

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 NMOC District Office.  
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOC District Office.

Pit, Below-Grade Tank, or  
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

**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: **WHITING OIL & GAS CORPORATION OGRID #: 25078**  
Address: **400 W ILLINOIS STE 1300 MIDLAND, TEXAS 79701**  
Facility or well name: **WHITE COOK 1828 05 WELL # 1**  
API Number: **30-021-20680** OCD Permit Number: 195211  
U/L or Qtr/Qtr **G** Section **05** Township **18N** Range **28E** County: **HARDING COUNTY**  
Center of Proposed Design: Latitude **35.8187974** Longitude **-103.9863111** 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 \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

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 \_\_\_\_\_

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<sub>2</sub>S, 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.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><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).<br>- 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.<br>- 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.<br>- 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.<br>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: [Signature] Approval Date: 6/18/15

Title: Engineer 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: 06/02/2015

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 35.8187974 Longitude -103.9863111

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): KAY MADDOX Title: REGULATORY SUPERVISOR

Signature: \_\_\_\_\_



Date: 06/11/2015

e-mail address: KAY.MADDOX@WHITING.COM Telephone: 432.686.6709

**WHITING OIL AND GAS CORPORATION  
PIT CLOSURE REPORT**

WHITE-COOK 1828 05 Well #1  
API NO 30-021-20680

- 1) The pit will be closed within six (6) months from the date that the drilling or workover rig is released. If necessary, the division district office may grant an extension not to exceed three (3) months.

**The Drlg rig was released 01/24/2015 after drilling this well**

- 2) Surface Owners will be notified by Certified mail at least 72 hours but not more than one week prior to closure of the Temporary pit. The notice shall include well name, API number and location.

**Reference attached notification**

- 3) The Appropriate Division District Office (OCD) will be notified verbally and in writing at least 72 hours but not more than one week prior to closure of the Temporary pit. The notice shall include well name, API number and location.

**NMOCD was notified via email – reference attached copy of email**

- 4) If on site burial is on PRIVATE LAND, Whiting will file a deed notice identifying the exact location of the onsite burial with the county clerk in county where onsite burial occurs

**Certified Recorded Deed Notice attached**

- 5) All liquids from the pit will be removed prior to closure. Liquids will be disposed of at the Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003), unless they are recycled, reused, or reclaimed in a division district office-approved manner.

**Liquids from pit evaporated, no removal was required.**

- 6) The pit will be stabilized with clean non-waste containing earthen material with a ratio no more than 3:1

**Pit was stabilized 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 safe and stable. The mixing ratio consisted of approximately 3 parts clean soil to 1 part pit contents.**

- 7) After stabilization, the contents of the pit will be tested to determine whether concentrations are below standards. A five-point composite sample will be collected. The samples will be sent to an approved laboratory and analyzed for benzene, total BTEX, TPH, the GRO and DRO combined fraction, and chlorides. Assuming water could be encountered around 100', the following should not be exceeded:

- Chlorides (ads determined by EPA method 300.1): 40,000 mg/kg or background concentration, whichever is greater
- TPH (EPA SW-846 method 418.a or other division-approved EPA method): 2500 mg/kg.
- GRO and DRO combined fraction (EPA SW-846 method 8015M): 1000 mg/kg.
- BTEX (EPA SW-846 method 8021B or 8260B or other approved EPA method): 50 mg/kg
  - Benzene (EPA SW-846 method 8021B or 8260B or other approved EPA method): 10 mg/kg

**A five point composite sample was taken of the pit using sample tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b) results attached.**

- 8) If the contents are above the concentration limits after stabilization Whiting will comply with 19.15.17.13.C (Waste Excavation and Removal)

**Not necessary**

- 9) If it is determined that contents of the pit doesn't exceed the above-specified concentrations, the pit will be covered with compacted, non-waste-containing, earthen material. A division-prescribed soil cover will be constructed and the site will be re-contoured and re-vegetated, per Subsections D, E, F, G, H, of 19.15.17.13 NMAC

**The pit material passed solidification and testing standards. The pit area was then back filled with compacted, non-waste containing earthen material.**

- 10) All areas associated with the pit that are no longer being used will be substantially restored to the condition that existed prior to oil and gas operations by placement of the soil cover re-contouring to match original contours and surrounding topography, and re-vegetating.

