

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

12239 Proposed Alternative Method Permit or Closure Plan Application

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/or registration
☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

RCVD SEP 30 '14

OIL CONS. DIV.
DIST. 3

Amended
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 AVENUE, BUILDING 7101 FARMINGTON NM 87401
Facility or well name: LOGOS 8
API Number: 30-043-21156 OCD Permit Number: 11411
U/L or Qtr/Qtr G Section 5 Township 22N Range 5W County: SANDOVAL
Center of Proposed Design: Latitude 36.16917° N Longitude 107.38330° 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: 8,000 bbl Dimensions: L 130 x W 60 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 4' HOG WIRE WITH ONE STRAND OF BARBED WIRE ON TOP.

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 300 feet 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 H₂S, 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No

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: Gonatto Kelly Approval Date: 10/27/2014

Title: Compliance Officer 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: 5/8/14

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)

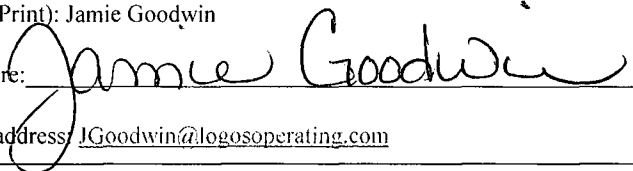
On-site Closure Location: Latitude 36.16917° N Longitude 107.38330° W NAD: ☐ 1927 ☒ 1983

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): Jamie Goodwin

Title: Regulatory Tech.

Signature: Date: 9/30/14e-mail address: JGoodwin@logosoperating.comTelephone: 505-330-9333

**Logos Operating, LLC
San Juan Basin
Closure Report**

**Lease Name: LOGOS 8
API NO: 30-043-21156**

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 Basin Disposal (permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B).

- 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 certified mail. (See attached)

- 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 4/22/14 was requested of the BIA per letter dated 1/13/14 and approved. Pit closure extension to 5/29/14 was requested of the BIA per letter dated 4/11/14 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. Excess fill was hauled from Logos 8 pit to Logos 7 pit: ~260yds & to Logos 601H: ~80yds.

- 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	Tests Method	Limit (mg/Kg)	Results (ppm)
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	40000	

- 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. More than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.

- 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 two 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 8
Unit Letter: G
Section: 5
Township: 22N
Range: 05W
API#: 30-043-21156
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: 10/17/13

Inspection End Date: 5/13/14

NOTE: During start and end dates of temporary pit inspections no issues found.

Tamra Sessions

From: Tamra Sessions
Sent: Monday, July 29, 2013 12:09 PM
To: Merldine Oka (merldineoka@jicarillaoga.com)
Cc: Isaac Julian (iajulian@yahoo.com); Kurt Sandoval (kurt.sandoval@bia.gov)
Subject: SURFACE OWNER NOTIFICATION 07/29/13 - Temporary Pit
Attachments: Jicarilla Pit Noitce.docx

Please see our attached notice for temporary pits on the following new drill locations:

Logos 7

Logos 8

Logos 9

Logos 10

Logos 11

Logos 12

Tamra Sessions
Logos Resources, LLC
Operations Technician
505-330-9333



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 436-2627
Fax: (505) 832-3095

Date: July 29, 2013

To: Jicarilla Apache Nation

Re: Surface Owner Notification for On-Site Burial

Ms. Merldine Oka
Jicarilla Apache Nation
Oil and Gas Administration
#6 Dulce Rock Road
Dulce, NM 87528

Re: Logos #7, Logos #8, Logos #9, Logos #10, Logos #11, and Logos #12

Dear Ms. Oka,

According to NMOCD rules, Logos Operating, LLC is notifying you that there will be temporary pits on the subject wells 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.

Regards,

Tamra Sessions

Tamra Sessions
Operations Technician

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code	*Pool Name WILDCAT DAKOTA
*Property Code 311963	*Property Name LOGOS		*Well Number 8
*OGRID No. 289408	*Operator Name LOGOS RESOURCES, LLC		*Elevation 6888'

¹⁰ Surface Location


UL or lot no. G	Section 5	Township 22N	Range 5W	Lot Idn	Feet from the 1640	North/South line NORTH	Feet from the 2250	East/West line EAST	County SANDOVAL
--------------------	--------------	-----------------	-------------	---------	-----------------------	---------------------------	-----------------------	------------------------	--------------------

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 40 acres SW/4 NE/4	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

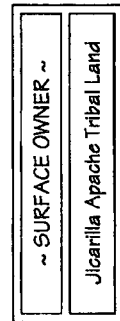
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ 1339.80' LOT 4 1320.00' 2640.00'	5280.00'	1640'	LOT 3	LOT 2	LOT 1 1335.18' 1320.00' 2640.00'	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 working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Kristy Galan</i> Date: 5/21/13 Printed Name: Kristy Galan E-mail Address: kgalan@logosresources.com
						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. Date of Survey: MARCH 14, 2013 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269

LAT: 36.16916°N
LONG: 107.38270°W
DATUM: NAD1927
LAT: 36.16917°N
LONG: 107.38330°W
DATUM: NAD1983

5277.36'

GRAPHIC SCALE 1"=70'
0 70 140



AREA OF WELLPAD = $350' \times 400' = 3.21$ Acres

Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.

