

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	NCS1929540332
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

# DENIED

Responsible Party: LOGOS Operating LLC	OGRID: 289408
Contact Name: Larissa Farrell	Contact Telephone: (505) 787-2027
Contact email: lfarrell@logosresourcesllc.com	Incident # (assigned by OCD) NCS1929540332
Contact mailing address: 2010 Afton Pl Farmington, NM 87401	

### Location of Release Source

Latitude 36.8674126 \_\_\_\_\_ Longitude -107.2684555 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rosa Unit 312	Site Type: Wellsite
Date Release Discovered: 9/6/19	API# (if applicable) 30-039-25058

Unit Letter	Section	Township	Range	County
L	28	T31N	R04W	Rio Arriba

\* Incomplete C-141 for deferral  
- Closure/delineation samples do not meet the Requirements of 19.15.29.12/13 NMAC 600 mg/kg Review, and resubmit no later than March 30, 2020

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) Unknown (approx. 5bbls)	Volume Recovered (bbls) < 1bbl
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Production Tank has corrosion hole approximately 12' above the base of the tank causing the secondary containment to hold fluid. NMOCD located the release and contacted LOGOS to report release.

Form C-141

State of New Mexico  
Oil Conservation Division

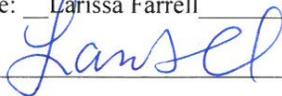
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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given 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*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> 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: <u>Larissa Farrell</u> Title: <u>ENV/REG Technician</u> Signature: <u></u> Date: <u>10/2/19</u> email: <u>lfarrell@logosresourcesllc.com</u> Telephone: <u>(505) 787-2027</u>

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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## 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?	_____ 152 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

<p><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li><input checked="" type="checkbox"/> Field data</li> <li><input checked="" type="checkbox"/> Data table of soil contaminant concentration data</li> <li><input checked="" type="checkbox"/> Depth to water determination</li> <li><input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li><input type="checkbox"/> Boring or excavation logs</li> <li><input checked="" type="checkbox"/> Photographs including date and GIS information</li> <li><input checked="" type="checkbox"/> Topographic/Aerial maps</li> <li><input checked="" type="checkbox"/> Laboratory data including chain of custody</li> </ul>
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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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State of New Mexico  
Oil Conservation Division

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

Printed Name: Larissa Farrell Title: Environmental Technician

Signature:  Date: 12/4/19

email: lfarrell@logosresourcesllc.com Telephone: 505-787-2027

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 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: Larissa Farrell Title: Environmental Technician

Signature:  Date: 12/4/19

email: lfarrell@logosresourcesllc.com Telephone: 505-787-2027

**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: **DENIED** Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



2010 Afton Place  
Farmington, NM 87401  
Phone: (505) 278-8720  
Fax: (505) 326-6112

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December 4, 2019

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

Re: nCS1929540332  
Rosa Unit 312 Remediation Activity  
30-039-25058  
SEC. 28, T31N AND R04W  
Rio Arriba County, NM

Dear Mr. Smith.

LOGOS Operating, LLC discovered an unknown release at the Rosa Unit 312 that remained within the secondary containment. LOGOS pulled all remaining standing water and applied nitrogen and gypsum to the affected area. LOGOS scheduled the confirmation sampling on 11/1/2019 with the NMOCD. One 5-point composite sample was collected from within the secondary containment and delivered on ice to Envirotech Laboratories. The closest depth to ground water is located 5540' away in Section 34, T31N, R04W at the SJ00049 POD with record depth to groundwater at 112' bgs. With the difference in elevation, the depth to groundwater at Rosa Unit 312 is estimated at 147' bgs. The results from the sampling confirmed the NMAC 19.15.29.12 ( E) Table I closure criteria has been met. As per NMAC 19.15.29.13(D)(1), the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0 or other test methods approved by the division. LOGOS delineated the secondary containment down to 2' bgs with attached results which shows that the top 4 feet of earthen material and satisfies NMAC 19.15.29.13 (D)(1).

