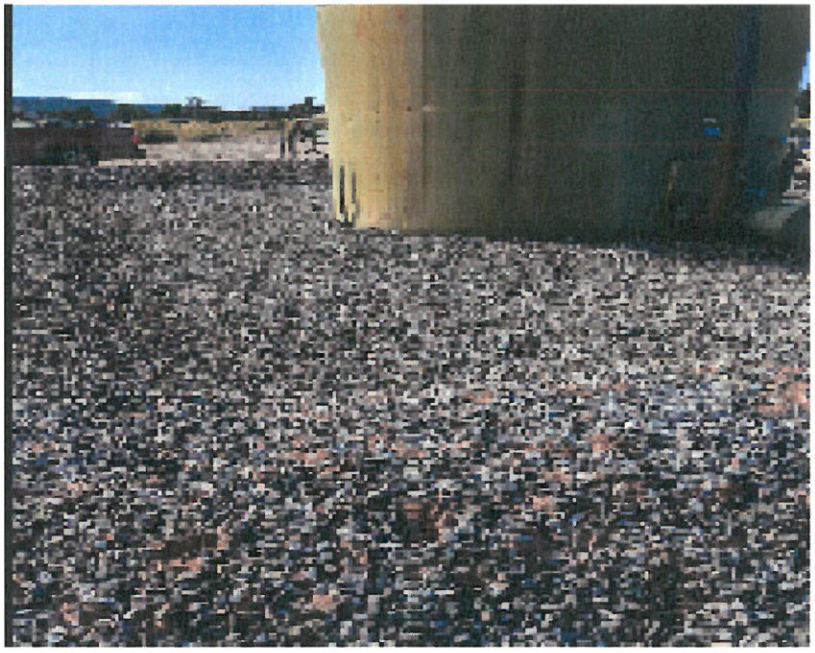
Marie E. Florez
Regulatory Specialist
Cell: 505-419-8420
Office: 505-787-2218
mflorez@logosresourcesllc.com

LOGOS Operating, LLC
Site Pictures
Rosa Unit 322A
Figure: 1

Well Sign

Impacted Area

Impacted Area



Cleaned up Staining

Gypsum added

Patched Corrosion Holes on Tank

SB-1

SB-2

SB-3

SB-4

Sand Stone Formation

Sand Stone Formation

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Logos Resources

Samples Received: 6/24/2020

Job Number: 12035-0114

Work Order: P006081

Project Name/Location: Rosa Unit 322A

Report Reviewed By: Walter Hinchman, Laboratory Director

Date: 6/30/20

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.

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

Sample Summary

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1 at 1'	P006081-01A	Soil	06/24/20	06/24/20	Glass Jar, 4 oz.
SB-2 at 1'	P006081-02A	Soil	06/24/20	06/24/20	Glass Jar, 4 oz.
SB-3 at 1'	P006081-03A	Soil	06/24/20	06/24/20	Glass Jar, 4 oz.
SB-3 at 2'	P006081-04A	Soil	06/24/20	06/24/20	Glass Jar, 4 oz.
SB-4 at 1'	P006081-05A	Soil	06/24/20	06/24/20	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

SB-1 at 1'
P006081-01 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2026024
Benzene	ND	0.0250	1	06/26/20	06/26/20		
Toluene	ND	0.0250	1	06/26/20	06/26/20		
Ethylbenzene	ND	0.0250	1	06/26/20	06/26/20		
p,m-Xylene	ND	0.0500	1	06/26/20	06/26/20		
o-Xylene	ND	0.0250	1	06/26/20	06/26/20		
Total Xylenes	ND	0.0250	1	06/26/20	06/26/20		
Surrogate: 4-Bromochlorobenzene-PID		*104 %*	*50-150*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2026026
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/20	06/26/20		
Oil Range Organics (C28-C40)	ND	50.0	1	06/26/20	06/26/20		
Surrogate: n-Nonane		*92.1 %*	*50-200*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2026024
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/20	06/26/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.9 %*	*50-150*	*06/26/20*	*06/26/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2026029
Chloride	**213**	20.0	1	06/26/20	06/29/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

SB-2 at 1'
P006081-02 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2026024
Benzene	ND	0.0250	1	06/26/20	06/26/20		
Toluene	ND	0.0250	1	06/26/20	06/26/20		
Ethylbenzene	ND	0.0250	1	06/26/20	06/26/20		
p,m-Xylene	ND	0.0500	1	06/26/20	06/26/20		
o-Xylene	ND	0.0250	1	06/26/20	06/26/20		
Total Xylenes	ND	0.0250	1	06/26/20	06/26/20		
Surrogate: 4-Bromochlorobenzene-PID		*107 %*	*50-150*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2026026
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/20	06/26/20		
Oil Range Organics (C28-C40)	ND	50.0	1	06/26/20	06/26/20		
Surrogate: n-Nonane		*93.0 %*	*50-200*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2026024
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/20	06/26/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.2 %*	*50-150*	*06/26/20*	*06/26/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2026029
Chloride	**122**	20.0	1	06/26/20	06/29/20		

