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-144
Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

OIL CONS. DIV DIST. 3

JUN 29 2016

15331

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: LOGOS Operating, LLC OGRID #: 289408
Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401
Facility or well name: **LOGOS JICARILLA 9P**
API Number: 30-039-31338 OCD Permit Number:
U/L or Qtr/Qtr P Section 09 Township 25N Range 05W County: Rio Arriba
Center of Proposed Design: Latitude 36.409996 ° N Longitude 107.359671 ° W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☒ yes ☐ no
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other _____ Volume: 16,000 bbl Dimensions: L 135' x W 75' x D 10'

3.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify

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6.
Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.
Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.
Variances and Exceptions:
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.
Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: _____ **Approval Date:** _____

Title: _____ **OCD Permit Number:** _____

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date: 5/25/2016**

20.
Closure Method:

☐ Waste Excavation and Removal ☒ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☒ Plot Plan (for on-site closures and temporary pits)
- ☐ Confirmation Sampling Analytical Results (if applicable)
- ☒ Waste Material Sampling Analytical Results (required for on-site closure)
- ☒ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude **36.409996** ° N _____ Longitude **107.359671** ° W _____ NAD: ☐ 1927 ☒ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Tamra Sessions Title: Regulatory Specialist

Signature: Tam Sessions Date: 6-29-16

e-mail address: tsessions@logosresourcesllc.com Telephone: 505-436-3790

Logos Operating, LLC
San Juan Basin
Closure Report

Lease Name: LOGOS JICARILLA 9P
API NO: 30-039-31338

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Logos Operating, LLC (Logos) locations. This is Logos' standard procedure for all temporary pits. A Separate plan will be submitted for any temporary pit that does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed on C-144 and incorporated the following:

- Detail on Capping and Covering, where applicable **(See report)**
- Plot Plan (Pit diagram) **(Included as an attachment)**
- Inspection reports **(Included as an attachment)**
- Sampling Results **(Included as an attachment)**
- C-105 **(Included as an attachment)**
- Copy of Deed Notice will be filed with County Clerk **(Not required on Federal, State or Tribal land as stated by FAQ dated October 30, 2008)**

General Plan

1 All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.

All recovered liquids were disposed of at TNT (permit #NM001-0008) and any sludge or soil required to be removed to facilitate closure was hauled to TNT (permit #NM001-0008).

2 The preferred method of closure for all temporary pits will be on-site burial, assuming that all criteria listed in sub-section (D) of 19.15.17.13 are met.

The pit was closed using onsite burial.

3 The surface owner shall be notified of Logos proposed closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested.

The closure process notification to the landowner was sent via email. (See attached)

***Variance Explanation: Rule 19.15.17.13 E. If the surface owner is a public entity (BLM/State/Tribal) then an email notification will be sent, of plans to close the temporary pit at least 72 hours, but no more than 1 week, prior to any closure operation. The notice will include the well name, API number, and location.**

4 Within 6 months of the Rig Off status occurring Logos will ensure that temporary pits are closed, re-contoured, and reseeded.

The closure plan requirements were met due to rig move off date as noted on C-105. (See attached). Pit closure extension to 6/21/16 was requested of the BIA per letter dated 3/8/16 and approved.

5 Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally, The notification of closure will include the following:
   i. Operator's name
   ii. Location by Unit Letter, Section, Township, and Range. Well name and API Number

Notification is attached.

6 Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.

Logos mixed the pit contents with non-waste containing, earthen material in order to achieve the solidification process. The solidification process was accomplished by using a combination of natural drying and mechanically mixing. Pit contents were mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio consisted of not more than 3 parts clean soil to 1 part pit contents.

7 A five point composite sample will be taken of the pit using sampling tools and all samples tested per 19.15.17.13(D)(5). In the event that the criteria are not met, all contents will be handled per 9.15.17.13(D)(7) i.e., Dig and haul.

A five point composite sample was taken of the pit using sampling tools and all samples tested per 19.15.17.13(D)(5). (Sample results attached).

Components	Test Method	Limit (mg/Kg)	Results (ppm)
		>100' bottom of pit to GW	
Benzene	EPA SW-846 8021B or 8015M	10	SEE
BTEX	EPA SW-846 8021B or 8260B	50	ATTACHED
TPH	EPA SW-846 418.1	2500	
GRO/DRO	EPA SW-846 8015M	1000	
Chlorides	EPA 300.0	80000	

8 Upon completion of solidification and testing, Logos will fold the outer edges of the trench liner to overlap the waste material in the pit area, then install a geomembrane cover over the waste material in the pit to prevent collections of infiltration water after the soil cover is in place; geomembrane a 20-mil, string reinforced, LLDPE liner, or equivalent complying with EPA SW-846 method 9090A requirements.

The pit material passed solidification and testing standards. Logos folded the outer edges of the trench liner to overlap the waste material in the pit area, then installed a geomembrane cover over the waste material and folded liner as per 19.15.17.13(8)(a)(b).

9 The pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

The pit area was then backfilled with compacted, non-waste containing, earthen material. Four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site. (prior to folding over liner and to enable LOGOS to achieve the minimum four foot of cover, approximately 420yds of excess fill was hauled to TNT)

10 Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

The pit area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Reshaping included drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final re-contour has a uniform appearance with smooth surface, fitting the natural landscape.

11 Notification will be sent to OCD when the reclaimed area is seeded.

Provision 11 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.

12 Logos shall seed the distributed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixed will be used on federal lands. Vegetative cover will be established that will reflect a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and will equal seventy (70%) of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover thorough twp successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Provision 12 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.