**This was done – please see attached pictures**

- 11) If an alternative to the re-vegetation requirements is required to prevent erosion, protect fresh water, or protect human health and the environment, this alternative will be proposed to the surface owner. The proposed alternative, with written documentation demonstrating that the surface owner approves the alternative, will be submitted to the division for approval.

**No alternative is required**

- 12) Soil cover will consist of 4' of non-waste containing earthen material with chloride concentrations less than 600mg/KG including 1' of topsoil

**Four feet of non-waste earthen cover was achieved including one foot of suitable material to establish vegetation.**

- 13) All contents, including synthetic pit liners, will be buried in place. By folding outer edges of the pit liner to overlap waste material, and then installing a geomembrane liner cover that is 20 mil string reinforced LLDPE, synthetic material, impervious, resistant to ultra violet light, petroleum hydrocarbons, salts, acid and alkaline.

**These was done including placing a 20 mil LLDPE liner cover**

- 14) Soil cover will be constructed to the site's existing grade and will prevent ponding of water and erosion of the cover material.

**This was done – reference attached photos**

- 15) The first favorable growing season following pit closure, all disturbed areas associated with the pit and no longer being used will be seeded or planted.

**This area will be re-seeded during the next growing season in this area  
– reference attached letter**

- 16) Seeding will be accomplished by drilling on the contour whenever practical, or by other division-approved methods. Vegetative cover will be considered complete when there is a life form ratio of +/- 50% of pre-disturbance levels with at least 70% total plant cover of pre-disturbance level (Excluding Noxious Weeds) OR in accordance to 19.15.17.13.H.5.d

**This will be done during the next growing season in this area**

- 17) Seeding or planting will be repeated until the required vegetative cover is successfully achieved.

**Whiting will comply**



- 18) When conditions aren't favorable for the establishment of vegetation (such as during periods of drought), the division will be contacted for approval to delay seeding or planting, or for approval to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing, etc.

**Attached letter**

- 19) The division will be notified when seeding or planting is completed, and when successful re-vegetation has been achieved.

**Whiting will comply**

- 20) Place a steel marker at the center of the onsite burial. The marker shall be 4" diameter, at least 4' high and cemented 3' deep. The following will be welded, stamped or otherwise permanently engraved into the marker; operator name, lease name, well number and location, unit letter, section, township, range, and that the marker designates an onsite burial

**Reference attached pictures**

- 21) Within 60 days of closure, completion, a closure report will be submitted on form C-144, with necessary attachments, to document closure activities, including sampling results, a plot plan, and backfilling details. In this closure report, Whiting will certify that all information in the report and attachments is correct and that Whiting has complied with all applicable closure requirements and conditions specified in the approved Closure Plan. A plat of the temporary pit location will be provided on form C-105.



May 27, 2015

Glenna Lou Rierson & Nelda Ann Burson  
1123 South Fourth St  
Tucumcari, NM 88401

RE: Notification to Surface Owner of On-Site Drilling Pit Closure Plan  
Wells: WHITE-COOK 1828 05 Well # 1 API NO 30-021-20680  
T18N, R28E, Section 5, Unit Ltr G 2300' FNL & 1700' FEL  
Harding County, NM

Whiting Oil & Gas proposes to close the temporary drilling pit and remediate the surface land according to all rules and regulations noted in Subsection E of 19.15.17.13 NMAC on June 2, 2015.

If you have any additional question please contact Kay Maddox @ 432.686.6709.

