

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	NRM2034957931
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: LOGOS Operating, LLC	OGRID: 289408
Contact Name: Tamra Sessions	Contact Telephone: 505-324-4145
Contact email: tsessions@logosresourcesllc.com	Incident # (assigned by OCD)
Contact mailing address: 2010 Afton Place Farmington, NM 87401	

### Location of Release Source

Latitude 36.532089

Longitude -107.099235

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Jicarilla 95 7B	Site Type: Well
Date Release Discovered: 11/18/2020	API# (if applicable): 30-039-26854

Unit Letter	Section	Township	Range	County
F	36	27N	3W	Rio Arriba

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

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) Unknown	Volume Recovered (bbls) 0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): Unknown	Volume Recovered (bbls): 0
	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:

Rupture disc on separator failed 6/22/20 causing produced oil and water to spray covering an area approximately 12' x 15'. Estimated release at less than 1bbl, non-reportable. On 11/18/20 the release became reportable as LOGOS continued to dig and haul more than 12 cubic yards of contaminated soil, which appears to be a historic stain from previous release(s), resulting in greater than 5 bbls.


State of New Mexico  
Oil Conservation Division

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<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

## 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>Tamra Sessions</u>	Title: <u>Regulatory Specialist</u>
Signature: <u></u>	Date: <u>2/19/2021</u>
email: <u>_tsessions@logosresourcesllc.com</u>	Telephone: <u>(505) 324-4145</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	NRM2034957931
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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?	>100 (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.

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 1/2-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

State of New Mexico  
Oil Conservation Division

Incident ID	NRM2034957931
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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: Tamra Sessions Title: Regulatory Specialist  
Signature:  Date: 2/19/2021  
email: \_tsessions@logosresourcesllc.com Telephone: (505) 324-4145

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

Incident ID	NRM2034957931
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: Tamra Sessions Title: Regulatory Specialist

Signature:  Date: 2/19/2021

email: tsessions@logosresourcesllc.com Telephone: (505) 324-4145

### 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: 07/01/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv



February 19, 2021

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

Incident # NRM2034957931

**Well Name: Jicarilla 95 7B Located in Section 36, Township 27 North, Range 3 West, Rio Arriba, New Mexico.**

**RE: Rupture disc on separator failed 6/22/20 causing produced oil and water to spray covering an area approximately 12' x 15'. Estimated release at less than 1bbl, non-reportable. Jicarilla requested LOGOS to remove separator and on 11/18/20 the release became reportable as LOGOS continued to dig and haul more than 12 cubic yards of contaminated soil, which appears to be a historic stain from previous release(s).**

Dear Mr. Smith,

On 6/22/2020 Jason Sandoval (JOGA) found fluid sprayed on the separator and ground. LOGOS personnel arrived on location and found the rupture disc failed on the low pressure side of separator. There was no standing fluid. Affected area is approximately 12' x 15' x 4" deep. Estimated at less than 1bbl of oil. LOGOS began cleaning up immediately, and sampling to be scheduled at a later date. Separator was repaired. On June 22 & 23, 2020, LOGOS raked in oil sponge in the affected area.

On August 24, 2020, per Keith Manwell's request, LOGOS collected one composite grab sample within the 12' by 15' area of the separator pad as documented in the enclosed Aerial Site map. Samples were placed into Ziploc bag, mixed, and put into laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. Samples did not pass.

On November 18, 2020 Kelley Oilfield Services removed the separator and remediated historic contaminated soil per the request of Keith Manwell (Jicarilla). Keith was onsite with Envirotech for the confirmation sampling. Kelley Services had to haul off and disposed 12 cubic yards to the Envirotech landfarm before sampling. This clean out then became a reportable release with NMOCD. After Envirotech sampled, LOGOS requested for a report to be generated from this day. See attached:

The groundwater data is documented in the enclosed TOPO Site Map. Nearest water well, SJ03102 is located three miles to the east in NW4 of Section 4, T26N, R02W. Depth to water is 210' with an elevation of 7288'. The Jicarilla 95 7B has an elevation of 7179', and groundwater is determined @ >100'.

Therefore, based on the confirmation sample 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 requests a release and remediation/reclamation closure approval from NMOCD.