Table 1, Summary of Analytical Results
 Logos Operating, LLC
 Logos #8
 Drill Pit Closure and Backfill Material Sampling Report
 Sandoval County, New Mexico
 Project Number 12035-0038

Sample Description	Sample Number	Date	TPH USEPA Method 418.1 (ppm)	TPH USEPA Method 8015 (ppm)	Benzene USEPA Method 8021 (ppm)	BTEX USEPA Method 8021 (ppm)	Chlorides USEPA Method 300.0 (ppm)
NMOCD/RCRA Standards	NA	NA	2500	1000	10	50	40000
Drill Pit Composite	1	1/17/2014	36100	8403	ND	2.12	188
Logos #8	1	3/31/2014	1500	174	NS	NS	NS
NMOCD/RCRA Standards	NA	NA	NA	NA	NA	NA	600
West Backfill Material Composite	1	1/23/2014	NS	NS	NS	NS	ND
East Backfill Material Composite	2	1/23/2014	NS	NS	NS	NS	ND

NS = Not Sampled

ND = Non-Detect at Stated Method's Detection Limit

* Values in **BOLD** above regulatory standards



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Analytical Laboratory

Analytical Report

Report Summary

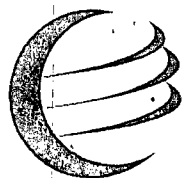
Client: Logos Operating, LLC
Chain Of Custody Number: 16522
Samples Received: 1/17/2014 4:30:00PM
Job Number: 12035-0038
Work Order: P401045
Project Name/Location: Logos #8

Entire Report Reviewed By:

Date: 1/23/14

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



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Analytical Laboratory

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Drill Pit Composite	P401045-01A	Sludge	01/17/14	01/17/14	Glass Jar, 4 oz.

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Ph (970) 259-0615 Fr (800) 362-1879



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

Drill Pit Composite
P401045-01 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Volatile Organics by EPA 8021										
Benzene	ND	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
Toluene	0.05	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
Ethylbenzene	0.10	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
p,m-Xylene	1.88	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
o-Xylene	0.09	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
Total Xylenes	1.97	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
Total BTEX	2.12	0.05	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8021B	
Surrogate: Bromochlorobenzene		118 %		80-120		1404001	01/20/14	01/20/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		113 %		80-120		1404001	01/20/14	01/20/14	EPA 8021B	
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	72.7	4.98	mg/kg	1		1404001	01/20/14	01/20/14	EPA 8015D	
Diesel Range Organics (C10-C28)	8330	29.9	mg/kg	1		1404002	01/20/14	01/20/14	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1										
Total Petroleum Hydrocarbons	36100	200	mg/kg	10		1404003	01/20/14	01/20/14	EPA 418.1	
Cation/Anion Analysis										
Chloride	188	9.95	mg/kg	1		1404016	01/22/14	01/22/14	EPA 300.0	

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

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 1404001 - Purge and Trap EPA 5030A

Blank (1404001-BLK1)

Prepared: 20-Jan-14 Analyzed: 21-Jan-14

Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	45.7		ug/L	50.0		91.5	80-120			
Surrogate: Bromochlorobenzene	46.7		"	50.0		93.5	80-120			

Duplicate (1404001-DUP1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.05	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	46.6		ug/L	50.0		93.3	80-120			
Surrogate: Bromochlorobenzene	47.8		"	50.0		95.6	80-120			

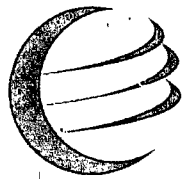
Matrix Spike (1404001-MS1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Benzene	50.3		ug/L	50.0	ND	101	39-150			
Toluene	50.1		"	50.0	ND	100	46-148			
Ethylbenzene	50.3		"	50.0	ND	101	32-160			
p,m-Xylene	100		"	100	ND	100	46-148			
o-Xylene	49.7		"	50.0	ND	99.3	46-148			
Surrogate: 1,3-Dichlorobenzene	50.8		"	50.0		102	80-120			
Surrogate: Bromochlorobenzene	50.1		"	50.0		100	80-120			

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Analytical Laboratory

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

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 1404001 - Purge and Trap EPA 5030A

Blank (1404001-BLK1)

Prepared: 20-Jan-14 Analyzed: 21-Jan-14

Gasoline Range Organics (C6-C10) ND 4.99 mg/kg

Duplicate (1404001-DUP1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Gasoline Range Organics (C6-C10) ND 5.00 mg/kg ND 30

Matrix Spike (1404001-MS1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Gasoline Range Organics (C6-C10) 0.49 mg/L 0.450 0.02 106 75-125

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Ph (970) 259-0615 Fx (800) 362-1879