13 The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name. Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

Provision 13 was accomplished by installing a steel marker in the temporary pit, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker is flush with the ground to allow access of the active well pad and for safety concerns. The top of the marker contains a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate contains the following: Operator's name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the following operator's information at the time of all wells on the pad are abandoned. The riser will also indicate that the marker is for an onsite burial location.

Operator Name: LOGOS
Lease Name & Well Number: LOGOS JICARILLA 9P
Unit Letter: P
Section: 9
Township: 25N
Range: 5W
API#: 30-039-31338
OBL

14 Logos inspected and documented daily and weekly reports on the above Temporary Pit. Logos inspected any liner breeches, fluid seeps or spills, HC's on top of temporary pit, free of miscellaneous solid waste or debris, discharge line integrity, fence integrity, any dead wildlife or livestock and inspection of the freeboard. Logos will provide maintained documentation of inspections upon request.

Inspection Start Date: 11/24/15
Inspection End Date: 5/23/16
NOTE: During start and end dates of temporary pit inspections no issues found.

Tamra Sessions

From: Tamra Sessions
Sent: Thursday, August 27, 2015 11:35 AM
To: Kurt Sandoval (kurt.sandoval@bia.gov)
Cc: Marlena Reval (marlena.reval@bia.gov); Deedra Mike (Deedra.Mike@bia.gov); CascindraWillie@jicarillaoga.com; guillermo.deherrera@jicarillaoga.com
Subject: Logos Jicarilla 9P_SURFACE OWNER NOTIFICATION for Temporary Pit 08-27-15

Logos Jicarilla 9P
JAN Lease 146
P, Section 9, T25N, R05W
Rio Arriba County

According to NMOCD rules, Logos Operating, LLC is notifying you, as the surface owner, that there will be a temporary pit on the subject well and that they intend to bury the drill cuttings in the reserve pit, assuming that they qualify as per Subsection D of 19.15.17.13 NMAC. No action is required on your part. If you have any questions, please do not hesitate to call me. Please let me know if I need to add anyone else to this notification.

Thank you,

Tamra Sessions
Logos Resources, LLC
Operations Technician
tsessions@logosresourcesllc.com
(o) 505-436-2606
(c) 505-330-9333

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
JICARILLA AGENCY
P.O. BOX 167
DULCE, NEW MEXICO 87528

IN REPLY REFER TO:
Branch of Real Estate Services

MAR 25 2016

Ms. Tamra Sessions
Logos Resources, LLC
4001 North Butler Boulevard, Building 7101
Farmington, New Mexico 87401

Dear Ms. Sessions:

This is in response to your request, dated **March 21, 2016,** for permission to Extend Pit Closure (EPC) on the following location, which is on Tribal Surface:

Lease No. 146, Logos Jicarilla #9P:
Located in Section 9, Township 25 North, Range 5 West, N.M.P.M. Rio Arriba County, New Mexico (API No. 30-039-31338).

Scope of Work:
Scheduled Completion Date: December 21, 2015
Scheduled Closure Date: March 21, 2016
Extended Closure Date: June 21, 2016

The Bureau of Indian Affairs, Jicarilla Agency, hereby grants Logos Resources, LLC and its contractors permission to extend pit closure on the above indicated location. Please submit an affidavit of completion or final report when completed.

If you have any questions or concerns, please contact Mr. Kurt Sandoval, Realty Officer, at (575) 759-3936.

Sincerely,

Superintendent

cc: Jicarilla Oil and Gas Administration

Tamra Sessions

From: Tamra Sessions
Sent: Tuesday, May 10, 2016 10:17 AM
To: brandon.powell@state.nm.us; Cory Smith (cory.smith@state.nm.us); Mike Flaniken (mflanike@blm.gov); Kurt Sandoval (kurt.sandoval@bia.gov); Jason Sandoval (jasonsandoval@jicarillaoga.com); Wayne Ritter (writter@logosresourcesllc.com); Bryce Hammond (brycehammond@jicarillaoga.com); 'Cascindra Willie'
Cc: Deedra Mike (Deedra.Mike@bia.gov); Marlena Reval (marlena.reval@bia.gov)
Subject: Logos Jicarilla 9P_Jicarilla Pit Closure & Reclamation 72hr notice

LOGOS JICARILLA 9P
Jicarilla Lease 146
API #30-039-31338
UL P, Section 09, T25N, R05W

Logos Operating is giving 72hr notice of plans to start temporary pit closure operations on Monday, May 16, 2016. Interim reclamation operations will follow closure of the pit.

Tamra Sessions
Logos Resources, LLC
Operations Technician
tsessions@logosresourcesllc.com
(o) 505-436-3790 (ext #106)
(c) 505-330-9333

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-31338	97232	BASIN MANCOS

4 Property Code	5 Property Name	6 Well Number
315641	LOGOS JICARILLA	9P

7 OGRID No.	8 Operator Name	9 Elevation
289408	LOGOS OPERATING, LLC	6755

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	9	25-N	5-W		901	SOUTH	1063	EAST	RIO ARRIBA