Sincerely,

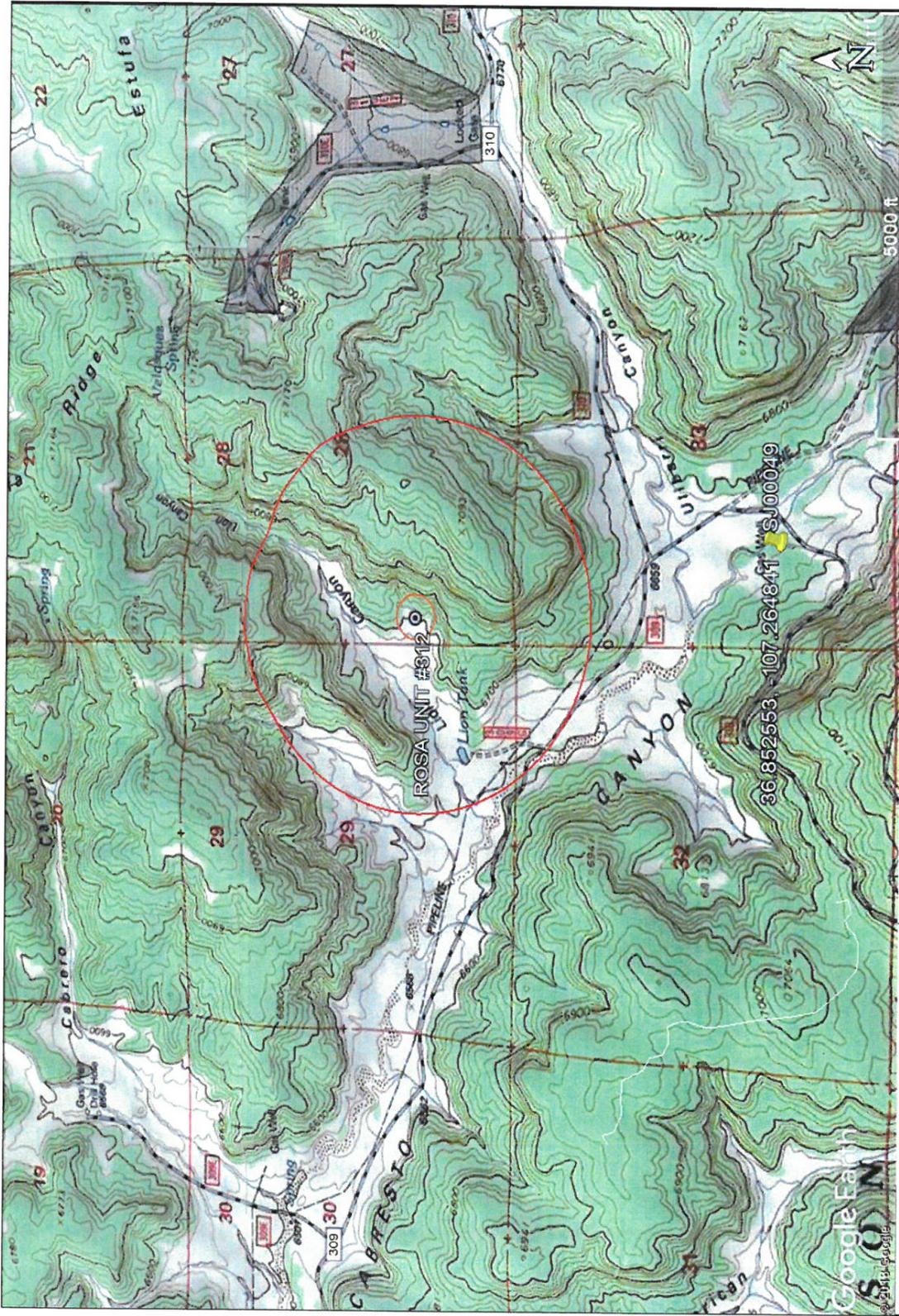
Larissa Farrell  
Environmental/Regulatory Technician