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

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 1404002 - DRO Extraction EPA 3550C										
Blank (1404002-BLK1)										
					Prepared & Analyzed: 20-Jan-14					
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg							
Duplicate (1404002-DUP1)										
					Source: P401044-01 Prepared & Analyzed: 20-Jan-14					
Diesel Range Organics (C10-C28)	126	29.9	mg/kg		202			46.2	30	D1
Matrix Spike (1404002-MS1)										
					Source: P401044-01 Prepared & Analyzed: 20-Jan-14					
Diesel Range Organics (C10-C28)	370	31.6	mg/kg	263	202	63.7	75-125			SPK1

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

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 1404003 - 418 Freon Extraction

Blank (1404003-BLK1)

Prepared & Analyzed: 20-Jan-14

Total Petroleum Hydrocarbons ND 20.0 mg/kg

Duplicate (1404003-DUP1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Total Petroleum Hydrocarbons 84.0 20.0 mg/kg 99.7 17.1 30

Matrix Spike (1404003-MS1)

Source: P401044-01

Prepared & Analyzed: 20-Jan-14

Total Petroleum Hydrocarbons 627 mg/L 500 25.0 120 80-120

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

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 1404016 - Anion Extraction EPA 300.0										
Blank (1404016-BLK1)				Prepared & Analyzed: 22-Jan-14						
Chloride	ND	9.92	mg/kg							
LCS (1404016-BS1)				Prepared & Analyzed: 22-Jan-14						
Chloride	529	9.97	mg/kg	499		106	90-110			
Matrix Spike (1404016-MS1)				Source: P401058-01 Prepared & Analyzed: 22-Jan-14						
Chloride	503	9.98	mg/kg	499	12.2	98.4	80-120			
Matrix Spike Dup (1404016-MSD1)				Source: P401058-01 Prepared & Analyzed: 22-Jan-14						
Chloride	501	9.89	mg/kg	495	12.2	98.8	80-120	0.506	20	

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
23-Jan-14 09:53

Notes and Definitions

SPK1 The spike recovery for this QC sample is outside of control limits.

D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.

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

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CHAIN OF CUSTODY RECORD

16522

Client: Logos Operating			Project Name / Location: Logos #8			ANALYSIS / PARAMETERS																
Email results to: T. McIntosh			Sampler Name: T. McIntosh			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact		
Client Phone No.: 505-330-9333			Client No.: 12035-0038																			
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
					HNO ₃	HCl	cool															
Drill Pit Composite	1/17/14	1315	P401045-01	1-4oz jar			X	X	X							X	X				X	X
Relinquished by: (Signature) <i>Tiffany McIntosh</i>					Date 1/17/14	Time 1630	Received by: (Signature) <i>[Signature]</i>					Date 1/17/14	Time 1630									
Relinquished by: (Signature) <i>[Signature]</i>							Received by: (Signature) <i>[Signature]</i>															
Sample Matrix Soil <input type="checkbox"/> Solid <input type="checkbox"/> Sludge <input checked="" type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																						
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.													<div style="text-align: center;">  </div>									



Analytical Report

Report Summary

Client: Logos Operating, LLC
Chain Of Custody Number: 16555
Samples Received: 1/23/2014 3:10:00PM
Job Number: 12035-0038
Work Order: P401068
Project Name/Location: Logos #8

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 1/27/14

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
27-Jan-14 08:35

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Backfill Material Composite	P401068-01A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.
East Backfill Material Composite	P401068-02A	Soil	01/23/14	01/23/14	Glass Jar, 4 oz.

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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
27-Jan-14 08:35

West Backfill Material Composite
P401068-01 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

Cation/Anion Analysis

Chloride	ND	9.87	mg/kg	1	1404028	01/24/14	01/24/14	EPA 300.0		
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Logos Operating, LLC
PO Box 18
Flora Vista NM, 87415

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
27-Jan-14 08:35

East Backfill Material Composite
P401068-02 (Solid)

Analyte	Reporting								
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
Chloride	ND	9.99	mg/kg	1	1404028	01/24/14	01/24/14	EPA 300.0	

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Ph (970) 259-0615 Fr (800) 362-1879





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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
27-Jan-14 08:35

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 1404028 - Anion Extraction EPA 300.0										
Blank (1404028-BLK1)				Prepared & Analyzed: 24-Jan-14						
Chloride	ND	9.94	mg/kg							
LCS (1404028-BS1)				Prepared & Analyzed: 24-Jan-14						
Chloride	498	9.97	mg/kg	499		99.9	90-110			
Matrix Spike (1404028-MS1)				Source: P401067-01 Prepared & Analyzed: 24-Jan-14						
Chloride	545	9.95	mg/kg	498	ND	110	80-120			
Matrix Spike Dup (1404028-MSD1)				Source: P401067-01 Prepared & Analyzed: 24-Jan-14						
Chloride	553	9.96	mg/kg	498	ND	111	80-120	1.48	20	

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5796 US Highway 64, Farmington, NM 87401