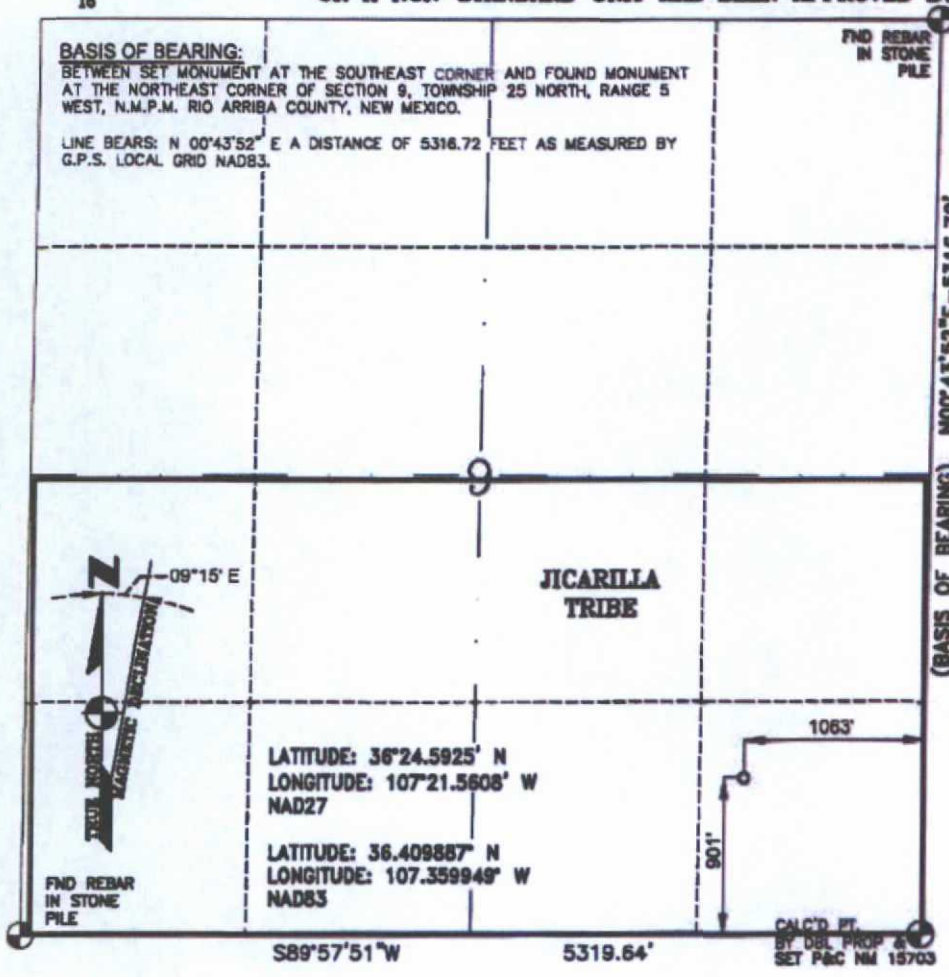
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
BM 320 acres S/2			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Tamra Sessions 7-15-15
Signature Date

Tamra Sessions
Printed Name

tsessions@logosresourcesllc.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 8, 2015
Date of Survey

Signature and Seal of Professional Surveyor: GLEN W. RUSSELL NEW MEXICO 15703 LICENSED PROFESSIONAL SURVEYOR

GLEN W. RUSSELL
Certificate Number 15703

envirotech
Analytical Laboratory

TOP Soil
Fill Dirt
pass

Analytical Report

Report Summary

Client: Logos Resources

Chain Of Custody Number:

Samples Received: 2/22/2016 1:50:00PM

Job Number: 13066-0001

Work Order: P602025

Project Name/Location: Logos Jic 9P

Entire Report Reviewed By: _____ Date: 2/29/16

Tim Cain, Laboratory Manager

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Backfill Material	P602025-01A	Soil	02/10/16	02/22/16	Plastic Baggie
Top Soil Material	P602025-02A	Soil	02/16/16	02/22/16	Plastic Baggie

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Backfill Material

P602025-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
Toluene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
o-Xylene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
Total BTEX	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	H2
Surrogate: 4-Bromochlorobenzene-PID		*99.7 %*		*50-150*	*1609011*	*02/23/16*	*02/26/16*	*EPA 8021B*	*H2*
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8015D	H2
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/23/16	02/25/16	EPA 8015D	
Surrogate: n-Nonane		*95.8 %*		*50-200*	*1609012*	*02/23/16*	*02/25/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.0 %*		*50-150*	*1609011*	*02/23/16*	*02/26/16*	*EPA 8015D*	*H2*
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	40.0	mg/kg	1	1609017	02/25/16	02/25/16	EPA 418.1	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Top Soil Material

P602025-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*		*50-150*	*1609011*	*02/23/16*	*02/26/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**86.4**	20.0	mg/kg	1	1609011	02/23/16	02/26/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/23/16	02/25/16	EPA 8015D	
Surrogate: n-Nonane		*93.7 %*		*50-200*	*1609012*	*02/23/16*	*02/25/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.9 %*		*50-150*	*1609011*	*02/23/16*	*02/26/16*	*EPA 8015D*	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**66.0**	40.0	mg/kg	1	1609017	02/25/16	02/25/16	EPA 418.1	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

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Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

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
Batch 1609011 - Purge and Trap EPA 5030A										
Blank (1609011-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*0.160*		"	*0.160*		*99.8*	*50-150*			
LCS (1609011-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.7	0.10	mg/kg	10.0		117	70-130			
Toluene	11.7	0.10	"	10.0		117	70-130			
Ethylbenzene	11.8	0.10	"	10.0		118	70-130			
p,m-Xylene	23.5	0.20	"	20.0		118	70-130			
o-Xylene	11.5	0.10	"	10.0		115	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*0.162*		"	*0.160*		*101*	*50-150*			
Matrix Spike (1609011-MS1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.2	0.10	mg/kg	10.0	ND	112	54.3-133			
Toluene	11.1	0.10	"	10.0	ND	111	61.4-130			
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133			
p,m-Xylene	22.4	0.20	"	20.0	ND	112	63.3-131			
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*0.161*		"	*0.160*		*101*	*50-150*			
Matrix Spike Dup (1609011-MSD1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.1	0.10	mg/kg	10.0	ND	112	54.3-133	0.193	20	
Toluene	11.1	0.10	"	10.0	ND	111	61.4-130	0.199	20	
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133	0.100	20	
p,m-Xylene	22.3	0.20	"	20.0	ND	112	63.3-131	0.149	20	
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131	0.129	20	
Surrogate: 4-Bromochlorobenzene-PID	*0.161*		"	*0.160*		*101*	*50-150*			