Sincerely,

Kay Maddox  
Regulatory Supervisor

Mailed by certified mail to above listed party on this the 27th day of May, 2015

Signed: Kay Maddox- Regulatory Supervisor

7011-3500-0002-4991-1915  
Certified Mail Number

*Whiting Petroleum Corporation  
and its wholly owned subsidiary  
Whiting Oil and Gas Corporation*

400 W. Illinois Avenue, Suite 1300, Midland, TX 79701 Office: 432.686.6700 Fax 432.686.6799

## Kay Maddox

---

**From:** Kay Maddox  
**Sent:** Wednesday, May 27, 2015 3:40 PM  
**To:** Lowe, Leonard, EMNRD (Leonard.Lowe@state.nm.us)  
**Subject:** 4 Pit Closure Notifications - weather permitting

Whiting proposes to close the following drilling pits -

Will close June 1, 2015

AK GEE 1928 30 Well # 1 API NO 30-021-20678  
T19N, R28E, Section 30, Unit Ltr G 1650' FNL & 1650' FEL  
Harding County, NM

Will close June 2, 2015

WHITE-COOK 1828 05 Well # 1 API NO 30-021-20680  
T18N, R28E, Section 5, Unit Ltr G 2300' FNL & 1700' FEL  
Harding County, NM

Will close June 8, 2015

DECATUR 1927 24 Well # 1 API NO 30-021-20679  
T19N, R27E, Section 24, Unit Ltr G 1692' FNL & 2317' FEL  
Harding County, NM

Will close June 9, 2015

GALVESTON 2028 30 Well #1 30-021-20662  
T20N, R28E, Section 30 Unit Ltr K 1700' FSL 1700' FWL  
Harding County, NM

### Kay Maddox

Regulatory Supervisor

**Whiting Petroleum Corporation**

*and its wholly owned subsidiary*

**Whiting Oil and Gas Corporation**

400 West Illinois Avenue, Suite 1300

Midland, TX 79701

Direct (432) 686-6709

Cell (432) 638-8475

[kay.maddox@whiting.com](mailto:kay.maddox@whiting.com)

[www.whiting.com](http://www.whiting.com)

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STATE OF NEW MEXICO

COUNTY OF HARDING


**NOTICE OF PIT CLOSURE**

In accordance with Section 19.15.17.13.E.4 of the NMOCD , the operator hereby provides notice of an on-site burial of a temporary Oil & Gas drilling pit. All rules and regulations of Rule 19.15.17 have been adhered to.

Lease name: WHITE COOK 1828 05  
Well No: 1  
API No: 30-021-20680  
TWN & RGE: TWN 18N RGE 28E Section 05  
Unit Letter: G  
Footages: 2300' FNL & 1700' FEL  
Date of Closure: 06/02/2015

IN WITNESS WHEREOF, the recordation notice of Pit Closure/burial has been executed on the date indicated below by undersigned.

Whiting Petroleum Corporation  
And its wholly owned subsidiary  
Whiting Oil & Gas Corporation

  
\_\_\_\_\_  
Kay Maddox - Regulatory Supervisor

HARDING COUNTY, NM  
DOCUMENT# 20150059  
06/12/15 01:48:13 PM  
1 of 1  
BY CJ Garrison

STATE OF TEXAS  
COUNTY OF MIDLAND

This instrument was acknowledged before me this 5TH day of JUNE, 2015, by

Kay Maddox on behalf of Whiting Oil & Gas Corporation.