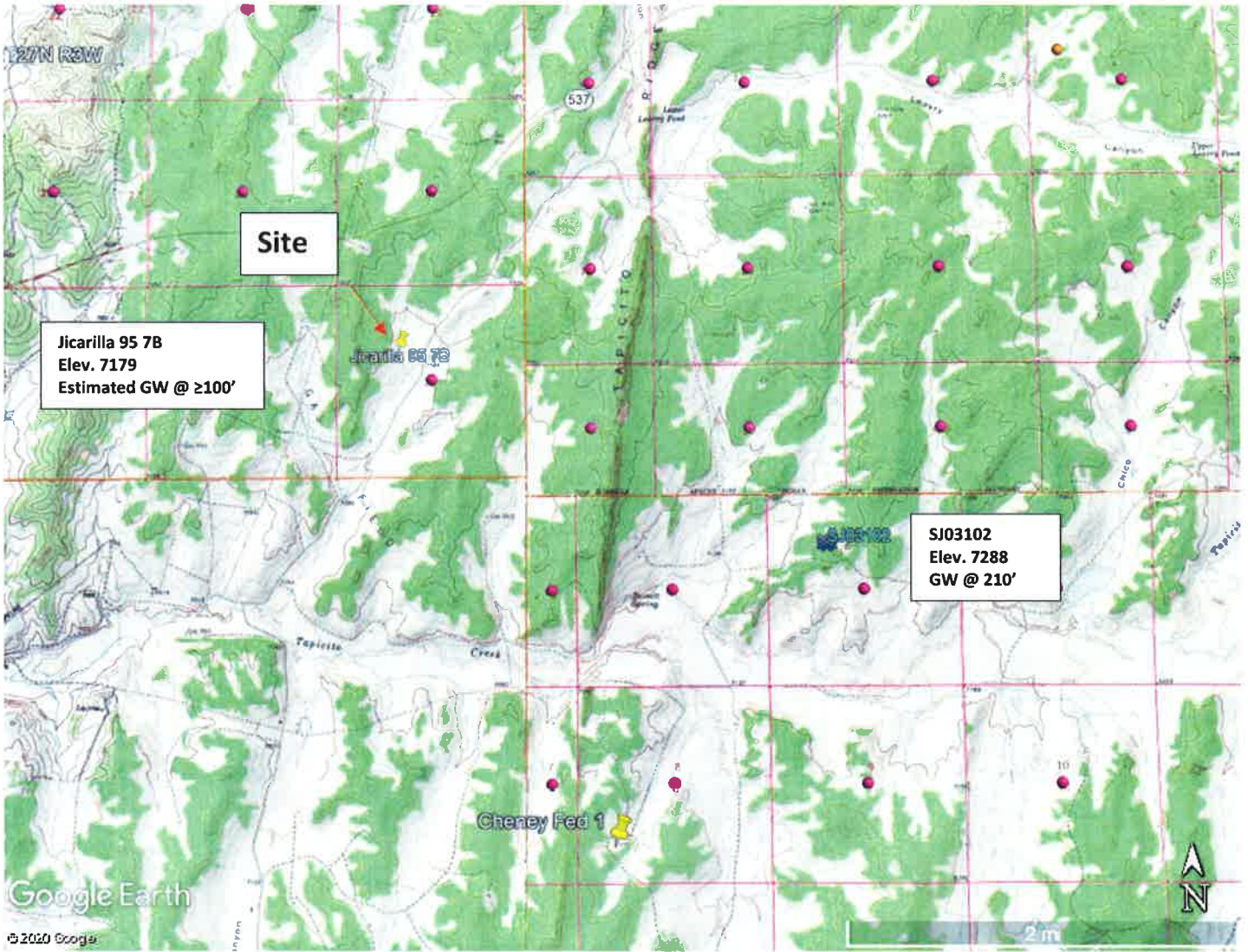
Sincerely,



Tamra Sessions  
Regulatory Specialist  
Office: 505-324-4145

[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)





Well Name: Jicarilla 95 7B  
API: 30-039-26854  
Section: 36 Township: 27N Range: 3W Unit: F  
Lat: 36.352089 Long: -107.099235 NAD 83

Scale



TOPO Site Map  
1/14/2021



# 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 Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">SJ 03102</a>	SJ	RA		1	4	1	04	26N	02W	315637	4043235*	3988	630	210	420

Average Depth to Water: 210 feet

Minimum Depth: 210 feet

Maximum Depth: 210 feet

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 312068.556      Northing (Y): 4045016.812      Radius: 5000

\*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.

**Tamra Sessions**

---

**From:** Tamra Sessions  
**Sent:** Thursday, November 12, 2020 1:09 PM  
**To:** Keith Manwell-JIC EPO (kcmanwell@yahoo.com)  
**Cc:** Marie Florez; Bryan Lovato; Jason Meehan; orsonharrison@jicarillaoga.com; Jason Sandoval (jasonsandoval@jicarillaoga.com)  
**Subject:** Jicarilla 95 7B - Proposed Work Plan

LOGOS will be on location Wednesday 11/18/20 with Kelley Oilfield Services to remove contaminated soil by moving separator. Envirotech will be conducting the sampling on location starting at noon and return to lab for testing. Upon sample results in 5 to 7 days meeting all requirements, LOGOS will provide the test results to the Jicarilla EPO and provide timing of backfill (if required) with clean soil. Location of backfill soil to be determined by Jicarilla if there is not sufficient soil on location. All contaminated material will hauled to an approved landfarm.

PTPW has been received from the BIA.

Jicarilla 95 7B  
JIC Lease 95  
F-36-27N-03W  
36.5320892,-107.0992355 NAD83  
API 30-039-26854

Tamra Sessions  
Regulatory Specialist  
Office 505-324-4145  
[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)



## Tamra Sessions

---

**From:** Tamra Sessions  
**Sent:** Wednesday, November 18, 2020 1:24 PM  
**To:** Cory Smith (cory.smith@state.nm.us); Powell, Brandon, EMNRD  
**Cc:** Marie Florez; Bryan Lovato; Jason Meehan; Keith Manwell-JIC EPO (kcmanwell@yahoo.com)  
**Subject:** Jicarilla 95 7B - Notification for Final Sampling - Variance Request

DO NOT NEED TO NOTIFY UNLESS WE HAUL MORE THAN 12 YARDS.