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609011 - Purge and Trap EPA 5030A										
Blank (1609011-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.145*		"	*0.160*		*90.5*	*50-150*			
LCS (1609011-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	123	20.0	mg/kg	106		116	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.143*		"	*0.160*		*89.2*	*50-150*			
Matrix Spike (1609011-MS1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	120	20.0	mg/kg	106	ND	114	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.147*		"	*0.160*		*91.7*	*50-150*			
Matrix Spike Dup (1609011-MSD1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	120	20.0	mg/kg	106	ND	114	70-130	0.0832	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.147*		"	*0.160*		*92.0*	*50-150*			

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609012 - DRO Extraction EPA 3550M										
Blank (1609012-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*47.0*		"	*50.0*		*93.9*	*50-200*			
LCS (1609012-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	440	25.0	mg/kg	500		88.1	38-132			
Surrogate: n-Nonane	*47.2*		"	*50.0*		*94.3*	*50-200*			
Matrix Spike (1609012-MS1)	**Source: P602024-02**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500	ND	94.2	38-132			
Surrogate: n-Nonane	*44.3*		"	*50.0*		*88.6*	*50-200*			
Matrix Spike Dup (1609012-MSD1)	**Source: P602024-02**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500	ND	95.7	38-132	1.61	20	
Surrogate: n-Nonane	*48.6*		"	*50.0*		*97.2*	*50-200*			

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609017 - 418 Freon Extraction										
Blank (1609017-BLK1)				Prepared & Analyzed: 25-Feb-16						
Total Petroleum Hydrocarbons	ND	40.0	mg/kg							
LCS (1609017-BS1)				Prepared & Analyzed: 25-Feb-16						
Total Petroleum Hydrocarbons	970	40.0	mg/kg	1000		97.0	80-120			
Matrix Spike (1609017-MS1)		**Source: P602029-01**		Prepared & Analyzed: 25-Feb-16						
Total Petroleum Hydrocarbons	966	40.0	mg/kg	1000	ND	96.6	70-130			
Matrix Spike Dup (1609017-MSD1)		**Source: P602029-01**		Prepared & Analyzed: 25-Feb-16						
Total Petroleum Hydrocarbons	978	40.0	mg/kg	1000	ND	97.8	70-130	1.23	30	

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609013 - Anion Extraction EPA 300.0										
Blank (1609013-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	ND	20.0	mg/kg							
LCS (1609013-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	504	20.0	mg/kg	500		101	90-110			
Matrix Spike (1609013-MS1)	**Source: P602024-03**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	500	20.0	mg/kg	500	ND	100	80-120			
Matrix Spike Dup (1609013-MSD1)	**Source: P602024-03**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	500	20.0	mg/kg	500	ND	100	80-120	0.0740	20	

envirotech
Analytical Laboratory

Logos Resources	Project Name:	Logos Jic 9P	
4001 N. Butler Ave BLDG 7101	Project Number:	13066-0001	**Reported:**
Farmington NM, 87401	Project Manager:	Wayne Ritter	29-Feb-16 13:36

Notes and Definitions

H2	Sample was analyzed after regulatory hold-time exceeded for target analyte.
CON03	Improper container.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: Logos Resources

Project: Logos Jic 9 P

Sampler: WAYNE RETTER

Phone: 505-320-0436

Email(s): writter@logosresourcesllc.com

Project Manager:

RUSH? ☐ 1d ☐ 3d

Lab Use Only
Lab WO# P 602025
Job Number 13066-0001

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0					lab Only: Lab Number	lab Only: Correct Cont/Prsrv (s) Y/N
Backfill material	2-10.				X	X	X	X					1	Y
Top soil material	2-16				X	X	X	X					2	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2-22-16	1:40	[signature]	2/22/16	1:50
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
**Received on Ice Y / N (Frozen Soil)
T1____ T2____ T3____
AVG Temp °C____

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**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.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:
Samples in Ziploc baggies TKT

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Drill Pit

Analytical Report

Report Summary

Client: Logos Operating, LLC
Chain Of Custody Number:
Samples Received: 5/20/2016 1:26:00PM
Job Number: 12035-0071
Work Order: P605078
Project Name/Location: Logos Jicarilla #9P

Report Reviewed By: Walter Hinchman Date: 6/21/16

Walter Hinchman, Laboratory Director

TC

Date: 6/21/16

Tim Cain, Quality Assurance Officer

Supplement to analytical report generated on: 5/24/16 3:32 pm

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fx (800) 362-1879
envirotech-inc.com
laboratory.envirotech-inc.com

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Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Drill Pit / 5 pt Comp	P605078-01A	Soil	05/20/16	05/20/16	Glass Jar, 4 oz.