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Tiffany McIntosh

Reported:
27-Jan-14 08:35

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

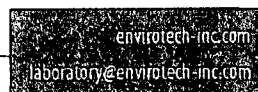
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CHAIN OF CUSTODY RECORD

16555

Client: Logos Operating			Project Name / Location: Logos #8			ANALYSIS / PARAMETERS																
Email results to: T. McIntosh			Sampler Name: T. McIntosh			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact		
Client Phone No.: 505-320-2857			Client No.: 12035-0038																			
Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH	BTEX	VOC	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
					HNO ₃	HCl	Cool															
15T backfill material composite	1/23/14	9:48	P401068-01	1- 4oz jar			X										X				Y	Y
East backfill material composite	1	9:44	P401068-02	1			1										1				Y	Y
Relinquished by: (Signature) <i>Tiffany McIntosh</i>					Date	Time	Received by: (Signature) <i>[Signature]</i>										Date	Time				
Relinquished by: (Signature)					1/23/14	1510	Received by: (Signature)										1/23/14	1510				
Sample Matrix																						
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																						
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.																	 <div style="margin-left: 20px; font-size: 24pt;">11.4°C 11.3</div>					



Analytical Report

Report Summary

Client: Logos Operating, LLC
Chain Of Custody Number: 16795
Samples Received: 3/31/2014 4:06:00PM
Job Number: 12035-0038
Work Order: P404001
Project Name/Location: Logos #8

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 4/4/14

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.





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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Eric Liese

Reported:
04-Apr-14 16:42

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Drill Pit	P404001-01A	Soil	03/31/14	03/31/14	Glass Jar, 4 oz.

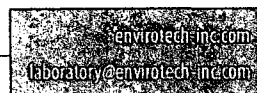
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Ph (970) 259-0615 Fr (800) 362-1879



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Eric Liese

Reported:
04-Apr-14 16:42

Drill Pit
P404001-01 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1		1414025	04/02/14	04/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	173	30.0	mg/kg	1		1414024	04/02/14	04/04/14	EPA 8015D	

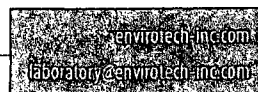
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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879





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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Eric Liese

Reported:
04-Apr-14 16:42

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 1414024 - DRO Extraction EPA 3550C

Blank (1414024-BLK1)

Prepared: 02-Apr-14 Analyzed: 04-Apr-14

Diesel Range Organics (C10-C28) ND 30.0 mg/kg

Duplicate (1414024-DUP1)

Source: P404001-01

Prepared: 02-Apr-14 Analyzed: 04-Apr-14

Diesel Range Organics (C10-C28) 322 29.9 mg/kg 173 60.4 30 DI

Matrix Spike (1414024-MS1)

Source: P404001-01

Prepared: 02-Apr-14 Analyzed: 04-Apr-14

Diesel Range Organics (C10-C28) 683 29.9 mg/kg 49.8 173 NR 75-125 SPK1

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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879





Logos Operating, LLC	Project Name:	Logos #8	Reported: 04-Apr-14 16:42
PO Box 18	Project Number:	12035-0038	
Flora Vista NM, 87415	Project Manager:	Eric Liese	

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 1414025 - Purge and Trap EPA 5030A

Blank (1414025-BLK1)		Prepared: 02-Apr-14 Analyzed: 04-Apr-14								
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1414025-DUP1)		Source: P404001-01		Prepared: 02-Apr-14 Analyzed: 04-Apr-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Matrix Spike (1414025-MS1)		Source: P404001-01		Prepared: 02-Apr-14 Analyzed: 04-Apr-14						
Gasoline Range Organics (C6-C10)	0.63		mg/L	0.450	0.03	132	75-125			SPK1

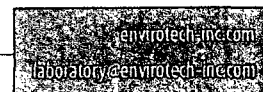
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Ph (970) 259-0615 Fr (800) 362-1879



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

Project Name: Logos #8
Project Number: 12035-0038
Project Manager: Eric Liese

Reported:
04-Apr-14 16:42

Notes and Definitions

SPK1 The spike recovery for this QC sample is outside of control limits.

D1 Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds control limits.

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

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

CHAIN OF CUSTODY RECORD

16795

Client: <u>Logos Operating</u>			Project Name / Location: <u>36-16918</u> <u>Logos #8 = 107.3832.9</u>			ANALYSIS / PARAMETERS														
Email results to: <u>Eric (Environmental)</u>			Sampler Name: <u>Logan Richter</u>			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
Client Phone No.:			Client No.: <u>12035-0038</u>																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative															
					HNO ₃	HCl	Cool													
Logos #8 Drill Pit	3-31-14	11:30	P404001-01	1 4oz			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											1	<input checked="" type="checkbox"/>
Relinquished by: (Signature) <u>[Signature]</u>					Date	Time	Received by: (Signature) <u>[Signature]</u>					Date	Time							
Relinquished by: (Signature)					3/31	16:05	Received by: (Signature)					3/31/14	16:06							
Sample Matrix																				
Soil <input type="checkbox"/> Solid <input type="checkbox"/> Sludge <input checked="" type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																				
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.																				