Keith Manwell (Jicarilla) was notified of this incident on June 23, 2020 but this was a non-reportable incident of less than 1bbl at the time.

LOGOS is now notifying OCD and requesting a variance to the 48 hour notice for final sample.

Today, we have already dug approximately 12 yds of contaminated soil, which appears to be a historic stain from previous ruptured disc on the separator.

Envirotech is on location and will continue to monitor/test sample until they believe we have clean soil.

API: 30-039-26854  
Well Name: Jicarilla 95 7B  
Section:36  
Township:27N  
Range: 3W  
Unit Letter: F

Tamra Sessions  
Regulatory Specialist  
Office 505-324-4145  
[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)



# Release Closure Report

## Jicarilla 95-7B

API #30-039-26854

Section 36, T27N, R3W

Rio Arriba County, New Mexico

December 2, 2020

Project #12035-0157



Ms. Tamra Sessions  
Regulatory Specialist  
2010 Afton Plance  
Farmington, New Mexico

Phone: (505) 787-2218

E-mail: [tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)



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# Table of Contents

Logos Operating  
Jicarilla 95-7B  
Release Closure Report  
API #30-039-26854  
Section 36, T27N, R3W  
Rio Arriba County, New Mexico

Introduction ..... 1

Regulatory Standards..... 1

Release Closure Activities..... 1

    Field Screening ..... 1

    Laboratory Analysis..... 2

        Laboratory Analytical Results ..... 2

Reclamation Activities ..... 2

Summary and Conclusions ..... 2

Statement of Limitations ..... 2

- Figures:      Figure 1, *Vicinity Map*  
                Figure 2, *Site Map*
- Appendices:    Appendix A, *Waste Disposal Documentation*  
                  Appendix B, *Field Notes with EPA 418.1 Field Screening Reports*  
                  Appendix C, *Site Photography*  
                  Appendix D, *Laboratory Analytical Reports*

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## Introduction

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted Logos Operating (Logos) to provide sampling activities for the closure of a release at the Jicarilla 95-7B well site (API: 30-039-26854) located within Section 36, Township 27 North, Range 3 West, Rio Arriba County, New Mexico; see **Figure 1, Vicinity Map**.

## Regulatory Standards

Based on requirements set forth by Jicarilla Oil and Gas Administration (JOGA) the following closure criteria from *19.15.29.12 New Mexico Administrative Code (NMAC)* were applied:

Constituent	Method	Limit
Chloride	EPA 300.0	600 mg/kg
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8260B	50 mg/kg
Benzene	EPA Method 8260B	10 mg/kg

## Release Closure Activities

During the removal of a separator and associated equipment from the subject site contaminated soil was discovered. Logos contractors conducted the release excavation activities on November 18 through 19, 2020. Logos contractors excavated and transported 43 cubic yards of petroleum contaminated soil (PCS) to Envirotech's New Mexico Oil Conservation Division (NMOCD) permitted soil remediation facility. Waste disposal documentation is provided in **Appendix A, Waste Disposal Documentation**.

## **Field Screening**

The excavation was monitored utilizing field screening methods conducted by Envirotech on November 18, 2020. Field screening results are summarized below and in **Appendix B, Field Notes with EPA 418.1 Field Screening Reports**.

Sample ID	VOC (ppm)	TPH (mg/kg)
West	2,579	470
East	2,368	233
Base	1,164	108
Base + 1.5'	0.0	29
Base @ 4'	0.0	24

### Laboratory Analysis

Per direction from Keith Manwell, JOGA Environmental Specialist, Envirotech personnel collected a five-point composite sample from the excavation base on November 18, 2020. The sample was collected from approximately 4 feet below ground surface (bgs). The soil sample was placed into individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory. The soil sample location is illustrated in **Figure 2, Site Map and Appendix C, Site Photography**.

#### Laboratory Analytical Results

The soil sample was analyzed per analytical methods referenced in 19.15.29.12 NMAC. The laboratory analytical results were below laboratory detection limits for all contaminants of concern. Analytical results are summarized below and in **Appendix D, Laboratory Analytical Report**.

Sample Description	Date	Sample Depth	EPA Method 8015			EPA Method 8260		EPA Method 300.0
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
JOGA & NMOCD Release Closure Criteria (Table 1 - 19.15.29.12 NMAC)			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
Base	11/18/20	4 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0

### Reclamation Activities

Logo's contractor completed the backfill of the subject excavation on December 2, 2020. The excavation was backfilled with non-waste containing, earthen material. The site was recontoured and graded to prevent ponding and erosion. New equipment was placed back into service within the former release site; therefore, reseeding was not necessary. Backfill photos are provided in **Appendix C**.

### Summary and Conclusions

On November 18, 2020, Envirotech personnel completed confirmation sampling, under the direction of JOGA, for release closure remediation that was completed at the Jicarilla 97-7B well site. Based on the analytical results, all contaminants of concern are below the JOGA and NMOCD closure criteria; therefore, Envirotech recommends requesting a **No Further Action** status from JOGA and NMOCD regarding the release closure.