LOGOS Operating, LLC – Rosa Unit 312  
API 30-039-25058  
Scaled Site Map  
Unit L, Section 28, T31N, R4W  
Rio Arriba County, NM

Legend

 Impacted Area



	<p>LOGOS Operating, LLC – Rosa Unit 312          API 30-039-25058          Hydrology Map          Elevation 6719'          Unit L, Section 28, T31N, R4W          Rio Arriba County, NM</p>	<p>Legend</p> <ul style="list-style-type: none"> <li> 1/2 mile radius</li> <li> 300' radius</li> <li> S100049 – Elevation 6684'</li> </ul>
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## New Mexico Office of the State Engineer

# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	WellDepth	Average Depth to Water	Water Column
<a href="#">SJ 02886</a>		SJ	SJ	4	2	2	28	31N	04W	299249	4083393*	1670	150		
<a href="#">SJ 00049</a>		SJ	RA		3	33	31N	04W		298080	4080910*	1680	112	80	32
<a href="#">SJ 02384</a>		SJ	RA	3	1	3	07	30N	04W	294736	4077762*	5696	185	95	90
<a href="#">SJ 04039</a> <b>POD1</b>		SJ	SJ	2	3	2	14	30N	05W	292702	4076834	7668	275		
<a href="#">SJ 00042</a>		SJ	RA		1	28	30N	04W		297901	4073566*	9001	62		

Average Depth to Water: **87 feet**  
 Minimum Depth: **80 feet**  
 Maximum Depth: **95 feet**

**Record Count:** 5

**UTM NAD83 Radius Search (in meters):**

**Easting (X):** 297796.86

**Northing (Y):** 4082566.5

**Radius:** 10000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/2/19 9:57 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER





## Analytical Report

### Report Summary

Client: Logos Operating, LLC

Samples Received: 11/1/2019

Job Number: 12035-0114

Work Order: P911042

Project Name/Location: Rosa Unit

Report Reviewed By:

A handwritten signature in black ink that reads 'Walter Hinchman'.

Date: 11/11/19

Walter Hinchman, Laboratory Director



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.



Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa Unit Project Number: 12035-0114 Project Manager: Larissa Farrell	<b>Reported:</b> 11/11/19 16:13
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**Analytical Report for Samples**

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Rosa Unit 312	P911042-01A	Soil	11/01/19	11/01/19	Glass Jar, 4 oz.
	P911042-01B	Soil	11/01/19	11/01/19	Glass Jar, 4 oz.

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa Unit Project Number: 12035-0114 Project Manager: Larissa Farrell	Reported: 11/11/19 16:13
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**Rosa Unit 312  
P911042-01 (Solid)**

Analyte	Reporting								
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	0.0250	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %		50-150	1944038	11/01/19	11/04/19	EPA 8021B	
<b>Nonhalogenated Organics by 8015 - DRO/ORO</b>									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1945003	11/04/19	11/04/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1945003	11/04/19	11/04/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		99.3 %		50-200	1945003	11/04/19	11/04/19	EPA 8015D	
<b>Nonhalogenated Organics by 8015 - GRO</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1944038	11/01/19	11/04/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		84.7 %		50-150	1944038	11/01/19	11/04/19	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	1550	40.0	mg/kg	2	1945002	11/04/19	11/05/19	EPA 300.0/9056A	

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa Unit Project Number: 12035-0114 Project Manager: Larissa Farrell	Reported: 11/11/19 16:13
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**Volatile Organics by EPA 8021 - Quality Control**

**Envirotech Analytical Laboratory**

Analytic	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1944038 - Purge and Trap EPA 5030A**

**Blank (1944038-BLK1)**

Prepared: 11/01/19 1 Analyzed: 11/04/19 2

Benzene	ND	0.0250	mg/kg							
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	8.19		"	8.00		102	50-150			