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

SB-3 at 1'
P006081-03 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2026024
Benzene	ND	0.0250	1	06/26/20	06/26/20		
Toluene	ND	0.0250	1	06/26/20	06/26/20		
Ethylbenzene	ND	0.0250	1	06/26/20	06/26/20		
p,m-Xylene	ND	0.0500	1	06/26/20	06/26/20		
o-Xylene	ND	0.0250	1	06/26/20	06/26/20		
Total Xylenes	ND	0.0250	1	06/26/20	06/26/20		
Surrogate: 4-Bromochlorobenzene-PID		*104 %*	*50-150*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2026026
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/20	06/26/20		
Oil Range Organics (C28-C40)	ND	50.0	1	06/26/20	06/26/20		
Surrogate: n-Nonane		*84.9 %*	*50-200*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2026024
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/20	06/26/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.9 %*	*50-150*	*06/26/20*	*06/26/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2026029
Chloride	ND	20.0	1	06/26/20	06/29/20		

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Analytical Laboratory

Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

SB-3 at 2'
P006081-04 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2026024
Benzene	ND	0.0250	1	06/26/20	06/26/20		
Toluene	ND	0.0250	1	06/26/20	06/26/20		
Ethylbenzene	ND	0.0250	1	06/26/20	06/26/20		
p,m-Xylene	ND	0.0500	1	06/26/20	06/26/20		
o-Xylene	ND	0.0250	1	06/26/20	06/26/20		
Total Xylenes	ND	0.0250	1	06/26/20	06/26/20		
Surrogate: 4-Bromochlorobenzene-PID		*106 %*	*50-150*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2026026
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/20	06/26/20		
Oil Range Organics (C28-C40)	ND	50.0	1	06/26/20	06/26/20		
Surrogate: n-Nonane		*95.9 %*	*50-200*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2026024
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/20	06/26/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.9 %*	*50-150*	*06/26/20*	*06/26/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2026029
Chloride	ND	20.0	1	06/26/20	06/29/20		

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Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

SB-4 at 1'
P006081-05 (Solid)

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg				Batch:	2026024
Benzene	ND	0.0250	1	06/26/20	06/26/20		
Toluene	ND	0.0250	1	06/26/20	06/26/20		
Ethylbenzene	ND	0.0250	1	06/26/20	06/26/20		
p,m-Xylene	ND	0.0500	1	06/26/20	06/26/20		
o-Xylene	ND	0.0250	1	06/26/20	06/26/20		
Total Xylenes	ND	0.0250	1	06/26/20	06/26/20		
Surrogate: 4-Bromochlorobenzene-PID		*106 %*	*50-150*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg				Batch:	2026026
Diesel Range Organics (C10-C28)	**30.8**	25.0	1	06/26/20	06/26/20		
Oil Range Organics (C28-C40)	**58.0**	50.0	1	06/26/20	06/26/20		
Surrogate: n-Nonane		*94.8 %*	*50-200*	*06/26/20*	*06/26/20*		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg				Batch:	2026024
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/20	06/26/20		
Surrogate: 1-Chloro-4-fluorobenzene-FID		*90.4 %*	*50-150*	*06/26/20*	*06/26/20*		
Anions by EPA 300.0/9056A	mg/kg	mg/kg				Batch:	2026029
Chloride	**20.4**	20.0	1	06/26/20	06/29/20		

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Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

Volatile Organics by EPA 8021B - Quality Control

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level	Source Result mg/kg	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (2026024-BLK1)									Prepared: 06/26/20 0 Analyzed: 06/26/20 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	*8.39*		*8.00*		*105*	*50-150*			
LCS (2026024-BS1)									Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Benzene	4.96	0.0250	5.00		99.3	70-130			
Toluene	5.05	0.0250	5.00		101	70-130			
Ethylbenzene	5.01	0.0250	5.00		100	70-130			
p,m-Xylene	10.0	0.0500	10.0		100	70-130			
o-Xylene	5.04	0.0250	5.00		101	70-130			
Total Xylenes	15.1	0.0250	15.0		101	0-200			
Surrogate: 4-Bromochlorobenzene-PID	*8.42*		*8.00*		*105*	*50-150*			
Matrix Spike (2026024-MS1)				**Source: P006081-01**					Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Benzene	5.27	0.0250	5.00	ND	105	54.3-133			
Toluene	5.29	0.0250	5.00	ND	106	61.4-130			
Ethylbenzene	5.26	0.0250	5.00	ND	105	61.4-133			
p,m-Xylene	10.5	0.0500	10.0	ND	105	63.3-131			
o-Xylene	5.31	0.0250	5.00	ND	106	63.3-131			
Total Xylenes	15.8	0.0250	15.0	ND	106	0-200			
Surrogate: 4-Bromochlorobenzene-PID	*8.43*		*8.00*		*105*	*50-150*			
Matrix Spike Dup (2026024-MSD1)				**Source: P006081-01**					Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Benzene	5.22	0.0250	5.00	ND	104	54.3-133	0.991	20	
Toluene	5.19	0.0250	5.00	ND	104	61.4-130	1.96	20	
Ethylbenzene	5.16	0.0250	5.00	ND	103	61.4-133	1.89	20	
p,m-Xylene	10.3	0.0500	10.0	ND	103	63.3-131	2.02	20	
o-Xylene	5.20	0.0250	5.00	ND	104	63.3-131	2.01	20	
Total Xylenes	15.5	0.0250	15.0	ND	103	0-200	2.02	200	
Surrogate: 4-Bromochlorobenzene-PID	*8.52*		*8.00*		*106*	*50-150*			