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Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Drill Pit / 5 pt Comp

P605078-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*104 %*		*50-150*	*1621019*	*05/20/16*	*05/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1621019	05/20/16	05/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	90.4	25.0	mg/kg	1	1621018	05/20/16	05/23/16	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.9 %*		*50-150*	*1621019*	*05/20/16*	*05/23/16*	*EPA 8015D*	
Surrogate: n-Nonane		*75.0 %*		*50-200*	*1621018*	*05/20/16*	*05/23/16*	*EPA 8015D*	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	164	40.0	mg/kg	1	1622003	05/23/16	05/23/16	EPA 418.1	
Cation/Anion Analysis									
Chloride	130	20.0	mg/kg	1	1622001	05/23/16	05/23/16	EPA 300.0	

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Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

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
Batch 1621019 - Purge and Trap EPA 5030A										
Blank (1621019-BLK1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*0.160*		"	*0.160*		*100*	*50-150*			
LCS (1621019-BS1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Benzene	11.1	0.10	mg/kg	10.0		111	70-130			
Toluene	11.0	0.10	"	10.0		110	70-130			
Ethylbenzene	11.1	0.10	"	10.0		111	70-130			
p,m-Xylene	22.1	0.20	"	20.0		110	70-130			
o-Xylene	10.8	0.10	"	10.0		108	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*0.162*		"	*0.160*		*102*	*50-150*			
Matrix Spike (1621019-MS1)		**Source: P605078-01**		Prepared: 20-May-16 Analyzed: 23-May-16						
Benzene	11.7	0.10	mg/kg	10.0	ND	117	54.3-133			
Toluene	11.7	0.10	"	10.0	ND	117	61.4-130			
Ethylbenzene	11.6	0.10	"	10.0	ND	116	61.4-133			
p,m-Xylene	23.2	0.20	"	20.0	ND	116	63.3-131			
o-Xylene	11.3	0.10	"	10.0	ND	113	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*0.166*		"	*0.160*		*104*	*50-150*			
Matrix Spike Dup (1621019-MSD1)		**Source: P605078-01**		Prepared: 20-May-16 Analyzed: 23-May-16						
Benzene	11.2	0.10	mg/kg	10.0	ND	112	54.3-133	4.03	20	
Toluene	11.3	0.10	"	10.0	ND	113	61.4-130	3.85	20	
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133	3.68	20	
p,m-Xylene	22.4	0.20	"	20.0	ND	112	63.3-131	3.70	20	
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131	3.65	20	
Surrogate: 4-Bromochlorobenzene-PID	*0.165*		"	*0.160*		*103*	*50-150*			

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Analytical Laboratory

Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1621018 - DRO Extraction EPA 3550M										
Blank (1621018-BLK1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*37.3*		"	*50.0*		*74.7*	*50-200*			
LCS (1621018-BS1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Diesel Range Organics (C10-C28)	322	25.0	mg/kg	500		64.5	38-132			
Surrogate: n-Nonane	*36.0*		"	*50.0*		*72.0*	*50-200*			
Matrix Spike (1621018-MS1)	**Source: P605053-02**			Prepared: 20-May-16 Analyzed: 23-May-16						
Diesel Range Organics (C10-C28)	1390	25.0	mg/kg	500	1130	52.2	38-132			
Surrogate: n-Nonane	*35.6*		"	*50.0*		*71.2*	*50-200*			
Matrix Spike Dup (1621018-MSD1)	**Source: P605053-02**			Prepared: 20-May-16 Analyzed: 23-May-16						
Diesel Range Organics (C10-C28)	1370	25.0	mg/kg	500	1130	47.3	38-132	1.76	20	
Surrogate: n-Nonane	*37.3*		"	*50.0*		*74.7*	*50-200*			

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Analytical Laboratory

Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1621019 - Purge and Trap EPA 5030A										
Blank (1621019-BLK1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.156*		"	*0.160*		*97.7*	*50-150*			
LCS (1621019-BS1)				Prepared: 20-May-16 Analyzed: 23-May-16						
Gasoline Range Organics (C6-C10)	130	20.0	mg/kg	122		107	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.163*		"	*0.160*		*102*	*50-150*			
Matrix Spike (1621019-MS1)		**Source: P605078-01**		Prepared: 20-May-16 Analyzed: 23-May-16						
Gasoline Range Organics (C6-C10)	134	20.0	mg/kg	122	ND	110	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.154*		"	*0.160*		*96.2*	*50-150*			
Matrix Spike Dup (1621019-MSD1)		**Source: P605078-01**		Prepared: 20-May-16 Analyzed: 23-May-16						
Gasoline Range Organics (C6-C10)	132	20.0	mg/kg	122	ND	108	70-130	1.36	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.158*		"	*0.160*		*98.5*	*50-150*			

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Analytical Laboratory

Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1622003 - 418 Freon Extraction										
Blank (1622003-BLK1)				Prepared & Analyzed: 23-May-16						
Total Petroleum Hydrocarbons	ND	40.0	mg/kg							
LCS (1622003-BS1)				Prepared & Analyzed: 23-May-16						
Total Petroleum Hydrocarbons	846	40.0	mg/kg	1000		84.6	80-120			
Matrix Spike (1622003-MS1)	Source: P605078-01			Prepared & Analyzed: 23-May-16						
Total Petroleum Hydrocarbons	1120	40.0	mg/kg	1000	164	95.8	70-130			
Matrix Spike Dup (1622003-MSD1)	Source: P605078-01			Prepared & Analyzed: 23-May-16						
Total Petroleum Hydrocarbons	1070	40.0	mg/kg	1000	164	90.4	70-130	4.93	30	