**LCS (1944038-BS1)**

Prepared: 11/01/19 1 Analyzed: 11/05/19 0

Benzene	5.05	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.15	0.0250	"	5.00		103	70-130			
Ethylbenzene	5.04	0.0250	"	5.00		101	70-130			
p,m-Xylene	10.0	0.0500	"	10.0		100	70-130			
o-Xylene	4.98	0.0250	"	5.00		99.6	70-130			
Total Xylenes	15.0	0.0250	"	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.53		"	8.00		94.2	50-150			

**Matrix Spike (1944038-MS1)**

Source: P910199-01

Prepared: 11/01/19 1 Analyzed: 11/05/19 1

Benzene	5.02	0.0250	mg/kg	5.00	ND	100	54.3-133			
Toluene	5.13	0.0250	"	5.00	ND	103	61.4-130			
Ethylbenzene	5.03	0.0250	"	5.00	ND	101	61.4-133			
p,m-Xylene	10.0	0.0500	"	10.0	ND	100	63.3-131			
o-Xylene	5.03	0.0250	"	5.00	ND	101	63.3-131			
Total Xylenes	15.0	0.0250	"	15.0	ND	100	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.25		"	8.00		103	50-150			

**Matrix Spike Dup (1944038-MSD1)**

Source: P910199-01

Prepared: 11/01/19 1 Analyzed: 11/05/19 1

Benzene	5.06	0.0250	mg/kg	5.00	ND	101	54.3-133	0.683	20	
Toluene	5.10	0.0250	"	5.00	ND	102	61.4-130	0.505	20	
Ethylbenzene	5.00	0.0250	"	5.00	ND	100	61.4-133	0.591	20	
p,m-Xylene	9.95	0.0500	"	10.0	ND	99.5	63.3-131	0.697	20	
o-Xylene	4.96	0.0250	"	5.00	ND	99.2	63.3-131	1.30	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.4	63.3-131	0.899	20	
Surrogate: 4-Bromochlorobenzene-PID	8.13		"	8.00		102	50-150			

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa Unit Project Number: 12035-0114 Project Manager: Larissa Farrell	Reported: 11/11/19 16:13
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**Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1945003 - DRO Extraction EPA 3570**

**Blank (1945003-BLK1)**

Prepared: 11/04/19 1 Analyzed: 11/05/19 0

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	53.9		"	50.0		108	50-200			

**LCS (1945003-BS1)**

Prepared & Analyzed: 11/04/19 1

Diesel Range Organics (C10-C28)	480	25.0	mg/kg	500		96.0	38-132			
Surrogate: n-Nonane	48.8		"	50.0		97.6	50-200			

**Matrix Spike (1945003-MS1)**

Source: P910199-01

Prepared & Analyzed: 11/04/19 1

Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500	ND	101	38-132			
Surrogate: n-Nonane	48.8		"	50.0		97.7	50-200			

**Matrix Spike Dup (1945003-MSD1)**

Source: P910199-01

Prepared & Analyzed: 11/04/19 1

Diesel Range Organics (C10-C28)	517	25.0	mg/kg	500	ND	103	38-132	2.31	20	
Surrogate: n-Nonane	49.9		"	50.0		99.9	50-200			

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Logos Operating, LLC	Project Name:	Rosa Unit	<b>Reported:</b> 11/11/19 16:13
PO Box 18	Project Number:	12035-0114	
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	

### Nonhalogenated Organics by 8015 - GRO - Quality Control

#### Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1944038 - Purge and Trap EPA 5030A

##### Blank (1944038-BLK1)

Prepared: 11/01/19 1 Analyzed: 11/04/19 2

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.79		"	8.00		84.8	50-150			

##### LCS (1944038-BS2)

Prepared: 11/01/19 1 Analyzed: 11/05/19 1

Gasoline Range Organics (C6-C10)	46.5	20.0	mg/kg	50.0		92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.86		"	8.00		85.7	50-150			

##### Matrix Spike (1944038-MS2)

Source: P910199-01

Prepared: 11/01/19 1 Analyzed: 11/05/19 1

Gasoline Range Organics (C6-C10)	48.1	20.0	mg/kg	50.0	ND	96.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.82		"	8.00		85.3	50-150			