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Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

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

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level	Source Result mg/kg	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (2026026-BLK1)									Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C40)	ND	50.0							
Surrogate: n-Nonane	*54.7*		*50.0*		*109*	*50-200*			
LCS (2026026-BS1)									Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Diesel Range Organics (C10-C28)	587	25.0	500		117	38-132			
Surrogate: n-Nonane	*49.5*		*50.0*		*99.0*	*50-200*			
Matrix Spike (2026026-MS1)					**Source: P006081-01**				Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Diesel Range Organics (C10-C28)	486	25.0	500	ND	97.3	38-132			
Surrogate: n-Nonane	*48.0*		*50.0*		*96.1*	*50-200*			
Matrix Spike Dup (2026026-MSD1)					**Source: P006081-01**				Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Diesel Range Organics (C10-C28)	475	25.0	500	ND	95.1	38-132	2.29	20	
Surrogate: n-Nonane	*48.1*		*50.0*		*96.1*	*50-200*			

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Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

Nonhalogenated Organics by EPA 8015D - GRO - Quality Control

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level	Source Result mg/kg	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (2026024-BLK1)									Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.30*		*8.00*		*91.3*	*50-150*			
LCS (2026024-BS2)									Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Gasoline Range Organics (C6-C10)	50.4	20.0	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.45*		*8.00*		*93.2*	*50-150*			
Matrix Spike (2026024-MS2)				**Source: P006081-01**					Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Gasoline Range Organics (C6-C10)	49.1	20.0	50.0	ND	98.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.47*		*8.00*		*93.3*	*50-150*			
Matrix Spike Dup (2026024-MSD2)				**Source: P006081-01**					Prepared: 06/26/20 0 Analyzed: 06/26/20 1
Gasoline Range Organics (C6-C10)	49.4	20.0	50.0	ND	98.9	70-130	0.743	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.45*		*8.00*		*93.2*	*50-150*			

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Logos Resources	Project Name:	Rosa Unit 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

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					
Blank (2026029-BLK1)									Prepared: 06/26/20 0 Analyzed: 06/29/20 1
Chloride	ND	20.0							
LCS (2026029-BS1)									Prepared: 06/26/20 0 Analyzed: 06/29/20 1
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2026029-MS1)					**Source: P006081-01**				Prepared: 06/26/20 0 Analyzed: 06/29/20 1
Chloride	682	20.0	250	213	188	80-120			M2
Matrix Spike Dup (2026029-MSD1)					**Source: P006081-01**				Prepared: 06/26/20 0 Analyzed: 06/29/20 1
Chloride	583	20.0	250	213	148	80-120	15.6	20	M2

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 322A	
2010 Afton Place	Project Number:	12035-0114	**Reported:**
Farmington NM, 87401	Project Manager:	Robert Jordan	06/30/20 16:29

Notes and Definitions

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
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 1

Client: **LOGOS Resources II, LLC**	**Bill To**
Project: **Rosa Unit 322A**	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# P000081	Job Number 12035-0114	1D	3D	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
8:30	6/24	S	1-4oz jar	SB-1 at 1'	1	X	X	X			X	
8:35	6/24	S	1-4oz jar	SB-2 at 1'	2	X	X	X			X	
8:40	6/24	S	1-4oz jar	SB-3 at 1'	3	X	X	X			X	
8:45	6/24	S	1-4oz jar	SB-3 at 2'	4	X	X	X			X	
8:50	6/24	S	1-4oz jar	SB-4 at 1'	5	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
	6-24-20	4:50	Chelsea Nichols	6-24-20	16:53
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	6-24-20	4:50			
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
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District IV
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 9054

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
LOGOS OPERATING, LLC	2010 Afton Place	Farmington, NM87401	289408	9054	C-141

OCD Reviewer	Condition
csmith	None