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. 30-043-21156 2. Type of Lease <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> FED/INDIAN 3. State Oil & Gas Lease No. JICARILLA APACHE LEASE #424								
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: <input type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input checked="" type="checkbox"/> 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 6. Well Number: 8								
7. Type of Completion: <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input type="checkbox"/> 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 10/18/13		16. Date Completed (Ready to Produce)			17. Elevations (DF and RKB, RT, GR, etc.)			
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 36.16917 N Longitude 107.38330 W NAD 1927 1983X										
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		Printed Name Jamie Goodwin			Title Regulatory Tech.			Date		
E-mail Address JGoodwin@logosoperating.com										



Pit Closure Form:

Date: 5/8/14

Well Name: LOGOS 8

Footages: 1640' FNL & 2250' FEL Unit Letter: G

Section: 5, T-22N, R- 5W, County: SANDOVAL State: NM

Contractor Closing Pit: WSS

Construction Inspector: _____

Inspector Signature: Wayne [Signature]

Date: 5-8-14



IN REPLY REFER TO:
Energy & Minerals Management

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



JAN 21 2014

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 **January 13, 2014**, for permission to perform work on the following location, which is on Tribal Surface:

Lease No. 424, Logos #8:

Located in Section 5, Township 22 North, Range 5 West, N.M.P.M. Sandoval County, New Mexico (API No. 30-043-21156).

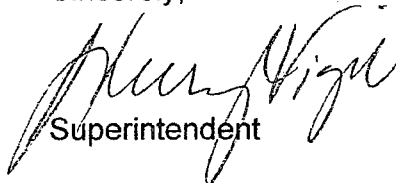
Scope of Work:

Pit closure extension of 90-days (ending on April 22, 2014), due to inclement weather conditions.

The Bureau of Indian Affairs, Jicarilla Agency, hereby grant Logos Resources, LLC and its contractor's permission to perform work of the above indicated location. Please submit an affidavit of completion and/or final report when completed.

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

Sincerely,


Superintendent

cc: Jicarilla Oil and Gas Administration



RECEIVED APR 8 2014

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



IN REPLY REFER TO:
Energy & Minerals Management

APR 8 2014

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 **April 7, 2014**, for permission to perform work on the following location, which is on Tribal Surface:

Lease No. 424, Logos #8:

Located in Section 5, Township 22 North, Range 5 West, N.M.P.M. Sandoval County, New Mexico (API No. 30-043-21156).

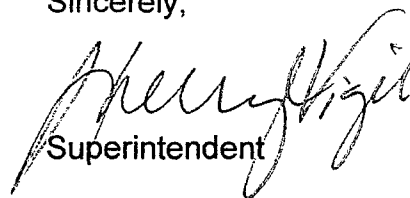
Scope of Work:

Notice of temporary pit closure operations beginning April 10, 2014. Drill cuttings will be buried in reserve pit.

The Bureau of Indian Affairs, Jicarilla Agency, hereby grant Logos Resources, LLC and its contractor's permission to perform work of the above indicated location. Please submit an affidavit of completion and/or final report when completed.

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

Sincerely,


Superintendent

cc: Jicarilla Oil and Gas Administration

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. <input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you. <input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X <i>Kenny Harris</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
1. Article Addressed to: Bureau of Indian Affairs Jicarilla Agency P.O. Box 167 Dulce, NM 87528		B. Received by (Printed Name) <i>Kenny Harris</i> C. Date of Delivery <i>4-8-14</i> D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
2. Article Number (Transfer from service label)		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
		7013 2250 0001 2785 5385	

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

DULCE NM 87528 **OFFICIAL USE**

Postage	\$	\$0.49
Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$6.49

08 APR 2014
Postmark Here
USPS

Sent To *BIA-Jicarilla Agency*
 Street, Apt. No., or PO Box No. *P.O. Box 167*
 City, State, ZIP+4 *Dulce, NM 87528*

PS Form 3800, August 2006 See Reverse for Instructions



IN REPLY REFER TO:
Energy & Minerals Management

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



APR 14 2014

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 **April 11, 2014**, for permission to perform work on the following location, which is on Tribal Surface:

Lease No. 424, Logos #8:

Located in Section 5, Township 22 North, Range 5 West, N.M.P.M. Sandoval County, New Mexico (API No. 30-043-21156).

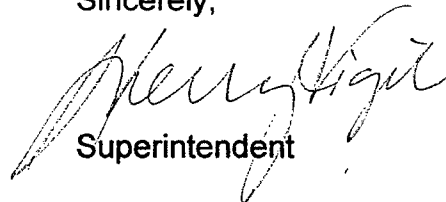
Scope of Work:

Additional (2nd) 30-day extension of pit closure operations, ending on May 29, 2014, due to inclement weather conditions.

The Bureau of Indian Affairs, Jicarilla Agency, hereby grant Logos Resources, LLC and its contractor's permission to perform work of the above indicated location. Please submit an affidavit of completion and/or final report when completed.