##### Matrix Spike Dup (1944038-MSD2)

Source: P910199-01

Prepared: 11/01/19 1 Analyzed: 11/05/19 1

Gasoline Range Organics (C6-C10)	48.8	20.0	mg/kg	50.0	ND	97.6	70-130	1.41	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.79		"	8.00		84.8	50-150			

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa Unit Project Number: 12035-0114 Project Manager: Larissa Farrell	<b>Reported:</b> 11/11/19 16:13
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**Anions by 300.0/9056A - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1945002 - Anion Extraction EPA 300.0/9056A**

**Blank (1945002-BLK1)**

Chloride ND 20.0 mg/kg Prepared: 11/04/19 0 Analyzed: 11/04/19 1

**LCS (1945002-BS1)**

Chloride 256 20.0 mg/kg 250 102 90-110 Prepared: 11/04/19 0 Analyzed: 11/04/19 1

**Matrix Spike (1945002-MS1)**

Chloride 284 20.0 mg/kg 250 27.1 103 80-120 Prepared: 11/04/19 0 Analyzed: 11/04/19 1

**Matrix Spike Dup (1945002-MSD1)**

Chloride 283 20.0 mg/kg 250 27.1 102 80-120 0.335 20 Prepared: 11/04/19 0 Analyzed: 11/04/19 1

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.

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Logos Operating, LLC	Project Name:	Rosa Unit	
PO Box 18	Project Number:	12035-0114	<b>Reported:</b>
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	11/11/19 16:13

**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.

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Project Information

Chain of Custody

Page 1 of 10

Client: <u>LOGOS</u>				Report Attention				Lab Use Only				TAT		EPA Program			
Project: _____				Report due by: _____				Lab WO#		Job Number		1D	3D	RCRA	CWA	SDWA	
Project Manager: <u>Lansataveril</u>				Attention: _____				<u>P911003</u>		<u>2035-0114</u>							
Address: _____				Address: _____				Analysis and Method									
City, State, Zip				City, State, Zip				State									
Phone: <u>505-419-1100</u>				Phone: _____				<input type="checkbox"/> NM <input type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/> OK									
Email: <u>Hammer116@logosresourcesllc.com</u>				Email: _____				DRO/ORO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 3000 6010 Total P									
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 3000	6010 Total P	Remarks				
12:30	11/1/19	S	2	Rosa Unit 376A SS1	1	✓	✓	✓		✓							
12:33	11/1/19	S	2	Rosa Unit 376A SS2	2	✓	✓	✓		✓							
11:39	11/1/19	S	2	Rosa Unit 322A	3	✓	✓	✓		✓							
10:33	11/1/19	S	2	Rosa Unit 312	4	✓	✓	✓		✓							
Additional Instructions:																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>[Signature]</u>																	
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) <u>[Signature]</u>				Date: <u>11/1/19</u>		Time: <u>2:44</u>		Received by: (Signature) <u>[Signature]</u>				Date: <u>11-1-19</u>		Time: <u>14:44</u>		Lab Use Only	
Relinquished by: (Signature)				Date:		Time:		Received by: (Signature)				Date:		Time:		Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	
Relinquished by: (Signature)				Date:		Time:		Received by: (Signature)				Date:		Time:		T1 _____ T2 _____ T3 _____	
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.																	