### Statement of Limitations

The work and services provided were in accordance with JOGA and NMOCD standards. All observations and conclusions provided here are based on the information and current site

conditions found at the subject well site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,  
**ENVIROTECH, INC.**

Reviewed by:



Brittany Hall  
Staff Scientist  
[bhall@envirotech-inc.com](mailto:bhall@envirotech-inc.com)



Felipe Aragon, CHMM, CES  
Environmental Assistant Manager  
[faragon@envirotech-inc.com](mailto:faragon@envirotech-inc.com)

# Figures

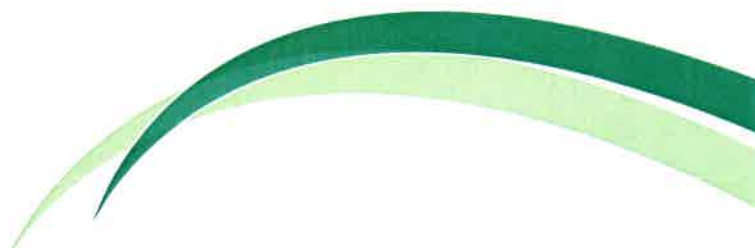
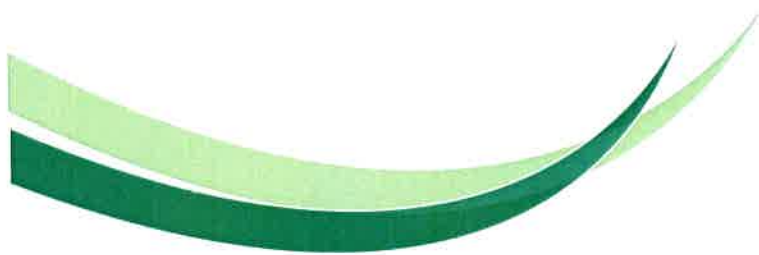
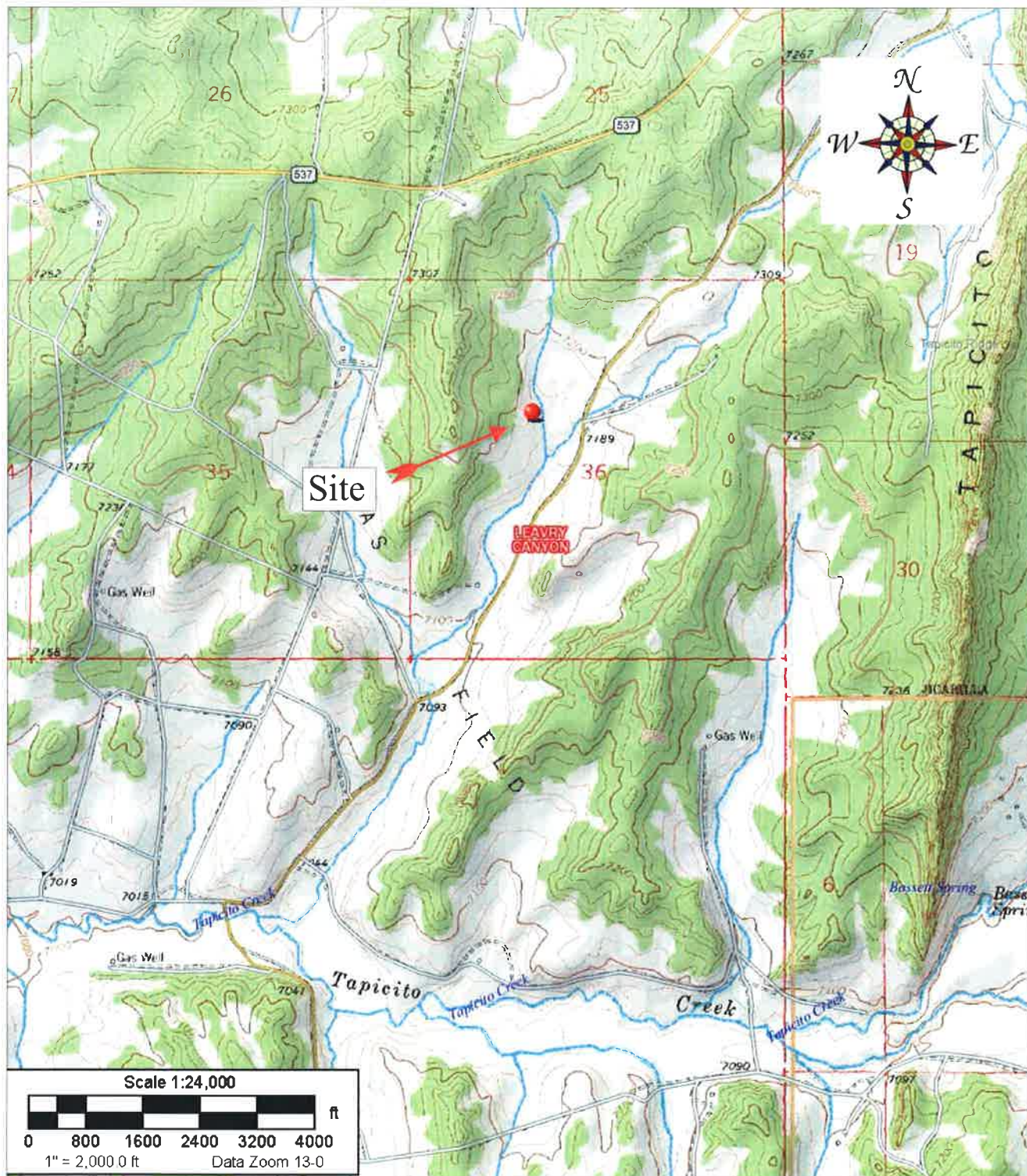