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

Sincerely,


Superintendent

cc: Jicarilla Oil and Gas Administration



Reclamation Form:

Date: 8/28/14

Well Name: LOGOS 8

Footages: 1640' FNL & 2250' FEL Unit Letter: G

Section: 5, T-22N, R-5W, County: SANDOVAL State: NM

Reclamation Contractor: ACE

Reclamation Start Date: 5/9/14

Reclamation Complete Date: 5/28/14

Road Completion Date: 5/28/14

Seeding Date: 8/28/14

PIT MARKER STATUS

(When Required) Picture of Marker set needed

Date Marker Placed: 8/25/14

Latitude: 36.16917N

Longitude: 107.38330

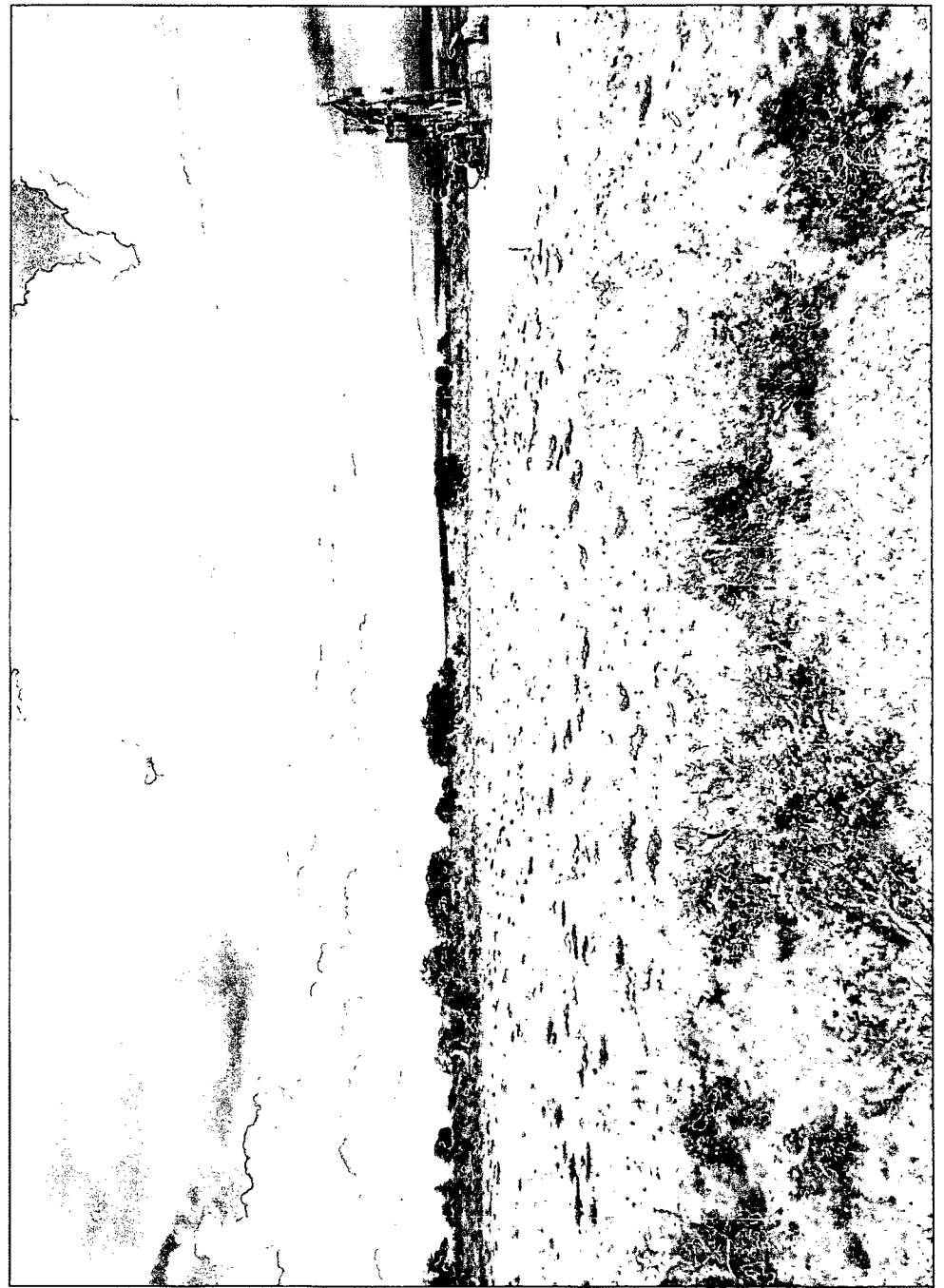
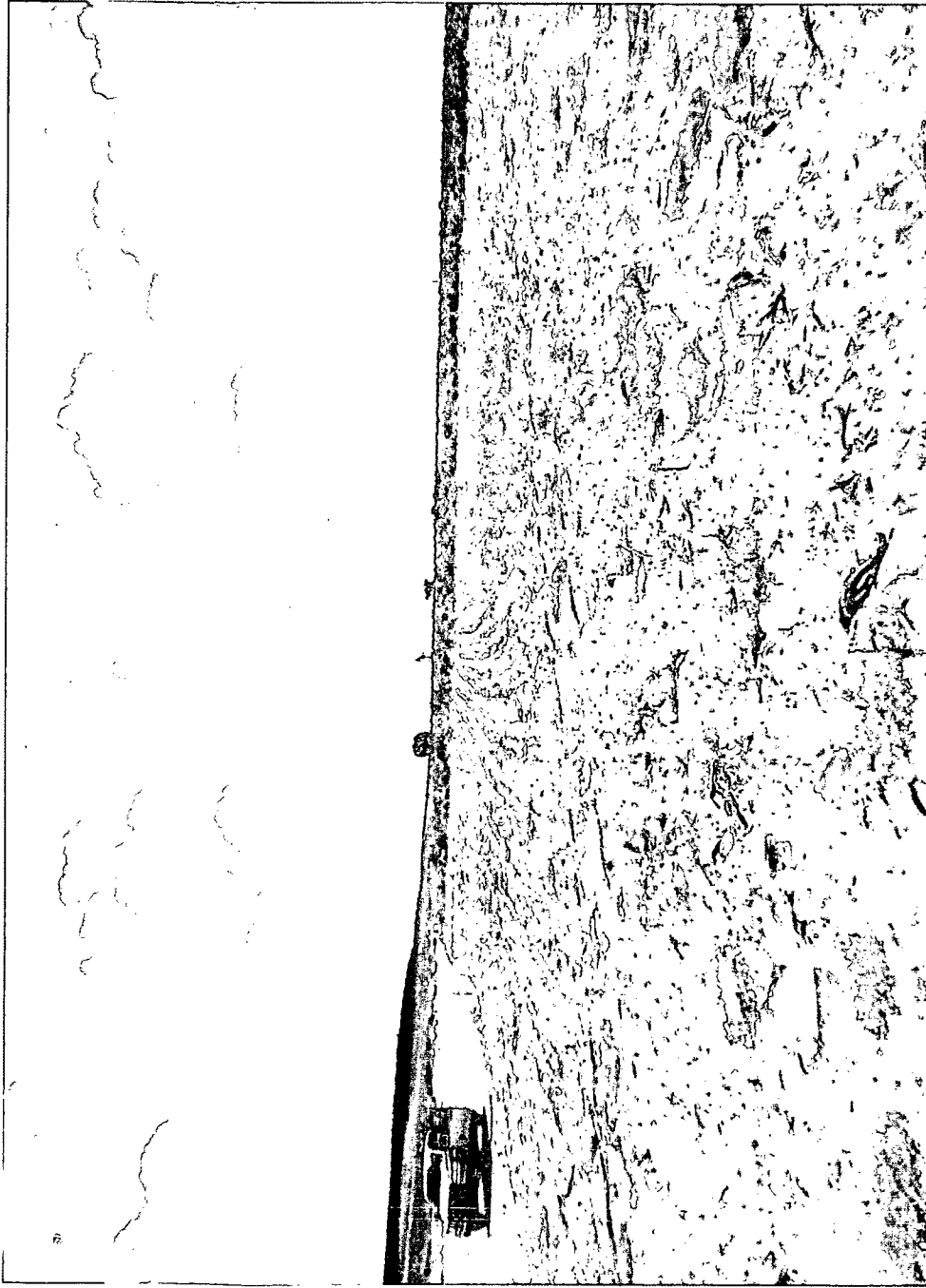
Date Pit Manifold Removed: N/A