  
\_\_\_\_\_  
Notary Public

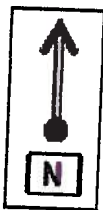
# Pit Plot

Whiting Petroleum Corporation

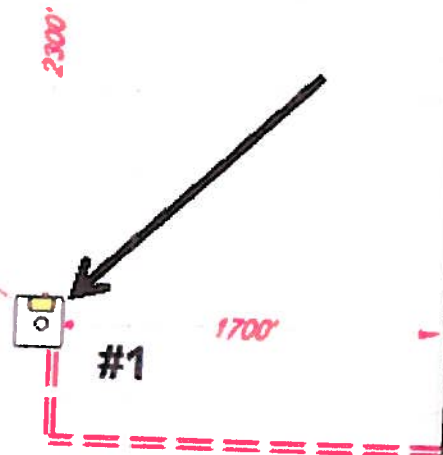
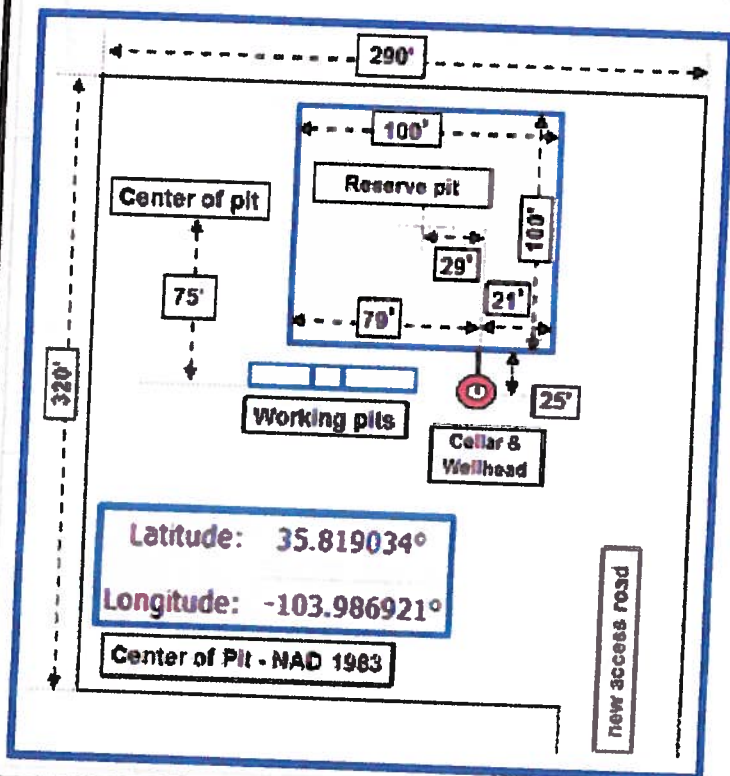
White-Cook 1828 - 5 #1

T-18-N, R-28-E, Section 5, NMPM

Harding County, New Mexico



NAD 27 NME ZONE  
X:602881  
Y:1753453  
LAT:35°49'07.67"  
LON:-103°59'10.72"



April 07, 2015

ROBERT MCNAUGHTON

WHITING OIL & GAS

400 W. ILLINOIS, SUITE 1300

MIDLAND, TX 79701

White-Cook 1828 - 05  
#1

RE: WEST BRAVO DOME

Enclosed are the results of analyses for samples received by the laboratory on 03/26/15 11:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONEReported:  
07-Apr-15 11:58

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GALVESTON 2028 # 291	H500809-01	Soil	25-Mar-15 13:10	26-Mar-15 11:50
LEWIS 2028 # 261	H500809-02	Soil	25-Mar-15 13:40	26-Mar-15 11:50
DECATUR 1927 # 241	H500809-03	Soil	25-Mar-15 14:05	26-Mar-15 11:50
DOROTEO 1927-15 #3	H500809-04	Soil	25-Mar-15 14:40	26-Mar-15 11:50
AK GEE 1928 # 301	H500809-05	Soil	25-Mar-15 15:15	26-Mar-15 11:50
WHITE-COOK 1828-05 #1	H500809-06	Soil	25-Mar-15 15:45	26-Mar-15 11:50

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

### GALVESTON 2028 # 291

H500809-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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### Cardinal Laboratories

#### Inorganic Compounds

Chloride	464		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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#### Organic Compounds

TPH 418.1	599		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Surrogate: 4-Bromofluorobenzene (PID)		104 %	61-154			5032707	ms	28-Mar-15	8021B	

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	14.3		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctane		107 %	47.2-157			5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane		108 %	52.1-176			5032612	MS	26-Mar-15	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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*Celestine Keene*

Celestine D. Keene, Lab Director/Quality Manager



### Analytical Results For:

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

LEWIS 2028 # 261

H500809-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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### Cardinal Laboratories

#### Inorganic Compounds

Chloride	1440		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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#### Organic Compounds

TPH 418.1	2320		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5032707	ms	28-Mar-15	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			104 %	61-154		5032707	ms	28-Mar-15	8021B	

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	18.8		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctane			117 %	47.2-157		5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane			115 %	52.1-176		5032612	MS	26-Mar-15	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

### DECATUR 1927 # 241 H500809-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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### Cardinal Laboratories

#### Inorganic Compounds

Chloride	1120		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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#### Organic Compounds