Figure 1, *Vicinity Map*

Figure 2, *Site Map*







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Source: 7.5 Minute, Leavry, New Mexico U.S.G.S. Topographic Quadrangle Map  
Scale: 1:24,000 1" = 2,000

<p>Logos Resources, LLC Release Closure Report Jicarilla 95-7B Well Site API: 30-039-26854 Rio Arriba County, New Mexico Section 36, Township 27N, Range 3W</p>	<p> ENVIRONMENTAL SCIENTISTS &amp; ENGINEERS</p> <p>5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615</p>	Vicinity Map	
<p>Project Number: 12035-0157      Date Drawn: 12/7/2020</p>		DRAWN BY: Brittany Hall	PROJECT MANAGER: Felipe Aragon

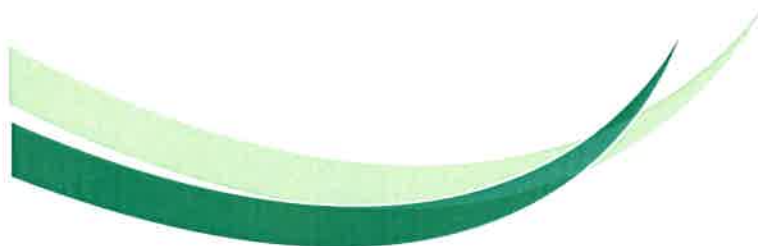


<p>Legend</p> <p> - Excavation</p> <p> - Base (Composite Sample)</p> <p></p> <p> <b>envirotech</b></p> <p>5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615</p>		<p>MAP DRAWN BY: BAH 12/7/2020</p> <p>REVISIONS BY: NAME DATE</p> <p>APPROVED BY: NAME DATE</p> <p>Scale 1" = 50'</p>	<p>Figure 2, Site Map</p> <p>Logos Resources, LLC Release Closure Report Jicarilla 95-7B Well Site API: 30-039-26854 Rio Arriba County, New Mexico Section 36 Township 27N, Range 3W Project #12035-0157</p>
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# Appendix A



## *Waste Disposal Documentation*



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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-138  
Revised August 1, 2011

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

12035-0155

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

**1. Generator Name and Address:**

LOGOS Operating, LLC, Tamra Sessions  
2010 Afton Place, Farmington, NM 87401

**2. Originating Site:**

Jicarilla 95 7B

11/10/20

**3. Location of Material (Street Address, City, State or ULSTR):**

UL F, Section 36, T27N, 03W Rio Arriba County, NM

Nov 2020

**4. Source and Description of Waste:**

Dirt contaminated with produced oil and water

Estimated Volume 3yds yd<sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) 43 yd<sup>3</sup> / bbls

**5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Tamra Sessions, representative or authorized agent for Logos Operating, LLC do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☒ Monthly ☐ Weekly ☐ Per Load

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**

I, Tamra Sessions, representative for Logos Operating, LLC authorize Envirotech to complete the required testing/sign the Generator Waste Testing Certification.

I, \_\_\_\_\_, representative for Envirotech Inc. Soil Remediation Facility do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

**5. Transporter:**

Various

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Envirotech inc. Soil Remediation Facility Permit # NM-01-0011

Address of Facility: #43 Road 7175 South of Bloomfield NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

**Waste Acceptance Status:**

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree

TITLE: Enviro Manager

DATE: 11/18/2020

SIGNATURE: [Signature]  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: (505) 632-1782



envirotech

## Bill of Lading

MANIFEST # 67762

GENERATOR LOGOS

POINT OF ORIGIN TIA 95-7B

TRANSPORTER Kelley oil field

DATE 11-18-20 JOB # 12035-0174

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

[illegible]

Generator Onsite Contact	Phone
--------------------------	-------

*Signatures required prior to distribution of the legal document.*

**DISTRIBUTION**    **White** - Company Records,    **Yellow** - Billing,    **Pink** - Customer,    **Goldenrod** - LF Copy

5342 JIAN, ZHANG, AND ZHANG



BOL# 67762

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 11-18-20 TIME 1640 Attach test strip here

CUSTOMER Logos

SITE Jic 95-7B

DRIVER [Signature]

SAMPLE Soil Straight / With Dirt       

CHLORIDE TEST 299 mg/Kg

ACCEPTED YES / NO       

PAINT FILTER TEST Time started 1640 Time completed 1652

PASS YES        NO       

SAMPLER/ANALYST Cory Robinson



5796 US Hwy 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com



envirotech

## Bill of Lading

MANIFEST # 67773

GENERATOR Logans

POINT OF ORIGIN File 95-713

TRANSPORTER Kelley Oilfield

DATE 11-19-20 JOB # 12035-0155

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

[illegible]

### Generator Onsite Contact

Phone

*Signatures required prior to distribution of the legal document.*

### DISTRIBUTION

### White - Company Records.

Yellow • Billing

**Pink - Customer.**

Goldenrod - LF Copy

SLAVE JUSTICE FRONTIERES 1021



BOL# 67773

### CHLORIDE TESTING / PAINT FILTER TESTING

DATE 11-19-20 TIME 1040 Attach test strip here

CUSTOMER 20905

SITE Jic 95-7B

DRIVER [Signature]