Page 9 of 10



5795 US Highway 54, Farmington, NM 87401  
24 Hour Emergency Response Phone (800) 362-1879

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

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labadmin@envirotech-inc.com

Project Information

Chain of Custody

Page 1 of 1

Client: <u>LOGOS</u>		Report Attention		Lab Use Only		TAT		EPA Program						
Project: <u>Rosa Unit</u>		Report due by:		Lab WO#	Job Number	1D	3D	RCRA	CWA	SDWA				
Project Manager: <u>Lanssa Farrell</u>		Attention:		<u>P911003</u>	<u>12035-0410</u>									
Address:		Address:		Analysis and Method						State				
City, State, Zip		City, State, Zip		DRD/DRO by 8015	GRD/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	6010 Total P	NM	CO	UT	AZ
Phone: <u>505-419-1100</u>		Phone:									TX	OK		
Email: <u>lfarrell@logosresourcesllc.com</u>		Email:												
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRD/DRO by 8015	GRD/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	6010 Total P	Remarks	
12:33	11/19	S	2	Rosa Unit 376A SS1	1	✓	✓	✓		✓				
12:33	11/19	S	2	Rosa Unit 376A SS2	2	✓	✓	✓		✓				
11:39	11/19	S	2	Rosa Unit 322A	3	✓	✓	✓		✓				
10:33	11/19	S	2	Rosa Unit 312	4	✓	✓	✓		✓				

Page 10 of 10

Additional Instructions:

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

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	11/1/19	2:44	[Signature]	11-1-19	14:44	
Relinquished by: (Signature)						

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.



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## Analytical Report

### Report Summary

Client: Logos Operating, LLC

Samples Received: 11/12/2019

Job Number: 12035-0114

Work Order: P911046

Project Name/Location: Rosa 312 Del

Report Reviewed By:

A handwritten signature in black ink that reads 'Walter Hinchman'.

Date: 11/19/19

Walter Hinchman, Laboratory Director



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.  
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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.



Logos Operating, LLC  
PO Box 18  
Flora Vista NM, 87415

Project Name: Rosa 312 Del  
Project Number: 12035-0114  
Project Manager: Larissa Farrell

**Reported:**  
11/19/19 11:26

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SD1	P911046-01A	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.
	P911046-01B	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.
SD2	P911046-02A	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.
	P911046-02B	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.
SD3	P911046-03A	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.
	P911046-03B	Soil	11/12/19	11/12/19	Glass Jar, 4 oz.

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa 312 Del Project Number: 12035-0114 Project Manager: Larissa Farrell	Reported: 11/19/19 11:26
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## SD1

## P911046-01 (Solid)

Analyte	Result	Reporting						
		Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

**Volatile Organics by EPA 8021**

Benzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B
Toluene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B
Ethylbenzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B
p,m-Xylene	ND	0.0500	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B
o-Xylene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B
Total Xylenes	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B

Surrogate: 4-Bromochlorobenzene-PID 101 % 50-150 1946029 11/14/19 11/14/19 EPA 8021B

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1946033	11/14/19	11/17/19	EPA 8015D
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1946033	11/14/19	11/17/19	EPA 8015D

Surrogate: n-Nonane 102 % 50-200 1946033 11/14/19 11/17/19 EPA 8015D

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.6 %		50-150	1946029	11/14/19	11/14/19	EPA 8015D

**Anions by 300.0/9056A**

Chloride	493	20.0	mg/kg	1	1946040	11/15/19	11/15/19	EPA 300.0/9056A
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Logos Operating, LLC	Project Name:	Rosa 312 Del	
PO Box 18	Project Number:	12035-0114	<b>Reported:</b>
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	11/19/19 11:26

**SD2****P911046-02 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organics by EPA 8021**

Benzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	1946029	11/14/19	11/14/19	EPA 8021B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1946033	11/14/19	11/17/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1946033	11/14/19	11/17/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		105 %		50-200	1946033	11/14/19	11/17/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		84.8 %		50-150	1946029	11/14/19	11/14/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	564	20.0	mg/kg	1	1946040	11/15/19	11/15/19	EPA 300.0/9056A	
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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa 312 Del Project Number: 12035-0114 Project Manager: Larissa Farrell	Reported: 11/19/19 11:26
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**SD3****P911046-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organics by EPA 8021**

Benzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1946029	11/14/19	11/14/19	EPA 8021B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1946033	11/14/19	11/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1946033	11/14/19	11/18/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		99.7 %		50-200	1946033	11/14/19	11/18/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1946029	11/14/19	11/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		86.0 %		50-150	1946029	11/14/19	11/14/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	680	20.0	mg/kg	1	1946040	11/15/19	11/15/19	EPA 300.0/9056A	
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Logos Operating, LLC	Project Name:	Rosa 312 Del	<b>Reported:</b> 11/19/19 11:26
PO Box 18	Project Number:	12035-0114	
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	

**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1946029 - Purge and Trap EPA 5030A**

**Blank (1946029-BLK1)** Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7.78		"	8.00		97.2	50-150			

**LCS (1946029-BS1)** Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Benzene	4.74	0.0250	mg/kg	5.00		94.8	70-130			
Toluene	4.88	0.0250	"	5.00		97.5	70-130			
Ethylbenzene	4.77	0.0250	"	5.00		95.4	70-130			
p,m-Xylene	9.50	0.0500	"	10.0		95.0	70-130			
o-Xylene	4.72	0.0250	"	5.00		94.4	70-130			
Total Xylenes	14.2	0.0250	"	15.0		94.8	70-130			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7.89		"	8.00		98.6	50-150			

**Matrix Spike (1946029-MS1)** Prepared: 11/14/19 0 Analyzed: 11/14/19 1  
**Source: P911044-01**

Benzene	5.03	0.0250	mg/kg	5.00	ND	101	54.3-133			
Toluene	5.13	0.0250	"	5.00	ND	103	61.4-130			
Ethylbenzene	5.07	0.0250	"	5.00	ND	101	61.4-133			
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131			
o-Xylene	5.03	0.0250	"	5.00	ND	101	63.3-131			
Total Xylenes	15.1	0.0250	"	15.0	ND	101	63.3-131			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7.95		"	8.00		99.4	50-150			

**Matrix Spike Dup (1946029-MSD1)** Prepared: 11/14/19 0 Analyzed: 11/14/19 1  
**Source: P911044-01**

Benzene	4.99	0.0250	mg/kg	5.00	ND	99.7	54.3-133	0.757	20	
Toluene	5.13	0.0250	"	5.00	ND	103	61.4-130	0.0214	20	
Ethylbenzene	5.05	0.0250	"	5.00	ND	101	61.4-133	0.345	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	0.303	20	
o-Xylene	5.02	0.0250	"	5.00	ND	100	63.3-131	0.251	20	
Total Xylenes	15.1	0.0250	"	15.0	ND	101	63.3-131	0.286	20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7.86		"	8.00		98.3	50-150			

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Logos Operating, LLC  
PO Box 18  
Flora Vista NM, 87415

Project Name: Rosa 312 Del  
Project Number: 12035-0114  
Project Manager: Larissa Farrell

Reported:  
11/19/19 11:26

**Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1946033 - DRO Extraction EPA 3570**

**Blank (1946033-BLK1)**

Prepared: 11/14/19 1 Analyzed: 11/15/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	49.8		"	50.0		99.5	50-200			

**LCS (1946033-BS1)**

Prepared: 11/14/19 1 Analyzed: 11/15/19 1

Diesel Range Organics (C10-C28)	472	25.0	mg/kg	500		94.4	38-132			
Surrogate: n-Nonane	49.1		"	50.0		98.1	50-200			

**Matrix Spike (1946033-MS1)**

Source: P911044-01

Prepared: 11/14/19 1 Analyzed: 11/15/19 1

Diesel Range Organics (C10-C28)	625	25.0	mg/kg	500	ND	125	38-132			
Surrogate: n-Nonane	60.3		"	50.0		121	50-200			

**Matrix Spike Dup (1946033-MSD1)**

Source: P911044-01

Prepared: 11/14/19 1 Analyzed: 11/15/19 1

Diesel Range Organics (C10-C28)	629	25.0	mg/kg	500	ND	126	38-132	0.629	20	
Surrogate: n-Nonane	59.9		"	50.0		120	50-200			

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Logos Operating, LLC	Project Name:	Rosa 312 Del	
PO Box 18	Project Number:	12035-0114	<b>Reported:</b>
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	11/19/19 11:26