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Analytical Laboratory

Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1622001 - Anion Extraction EPA 300.0										
Blank (1622001-BLK1)				Prepared & Analyzed: 23-May-16						
Chloride	ND	20.0	mg/kg							
LCS (1622001-BS1)				Prepared & Analyzed: 23-May-16						
Chloride	513	20.0	mg/kg	500		103	90-110			
Matrix Spike (1622001-MS1)	Source: P605078-01			Prepared & Analyzed: 23-May-16						
Chloride	676	20.0	mg/kg	500	130	109	80-120			
Matrix Spike Dup (1622001-MSD1)	Source: P605078-01			Prepared & Analyzed: 23-May-16						
Chloride	695	20.0	mg/kg	500	130	113	80-120	2.69	20	

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Analytical Laboratory

Logos Operating, LLC	Project Name:	Logos Jicarilla #9P	
PO Box 18	Project Number:	12035-0071	Reported:
Flora Vista NM, 87415	Project Manager:	Felipe Aragon	21-Jun-16 14:55

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: Logos OPerating	RUSH?	Lab Use Only
Project: Logos Jicarilla	[X] 1d	Lab WO# P605078
Sampler: F Aragon	[ ] 3d	Job Number
Phone:		12035 0071
Email(s): F Aragon		
Project Manager: F Arag	Page	1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	TCLP Metals	CO Table 910-1	TDS			Lab Number	Correct Cont/Prsrv (s) Y/N
Drill pit 15 pt Comp	5-20-16	1414	S	1-4oz	X	X	X	X						1	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
[signature]	5-20-16	1326	[signature]	5/20/16	1326	**Received on Ice (Y) / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1____ T2____ T3____
[signature]						AVG Temp °C 4.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass

**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.

[ ] Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

Submit To Appropriate District Office
Two Copies
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
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-105
Revised August 1, 2011

1. WELL API NO.
30-039-31338

2. Type of Lease
☐ STATE ☐ FEE ☒ FED/INDIAN

3. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☒ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

5. Lease Name or Unit Agreement Name
LOGOS JICARILLA

6. Well Number:
9P

7. Type of Completion:
☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator
LOGOS OPERATING, LLC

9. OGRID
289408

10. Address of Operator
4001 North Butler Avenue, Building 7101, Farmington, NM 87401

11. Pool name or Wildcat

12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
		12/02/2015		

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run

22. Producing Interval(s), of this completion - Top, Bottom, Name

23. **CASING RECORD** (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28. **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod. or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - *(Corr.)*

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

30. Test Witnessed By

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit. SEE ATTACHED

33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude **36.40996N** Longitude **107.359671W** NAD 1983

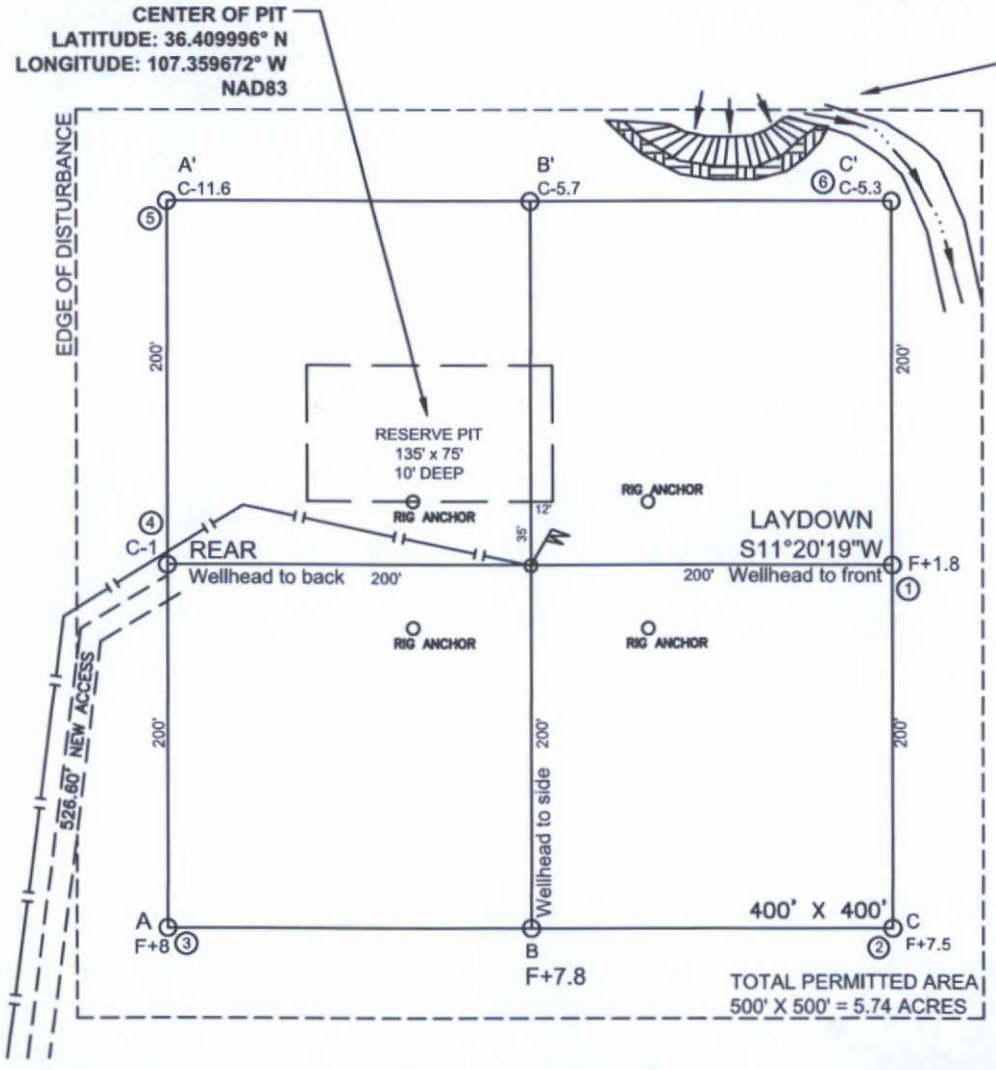
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Tamra Sessions Printed Name Tamra Sessions Title Regulatory Specialist Date 6-29-16