SAMPLE Soil Straight / With Dirt       

CHLORIDE TEST 299 mg/Kg

ACCEPTED YES        NO       

PAINT FILTER TEST Time started 1040 Time completed 1052

PASS YES        NO       

SAMPLER/ANALYST Camp Robinson



5796 US Hwy 64, Farmington, NM 87401 || Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 || info@envirotech-inc.com envirotech-inc.com

## Appendix B



### *Field Notes with EPA 418.1 Field Screening Reports*



Practical Solutions for a Better Tomorrow

Released to Imaging: 7/1/2022 9:01:11 AM

Page 2 Of 2



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 18-Nov-20

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	205
	200	
	500	
	1000	
	5000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

*Brittany Hall*

Analyst

10/9/2020

Date

Brittany Hall

Print Name

*Felipe Aragon*

Review

10/9/2020

Date

Felipe Aragon, CES, CHMM

Print Name



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Logos	Project #:	20050-0001
Sample No.:	1	Date Reported:	10/9/2020
Sample ID:	West Excavation	Date Sampled:	11/18/2020
Sample Matrix:	Soil	Date Analyzed:	11/18/2020
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>1,880</b>	<b>5.0</b>
-------------------------------------	--------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

*Brittany Hall*

Analyst

Brittany Hall

Printed

*Felipe Aragon*

Review

Felipe Aragon, CES, CHMM

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Logos	Project #:	20050-0001
Sample No.:	2	Date Reported:	10/9/2020
Sample ID:	East Excavation	Date Sampled:	11/18/2020
Sample Matrix:	Soil	Date Analyzed:	11/18/2020
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
<b>Total Petroleum Hydrocarbons</b>	<b>932</b>	<b>5.0</b>

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Brittany Hall  
Analyst

Brittany Hall  
Printed

Felipe Aragon  
Review

Felipe Aragon, CES, CHMM  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Logos	Project #:	20050-0001
Sample No.:	3	Date Reported:	10/9/2020
Sample ID:	Base of ex	Date Sampled:	11/18/2020
Sample Matrix:	Soil	Date Analyzed:	11/18/2020
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>432</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

*Brittany Hall*

Analyst

Brittany Hall

Printed

*Felipe Aragon*

Review

Felipe Aragon, CES, CHMM

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Logos	Project #:	20050-0001
Sample No.:	4	Date Reported:	10/9/2020
Sample ID:	Base + 1.5'	Date Sampled:	11/18/2020
Sample Matrix:	Soil	Date Analyzed:	11/18/2020
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>116</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

*Brittany Hall*

Analyst

Brittany Hall

Printed

*Felipe Aragon*

Review

Felipe Aragon, CES, CHMM

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Logos	Project #:	20050-0001
Sample No.:	5	Date Reported:	10/9/2020
Sample ID:	Base @ 4'	Date Sampled:	11/18/2020
Sample Matrix:	Soil	Date Analyzed:	11/18/2020
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>96</b>	<b>5.0</b>
-------------------------------------	-----------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

*Brittany Hall*

Analyst

Brittany Hall

Printed

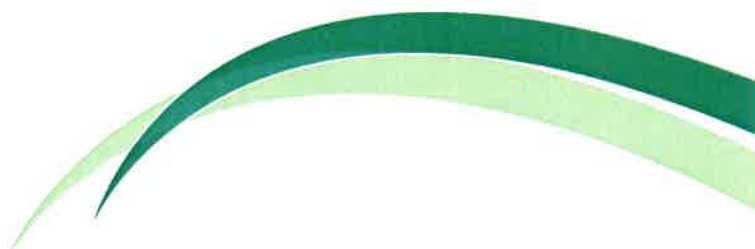
*Felipe Aragon*

Review

Felipe Aragon, CES, CHMM

Printed

## Appendix C



### *Site Photography*



Practical Solutions for a Better Tomorrow

Site Photography  
Logos Resources  
Release Closure Report  
Jicarilla 95-7B Well Site  
Rio Arriba County, New Mexico  
Project #12035-0157  
November 2020

November 18, 2020



Picture 1: Excavation Base



Picture 2: Excavation Base and Sidewalls

Site Photography  
Logos Resources  
Release Closure Report  
Jicarilla 95-7B Well Site  
Rio Arriba County, New Mexico  
Project #12035-0157  
November 2020