Construction Inspector Signature: Wage

Date Inspected: 8-28-14

LOGOS OPERATING, LLC.
LOGOS #8-JIC. LEASE #424
API #30-043-21156
1640' FNL 2250' FEL
G-SEC. 5-T22N-R5W
SANDOVAL COUNTY, NM
OFFICE # 505-436-2627
AFTER HRS #866-598-6220

LOGOS-OPER
LOGOS #8
G, SEC. 5, T22N
R5W, QBL



Temporary Pit Weekly Inspection Form

WELL NAME:	LOGOS 8		API NO:	30-043-21156	
LEGALS:	Section:	5	Township:	22N	Range: 5W
Drilling RD Date:	10/18/2013				

Inspector's Name	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie
WEEK #	1	2	3	4	5	6	7	8	9	10	11	12
DATE	10/28/13	11/04/13	11/11/13	11/18/13	11/27/13	12/02/13	12/09/13	12/16/13	12/23/13	12/30/13	01/06/14	01/07/14
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	Y	Y	Y	Y	Y	Y	Y	Y	Y
Discharge Line Integrity Good (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Fence Integrity Good (Y/N)	Y	Y	Y	N	N	Y	N	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)	N	N	Y	Y (5')	Y (8')	Y (8')	Y (5')	Y (6')	Y (6')	Y (6')	Y (9')	Y (11')
Was the OCD contacted (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N
Pictures taken (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Comments:	Back flush fuilid from wellhead in the pit	Back flush fuilid & mud from wellhead in pit	West side pit by blwon down tank need clearing/stain dirt from blow down	Crew moving red blow down tank and pull out T post/needs fixing/5' clearance	8' Clearance/we stside needs repulled & T-- post straightened	8' Clearance/So utwest side needs to be fixed	5' Clearance/Ne ed fixed on the Southwest side, pul out when moving frac tank	6' Clearance/Fe nce needs to be repulled on the southwest corner	6' Clearance	6' Clearance	9' Clearance	11' Clearance