TPH 418.1	1440		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Surrogate: 4-Bromofluorobenzene (P1D)			108 %	61-154		5032708	ms	28-Mar-15	8021B	

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	41.0		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctane			112 %	47.2-157		5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane			120 %	52.1-176		5032612	MS	26-Mar-15	8015B	

### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

**DOROTEO 1927-15 #3**
**H500809-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**
**Inorganic Compounds**

Chloride	784		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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**Organic Compounds**

TPH 418.1	2660		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total BTX	ND		0.300	mg/kg	50	5032708	ms	28-Mar-15	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 109 % 61-154 5032708 ms 28-Mar-15 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	33.9		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	

Surrogate: 1-Chlorooctane 115 % 47.2-157 5032612 MS 26-Mar-15 8015B

Surrogate: 1-Chlorooctadecane 120 % 52.1-176 5032612 MS 26-Mar-15 8015B

Cardinal Laboratories

\*=Accredited Analyte

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Caley D. Keene, Lab Director/Quality Manager

### Analytical Results For:

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

**AK GEE 1928 # 301**

**H500809-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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### Cardinal Laboratories

#### Inorganic Compounds

Chloride	880		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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#### Organic Compounds

TPH 418.1	933		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			104 %	61-154		5032708	ms	28-Mar-15	8021B	

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	11.2		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctane			112 %	47.2-157		5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane			113 %	52.1-176		5032612	MS	26-Mar-15	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

### WHITE-COOK 1828-05 #1 H500809-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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#### Cardinal Laboratories

#### Inorganic Compounds

Chloride	736		16.0	mg/kg	4	5032615	AP	27-Mar-15	4500-Cl-B	
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#### Organic Compounds

TPH 418.1	1730		100	mg/kg	10	5040701	CK	07-Apr-15	418.1	
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#### Volatile Organic Compounds by EPA Method 8021

Benzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Toluene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Ethylbenzene*	ND		0.050	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total Xylenes*	ND		0.150	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Total BTEX	ND		0.300	mg/kg	50	5032708	ms	28-Mar-15	8021B	
Surrogate: 4-Bromofluorobenzene (P1D)			106 %	61-154		5032708	ms	28-Mar-15	8021B	

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10	ND		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
DRO >C10-C28	42.0		10.0	mg/kg	1	5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctane			113 %	47.2-157		5032612	MS	26-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane			117 %	52.1-176		5032612	MS	26-Mar-15	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 WHITING OIL & GAS  
 400 W. ILLINOIS, SUITE 1300  
 MIDLAND TX, 79701

 Project: WEST BRAVO DOME  
 Project Number: NONE GIVEN  
 Project Manager: ROBERT MCNAUGHTON  
 Fax To: NONE

 Reported:  
 07-Apr-15 11:58

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5032615 - 1:4 DI Water</b>									
<b>Blank (5032615-BLK1)</b>									
Chloride	ND	16.0	mg/kg						Prepared & Analyzed: 26-Mar-15
<b>LCS (5032615-BS1)</b>									
Chloride	416	16.0	mg/kg	400		104	80-120		Prepared & Analyzed: 26-Mar-15
<b>LCS Dup (5032615-BSD1)</b>									
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 WHITING OIL & GAS  
 400 W. ILLINOIS, SUITE 1300  
 MIDLAND TX, 79701

 Project: WEST BRAVO DOME  
 Project Number: NONE GIVEN  
 Project Manager: ROBERT MCNAUGHTON  
 Fax To: NONE

 Reported:  
 07-Apr-15 11:58

**Organic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
<b>Batch 5040701 - Solvent Extraction</b>								
<b>Blank (5040701-BLK1)</b>								
					Prepared & Analyzed: 07-Apr-15			
TPH 418.1	NID	100	mg/kg					
<b>LCS (5040701-BS1)</b>								
					Prepared & Analyzed: 07-Apr-15			
TPH 418.1	4400	100	mg/kg	5000	87.9	70-130		
<b>LCS Dup (5040701-BSD1)</b>								
					Prepared & Analyzed: 07-Apr-15			
TPH 418.1	4400	100	mg/kg	5000	88.1	70-130	0.205	20