December 2, 2020

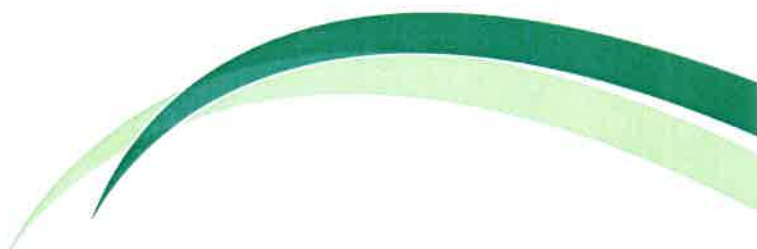


Picture 3: Backfill with New Footers

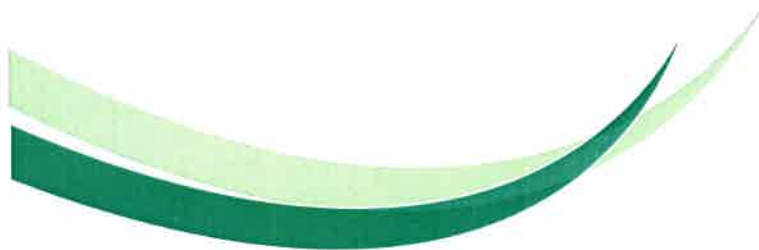


Picture 4: Equipment Placement

## Appendix D



### *Laboratory Analytical Report*



Practical Solutions for a Better Tomorrow

Report to:  
Felipe Aragon



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: Jicarilla 95-7B Confirmation  
Sampling  
Work Order: E011061  
Job Number: 12035-0157  
Received: 11/18/2020

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/25/20

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: 11/25/20

Felipe Aragon  
PO Box 18  
Flora Vista, NM 87415



Project Name: Jicarilla 95-7B Confirmation Sampling  
Workorder: E011061  
Date Received: 11/18/2020 3:50:00PM

Felipe Aragon,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/18/2020 3:50:00PM, under the Project Name: Jicarilla 95-7B Confirmation Sampling.

The analytical test results summarized in this report with the Project Name: Jicarilla 95-7B Confirmation Sampling 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 regarding 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

Table of Contents

Title Page 1

Cover Page 2

Table of Contents 3

Sample Summary 4

Sample Data 5

    Base 5

QC Summary Data 6

    QC - Volatile Organic Compounds by EPA 8260B 6

    QC - Nonhalogenated Organics by EPA 8015D - GRO 7

    QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO 8

    QC - Anions by EPA 300.0/9056A 9

Definitions and Notes 10

Chain of Custody etc. 11

### Sample Summary

Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0157 Project Manager: Felipe Aragon	Reported: 11/25/20 10:38
--	---	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base	E011061-01A	Soil	11/18/20	11/18/20	Glass Jar, 4 oz.
	E011061-01B	Soil	11/18/20	11/18/20	Glass Jar, 4 oz.



## Sample Data

Logos Operating, LLC	Project Name:	Jicarilla 95-7B Confirmation Sampling	<b>Reported:</b> 11/25/2020 10:38:32AM
PO Box 18	Project Number:	12035-0157	
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	

### Base E011061-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2048006
Benzene	ND	0.0250	1	11/23/20	11/25/20	
Toluene	ND	0.0250	1	11/23/20	11/25/20	
Ethylbenzene	ND	0.0250	1	11/23/20	11/25/20	
p,m-Xylene	ND	0.0500	1	11/23/20	11/25/20	
o-Xylene	ND	0.0250	1	11/23/20	11/25/20	
Total Xylenes	ND	0.0250	1	11/23/20	11/25/20	
Surrogate: 1,2-Dichloroethane-d4	96.2 %	70-130		11/23/20	11/25/20	
Surrogate: Toluene-d8	110 %	70-130		11/23/20	11/25/20	
Surrogate: Bromofluorobenzene	98.5 %	70-130		11/23/20	11/25/20	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2048006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/23/20	11/25/20	
Surrogate: 1,2-Dichloroethane-d4	96.2 %	70-130		11/23/20	11/25/20	
Surrogate: Toluene-d8	110 %	70-130		11/23/20	11/25/20	
Surrogate: Bromofluorobenzene	98.5 %	70-130		11/23/20	11/25/20	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AC		Batch: 2048003
Diesel Range Organics (C10-C28)	ND	25.0	1	11/23/20	11/23/20	
Oil Range Organics (C28-C35)	ND	50.0	1	11/23/20	11/23/20	
Surrogate: n-Nonane	89.0 %	50-200		11/23/20	11/23/20	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: NE		Batch: 2047017
Chloride	ND	20.0	1	11/19/20	11/19/20	



## QC Summary Data

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

Project Name: Jicarilla 95-7B Confirmation Sampling  
Project Number: 12035-0157  
Project Manager: Felipe Aragon

Reported:  
11/25/2020 10:38:32AM

### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2048006-BLK1)

Prepared: 11/23/20 Analyzed: 11/25/20

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: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.543		0.500		109	70-130			
Surrogate: Bromofluorobenzene	0.485		0.500		96.9	70-130			

#### LCS (2048006-BS1)

Prepared: 11/23/20 Analyzed: 11/25/20

Benzene	2.45	0.0250	2.50		98.0	70-130			
Toluene	2.66	0.0250	2.50		106	70-130			
Ethylbenzene	2.58	0.0250	2.50		103	70-130			
p,m-Xylene	4.87	0.0500	5.00		97.5	70-130			
o-Xylene	2.42	0.0250	2.50		96.8	70-130			
Total Xylenes	7.29	0.0250	7.50		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.551		0.500		110	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.8	70-130			

#### Matrix Spike (2048006-MS1)

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/25/20

Benzene	2.57	0.0250	2.50	ND	103	48-131			
Toluene	2.85	0.0250	2.50	ND	114	48-130			
Ethylbenzene	2.77	0.0250	2.50	ND	111	45-135			
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135			
o-Xylene	2.61	0.0250	2.50	ND	104	43-135			
Total Xylenes	7.84	0.0250	7.50	ND	105	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.4	70-130			
Surrogate: Toluene-d8	0.551		0.500		110	70-130			
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			