Temporary Pit Weekly Inspection Form

WELL NAME: LOGOS 8 API NO: 30-043-21156
 LEGALS: Section: 5 Township: 22N Range: 5W
 Drilling RD Date: 10/18/2013

Inspector's Name	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie	Ramsey Hatalie		
WEEK #	13	14	15	16	17	18	19	20	21	22	23	24
DATE	01/14/14	01/25/14	02/15/14	03/03/14	03/24/14	04/05/14	04/12/14	04/22/14	04/28/14	05/13/14		
Well sign on location (Y/N)	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		
Any fluid seeps/spills (Y/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		
Temp pit free of misc. Solid												
Waste/Debris(Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	N		
Discharge Line												
Integrity Good (Y/N)	Y	Y	N	N	N	N	N	N	N	N		
Fence Integrity Good (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	N		
Any Dead Wildlife/ Stock (Y/N)	N	N	N	N	N	N	N	N	N	N		
Freeboard to be 2' or > Est. (ft)	Y (9')	Y (9')	Y (10')	Y (10')	Y (11')	Y (12')	Y (9')	Y	Y	N		
Was the OCD contacted (Y/N)	N	N	N	N	N	N	N	N	N	N		
Pictures taken (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
Comments:	9' Clearance	9' Clearance	10' Clearance	10' Clearance	11' Clearance	12' Clearance	9' Clearance/Crew dumped some mud from another location	Crew in process of backfilling earth pit	Crew working on back filling pit about 75% done	Completion, crew finished back fill on the earth pit		



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 436-2627
Fax: (505) 832-3095

Date: September 30, 2014

To: NMOCD

Re: Pit Closure Filings for WPX

Dear NMOCD,

Logos Operating, LLC (289408) is filing this pit closure report on behalf of the new operator, WPX Energy Production, LLC (120782), as part of a transition service agreement between Logos and WPX.

Regards,


Jamie Goodwin
Regulatory Technician



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 436-2627
Fax: (505) 832-3095

Date: October 21, 2014

To: NMOCD

Re: Closure Permit #12239
Logos 8
API 30-043-21156

OIL CONS. DIV DIST. 3

OCT 22 2014

Dear NMOCD,

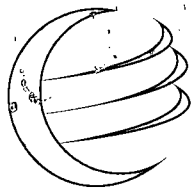
Logos Operating, LLC (289408) has reviewed their information regarding your email request dated 10/20/14 for general issues encountered on our submitted closure report.

- No copy of Final 418.1 sample results included with permit.
 - Please find attached the Final 418.1 sample results.
 - Please find attached 418.1 sample dated 3/31/14 TPH 1500

Regards,

A handwritten signature in black ink that reads 'Jamie Goodwin'. The signature is written in a cursive, flowing style.

Jamie Goodwin
Regulatory Technician



envirotech

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Logos Operating, LLC	Project #:	12035-0038
Sample No.:	1	Date Reported:	5/12/2014
Sample ID:	Logos #8	Date Sampled:	3/31/2014
Sample Matrix:	Soil	Date Analyzed:	3/31/2014
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,500	5.0

ND = Parameter not detected at the stated detection limit.

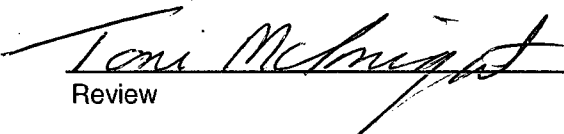
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Logos #8**

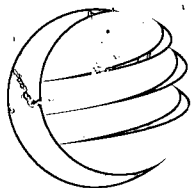
Instrument calibrated to 200 ppm standard and zeroed before each sample.


Analyst

Sheena Leon
Printed


Review

Toni McKnight, EIT
Printed



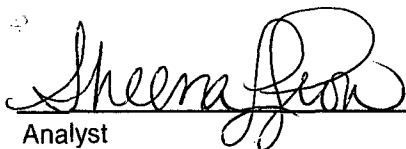
envirotech

CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 31-Mar-14

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	204
	200	
	500	
	1000	

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

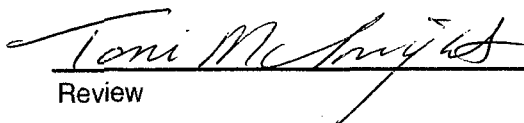

Analyst

Sheena Leon

Print Name

5/12/2014

Date


Review

Toni McKnight, EIT

Print Name

5/12/2014

Date