E-mail Address tsessions@logosresourcesllc.com

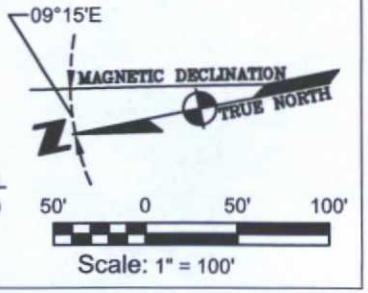
LOGOS OPERATING, LLC

LOGOS JICARILLA #9P, 901' FSL & 1063' FEL
SECTION 9, T-25-N, R-5-W, NMPM, RIO ARRIBA COUNTY, NM
GROUND ELEVATION: 6755', DATE: JUNE 29, 2015



LATITUDE: 36°24.5925' N
LONGITUDE: 107°21.5608' W
NAD27

LATITUDE: 36.409887° N
LONGITUDE: 107.359949° W
NAD83



NOTES:

1. VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
2. RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).

LOGOS RESOURCES LLC

Pit Closure Form:

Date: 5-25-16

Well Name: LOGOS JICARILLA 9P

Footages: 901' FSL & 1063' Unit Letter: P

Section: 9, T-25N, R-05W, County: RIO ARRIBA State: NM

Contractor Closing Pit: ACE

Construction Inspector: Wayne Ba

Inspector Signature: Wayne Ba

Date: 6-24-16

LOGOS RESOURCES LLC

Reclamation Form:

Date: 5-17-16

Well Name: LOGOS JICARILLA 9P

Footages: 901' FSL & 1063' FEL Unit Letter: P

Section: 9, T-25N, R-05W, County: RIO ARRIBA State: NM

Reclamation Contractor: ACE

Reclamation Start Date: 5-17-16

Reclamation Complete Date: 5-27-16

Road Completion Date: 12-16-15

Seeding Date: 6-3-16

PIT MARKER STATUS

(When Required) Picture of Marker set needed

Date Marker Placed: 6-23-16

Latitude: 36.40996N NAD83

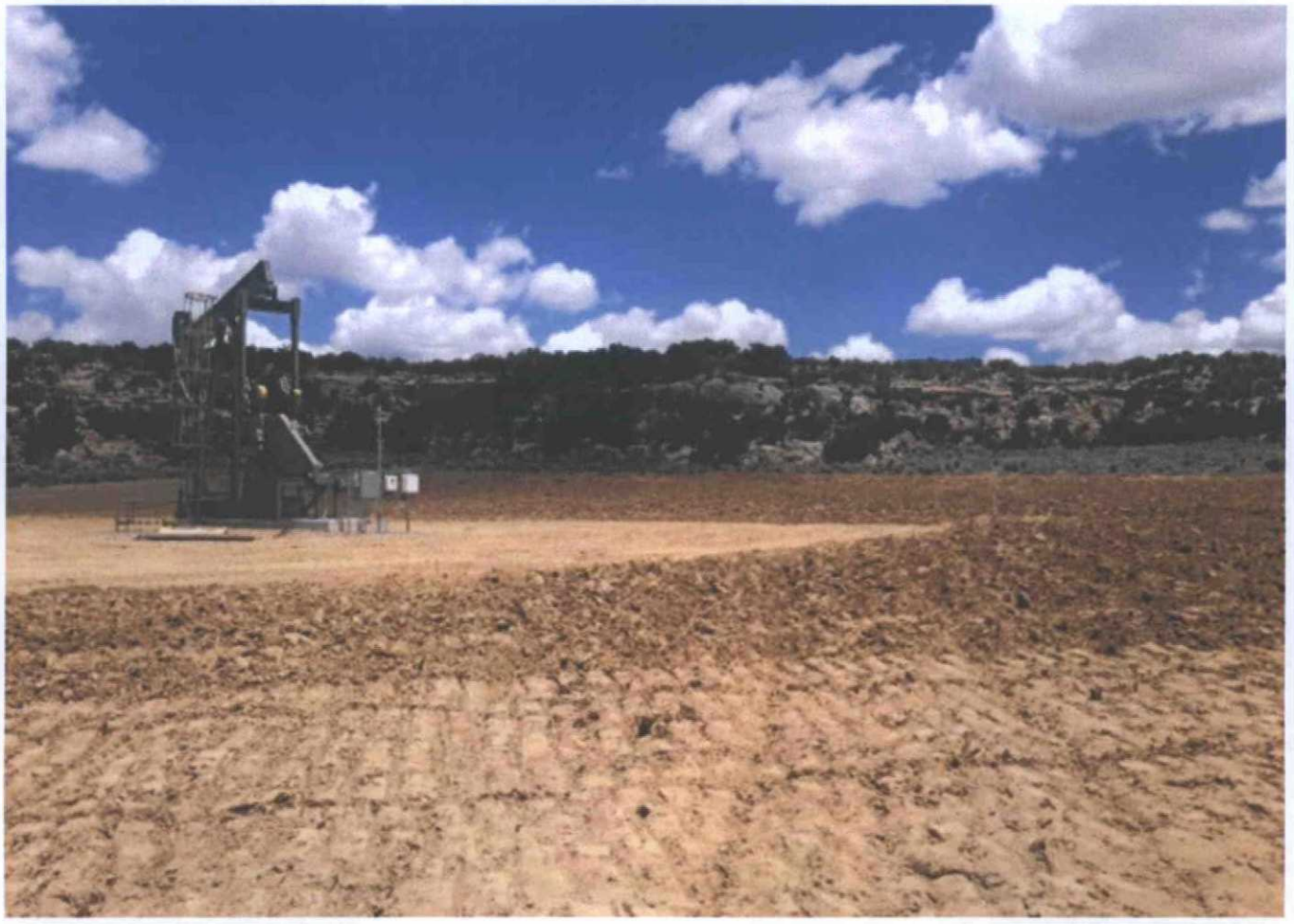
Longitude: 107.35967W NAD83

Construction Inspector Signature:

Date Inspected: 6-24-16


LOGOS OPERATING, LLC.
LOGOS JICARILLA #9P
JICARILLA LEASE NO. 146
API #30-039-31338
901' FSL 1063' FEL
P-SEC. 9-T25N-R5W
RIO ARRIBA COUNTY, NM
OFFICE # 505-436-3790
AFTER HRS #866-598-6220


LOGOS OPER.
LOGOS JICARILLA 9P
P SEC 9 T25N R5W
OBL



Temporary Pit Summary Inspection Form

WELL NAME:	*LOGOS JICARILLA 9P*			**API NO:**	*30-039-31338*	
LEGALS:	**Section:**	*9*	**Township:**	*25N*	**Range:**	*5W*
Drilling RD Date:	**12/2/2015**					

Inspector's Name	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	Ritter
WEEK #	1	2	3	4	5	6	7	8	9	10	11	12
DATE	12/09/15	12/16/15	12/28/15	01/05/16	01/12/16	01/21/16	01/26/16	02/04/16	02/10/16	02/18/16	02/24/16	02/29/16
Well sign on location (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Any liner breeches (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N
Any fluid seeps/spills (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N
HC's on top of temp. pit (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N
Temp pit free of misc. Solid Waste/Debris(Y/N)	Y	Y	Y	N	N	N	N	N	N	N	N	N
Discharge Line Integrity Good (Y/N)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fence Integrity Good (Y/N)	YY	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Any Dead Wildlife/ Stock (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N
Freeboard to be 2' or > Est. (ft)	7'	8'	8'	8'	8'	8' Froze	8' Froze	8' Froze	8' / 6-8" ice on top	8'	10'	11' +
Protection from run on/run off (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Was the OCD contacted (Y/N)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pictures taken (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Comments:	Liner material from rig pit	Liner material from rig pit	Liner material from rig pit	Liner in good shape, no fluid hauled off. Liner material from rig pit	Liner in good shape, no fluid hauled off. Liner material from rig pit	Liner in good shape. Fluids froze. Liner material from rig pit	Liner in good shape. Fluids froze. Liner material from rig pit	Liner in good shape. Fluids froze. Liner material from rig pit	Liner in good shape. Fluids froze. Liner material from rig pit	Liner in good shape. Ice melting. Liner material from rig pit	Liner good shape. Liner material from rig pit. Hauled 560bbls to TNT	Liner good shape. Liner material from rig pit. Haul water next wk.

Temporary Pit Weekly Inspection Form

WELL NAME:	*LOGOS JICARILLA 9P*		**API NO:**	*30-039-31338*	
LEGALS:	**Section:**	*9*	**Township:** *25N*	**Range:** *5W*	
Drilling RD Date:	**12/2/2015**				

Inspector's Name	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	W Ritter	
WEEK #	13	14	15	16	17	18	19	20	21	22	23	24
DATE	03/07/16	03/14/16	03/28/16	04/04/16	04/11/16	04/20/16	04/26/16	05/03/16	05/09/16	05/19/16	05/23/16	
Well sign on location (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Any liner breeches (Y/N)	N	N	N	N	N	N	N	N	N	N	N	
Any fluid seeps/spills (Y/N)	N	N	N	N	N	N	N	N	N	N	N	
HC's on top of temp. pit (Y/N)	N	N	N	N	N	N	N	N	N	N	N	
Temp pit free of misc. Solid Waste/Debris(Y/N)	N	N	N	N	N	N	N	N	N	Y	Y	
Discharge Line Integrity Good (Y/N)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Fence Integrity Good (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Any Dead Wildlife/ Stock (Y/N)	N	N	N	N	N	N	N	N	N	N	N	
Freeboard to be 2' or > Est. (ft)	11' +	11' +	11' +	11' +	11' +	11' +	11' +	11' +	11' +	mixing	mixing	
Protection from run on/run off (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Was the OCD contacted (Y/N)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Pictures taken (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Comments:	Liner good shape. Liner material from rig pit. Hauled 160bbls to TNT	Liner good shape. Liner material from rig pit. Ttl 720bbls as of 3/1	Liner good shape. Liner material from rig pit.	All surface fluids dried, mud drying good. Liner material from rig pit.	All surface fluids dried, mud drying good. Liner material from rig pit.	Surface of mud has about 1/4 inch of rain water , Continuing to dry.	Little rain water left, cont to dry. Liner good shape.	2-3bbls rain water. Mud cont to dry. Liner good shape.	Very little rain water left , mud continuing to dry. Liner still in good shape.	Start mixing 5/18	Finished mixing materials preparing to haul off excessive material to achieve proper cover depth	420yds excess fill hauled to TNT