**Nonhalogenated Organics by 8015 - GRO - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1946029 - Purge and Trap EPA 5030A**

**Blank (1946029-BLK1)**

Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.91		"	8.00		86.4	50-150			

**LCS (1946029-BS2)**

Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Gasoline Range Organics (C6-C10)	48.0	20.0	mg/kg	50.0		96.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.88		"	8.00		86.0	50-150			

**Matrix Spike (1946029-MS2)**

Source: P911044-01

Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Gasoline Range Organics (C6-C10)	52.0	20.0	mg/kg	50.0	ND	104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.95		"	8.00		86.9	50-150			

**Matrix Spike Dup (1946029-MSD2)**

Source: P911044-01

Prepared: 11/14/19 0 Analyzed: 11/14/19 1

Gasoline Range Organics (C6-C10)	51.5	20.0	mg/kg	50.0	ND	103	70-130	0.929	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.05		"	8.00		88.1	50-150			

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Rosa 312 Del Project Number: 12035-0114 Project Manager: Larissa Farrell	<b>Reported:</b> 11/19/19 11:26
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**Anions by 300.0/9056A - Quality Control**

**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1946040 - Anion Extraction EPA 300.0/9056A**

**Blank (1946040-BLK1)**

Chloride ND 20.0 mg/kg Prepared & Analyzed: 11/15/19 1

**LCS (1946040-BS1)**

Chloride 252 20.0 mg/kg 250 101 90-110 Prepared & Analyzed: 11/15/19 1

**Matrix Spike (1946040-MS1)**

Chloride 432 20.0 mg/kg 250 188 97.6 80-120 **Source: P911044-01** Prepared & Analyzed: 11/15/19 1

**Matrix Spike Dup (1946040-MSD1)**

Chloride 436 20.0 mg/kg 250 188 99.5 80-120 1.09 20 **Source: P911044-01** Prepared & Analyzed: 11/15/19 1

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.

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Logos Operating, LLC	Project Name:	Rosa 312 Del	
PO Box 18	Project Number:	12035-0114	<b>Reported:</b>
Flora Vista NM, 87415	Project Manager:	Larissa Farrell	11/19/19 11:26

**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.

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Project Information

Chain of Custody

Page 1 of 1

Client: <u>LOGOS</u> Project: <u>Rosa 312 1x1</u> Project Manager: <u>L Farnell</u> Address: _____ City, State, Zip: _____ Phone: <u>505.419.1100</u> Email: <u>Lfarnell@logosresourcesllc.com</u>				Report Attention Report due by: _____ Attention: _____ Address: _____ City, State, Zip: _____ Phone: _____ Email: _____				Lab Use Only Lab WO# <u>P911046</u> Job Number <u>12035-0114</u> Analysis and Method DRO/ORO by 8015 _____ GRO/DRO by 8015 _____ BTEX by 8021 _____ VOC by 8260 _____ Metals 6010 _____ Chloride 3000 _____ 6010 Total P _____				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 3000	6010 Total P	Remarks			
	01/25/19	S	2	SD1	1	✓	✓	✓		✓						
	2/25/19	S	2	SD2	2	✓	✓	✓		✓						
	2/15/19	S	2	SD3	3	✓	✓	✓		✓						
Additional Instructions: <u>STAT</u>																
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>[Signature]</u>																
Relinquished by: (Signature) <u>[Signature]</u> Date <u>11/2/19</u> Time <u>4:52</u>						Received by: (Signature) <u>[Signature]</u> Date <u>11/2/19</u> Time <u>16:52</u>						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 _____						Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>				
Relinquished by: (Signature) _____ Date _____ Time _____						Received by: (Signature) _____ Date _____ Time _____						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.																

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5796 US Highway 64, Farmington, NM 87401  
 24 Hour Emergency Response Phone (800) 362-1879

Ph (505) 632-1881 Fx (505) 632-1665

envirotech-inc.com  
 labadmin@envirotech-inc.com