#### Matrix Spike Dup (2048006-MSD1)

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/25/20

Benzene	2.60	0.0250	2.50	ND	104	48-131	1.05	23	
Toluene	2.86	0.0250	2.50	ND	114	48-130	0.385	24	
Ethylbenzene	2.78	0.0250	2.50	ND	111	45-135	0.324	27	
p,m-Xylene	5.25	0.0500	5.00	ND	105	43-135	0.315	27	
o-Xylene	2.61	0.0250	2.50	ND	105	43-135	0.191	27	
Total Xylenes	7.86	0.0250	7.50	ND	105	43-135	0.274	27	
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.542		0.500		108	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.2	70-130			



## QC Summary Data

Logos Operating, LLC	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
PO Box 18	Project Number:	12035-0157	
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	11/25/2020 10:38:32AM

### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	---------------	--------------------	----------	-------------------	-------

**Blank (2048006-BLK1)**

Prepared: 11/23/20 Analyzed: 11/25/20

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.543		0.500		109	70-130			
Surrogate: Bromofluorobenzene	0.485		0.500		96.9	70-130			

**LCS (2048006-BS2)**

Prepared: 11/23/20 Analyzed: 11/25/20

Gasoline Range Organics (C6-C10)	48.3	20.0	50.0		96.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.6	70-130			
Surrogate: Toluene-d8	0.556		0.500		111	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			

**Matrix Spike (2048006-MS2)**

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/25/20

Gasoline Range Organics (C6-C10)	50.1	20.0	50.0	ND	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.554		0.500		111	70-130			
Surrogate: Bromofluorobenzene	0.483		0.500		96.5	70-130			

**Matrix Spike Dup (2048006-MSD2)**

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/25/20

Gasoline Range Organics (C6-C10)	43.4	20.0	50.0	ND	86.9	70-130	14.2	20	
Surrogate: 1,2-Dichloroethane-d4	0.488		0.500		97.6	70-130			
Surrogate: Toluene-d8	0.550		0.500		110	70-130			
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			



## QC Summary Data

Logos Operating, LLC	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
PO Box 18	Project Number:	12035-0157	
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	11/25/2020 10:38:32AM

### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AC

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

#### Blank (2048003-BLK1)

Prepared: 11/23/20 Analyzed: 11/23/20

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	51.4		50.0		103	50-200			

#### LCS (2048003-BS1)

Prepared: 11/23/20 Analyzed: 11/23/20

Diesel Range Organics (C10-C28)	410	25.0	500		82.0	38-132			
Surrogate: n-Nonane	43.9		50.0		87.8	50-200			

#### Matrix Spike (2048003-MS1)

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/23/20

Diesel Range Organics (C10-C28)	428	25.0	500	ND	85.7	38-132			
Surrogate: n-Nonane	43.8		50.0		87.7	50-200			

#### Matrix Spike Dup (2048003-MSD1)

Source: E011061-01 Prepared: 11/23/20 Analyzed: 11/23/20

Diesel Range Organics (C10-C28)	411	25.0	500	ND	82.2	38-132	4.12	20	
Surrogate: n-Nonane	41.1		50.0		82.3	50-200			

## QC Summary Data

Logos Operating, LLC	Project Name:	Jicarilla 95-7B Confirmation Sampling	<b>Reported:</b>
PO Box 18	Project Number:	12035-0157	
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	11/25/2020 10:38:32AM

### Anions by EPA 300.0/9056A

Analyst: NE

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
<b>Blank (2047017-BLK1)</b>						Prepared: 11/19/20 Analyzed: 11/19/20			
Chloride	ND	20.0							
<b>LCS (2047017-BS1)</b>						Prepared: 11/19/20 Analyzed: 11/19/20			
Chloride	253	20.0	250		101	90-110			
<b>Matrix Spike (2047017-MS1)</b>						<b>Source: E011041-01</b> Prepared: 11/19/20 Analyzed: 11/19/20			
Chloride	428	20.0	250	173	102	80-120			
<b>Matrix Spike Dup (2047017-MSD1)</b>						<b>Source: E011041-01</b> Prepared: 11/19/20 Analyzed: 11/19/20			
Chloride	437	20.0	250	173	106	80-120	2.25	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:	Jicarilla 95-7B Confirmation Sampling	
PO Box 18	Project Number:	12035-0157	<b>Reported:</b>
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	11/25/20 10:38

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.



Page 11 of 12

## Envirotech Analytical Laboratory

Printed: 11/19/2020 9:41:21AM

## 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: 11/18/20 15:50	Work Order ID: E011061
Phone: (505)215-8215	Date Logged In: 11/19/20 09:35	Logged In By: Alexa Michaels
Email:	Due Date: 11/25/20 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
  4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
  5. Were all samples received within holding time? Yes
- Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Brittany HallSample Turn Around Time (TAT)

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

Sample Cooler

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

Email- Felipe, Tami, Greg, Brittany, Isaac, Clay, Damon

Comments/Resolution

Email- Felipe, Tami, Greg, Brittany, Isaac, Clay, Damon

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 18362

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 18362
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/1/2022