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5032707 - Volatiles**

<b>Blank (5032707-BLK1)</b>		Prepared: 27-Mar-15 Analyzed: 28-Mar-15								
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0522		mg/kg	0.0500		104	61-154			

<b>LCS (5032707-BS1)</b>		Prepared: 27-Mar-15 Analyzed: 28-Mar-15								
Benzene	2.16	0.050	mg/kg	2.00		108	77.1-114			
Toluene	1.95	0.050	mg/kg	2.00		97.4	67-114			
Ethylbenzene	1.93	0.050	mg/kg	2.00		96.7	63.5-121			
Total Xylenes	5.90	0.150	mg/kg	6.00		98.3	62.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0491		mg/kg	0.0500		98.2	61-154			

<b>LCS Dup (5032707-BSD1)</b>		Prepared: 27-Mar-15 Analyzed: 28-Mar-15								
Benzene	2.17	0.050	mg/kg	2.00		109	77.1-114	0.627	16.4	
Toluene	1.95	0.050	mg/kg	2.00		97.6	67-114	0.219	16.2	
Ethylbenzene	1.94	0.050	mg/kg	2.00		96.9	63.5-121	0.226	17	
Total Xylenes	5.88	0.150	mg/kg	6.00		98.1	62.4-125	0.279	17	
Surrogate: 4-Bromofluorobenzene (PID)	0.0487		mg/kg	0.0500		97.3	61-154			

**Batch 5032708 - Volatiles**

<b>Blank (5032708-BLK1)</b>		Prepared: 27-Mar-15 Analyzed: 28-Mar-15								
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0543		mg/kg	0.0500		109	61-154			

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
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**Batch 5032708 - Volatiles**
**LCS (5032708-BS1)**

Prepared: 27-Mar-15 Analyzed: 28-Mar-15

Benzene	2.22	0.050	mg/kg	2.00	111	77.1-114		
Toluene	2.00	0.050	mg/kg	2.00	100	67-114		
Ethylbenzene	2.01	0.050	mg/kg	2.00	100	63.5-121		
Total Xylenes	6.16	0.150	mg/kg	6.00	103	62.4-125		
Surrogate: 4-Bromofluorobenzene (PID)	0.0507		mg/kg	0.0500	101	61-154		

**LCS Dup (5032708-BS1)**

Prepared: 27-Mar-15 Analyzed: 28-Mar-15

Benzene	2.22	0.050	mg/kg	2.00	111	77.1-114	0.0622	16.4
Toluene	2.00	0.050	mg/kg	2.00	99.8	67-114	0.364	16.2
Ethylbenzene	1.99	0.050	mg/kg	2.00	99.7	63.5-121	0.691	17
Total Xylenes	6.12	0.150	mg/kg	6.00	102	62.4-125	0.570	17
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500	101	61-154		

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

WHITING OIL & GAS  
400 W. ILLINOIS, SUITE 1300  
MIDLAND TX, 79701

Project: WEST BRAVO DOME  
Project Number: NONE GIVEN  
Project Manager: ROBERT MCNAUGHTON  
Fax To: NONE

Reported:  
07-Apr-15 11:58

**Petroleum Hydrocarbons by GC FID - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5032612 - General Prep - Organics**
**Blank (5032612-BLK1)**

Prepared &amp; Analyzed: 26-Mar-15

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	54.0		mg/kg	50.0		108	47.2-157			
Surrogate: 1-Chlorooctadecane	51.9		mg/kg	50.0		104	52.1-176			

**LCS (5032612-BS1)**

Prepared &amp; Analyzed: 26-Mar-15

GRO C6-C10	208	10.0	mg/kg	200		104	72.5-115			
DRO >C10-C28	210	10.0	mg/kg	200		105	81.3-118			
Total TPH C6-C28	418	10.0	mg/kg	400		105	80-113			
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	47.2-157			
Surrogate: 1-Chlorooctadecane	50.9		mg/kg	50.0		102	52.1-176			

**LCS Dup (5032612-BSD1)**

Prepared &amp; Analyzed: 26-Mar-15

GRO C6-C10	210	10.0	mg/kg	200		105	72.5-115	0.792	10.1	
DRO >C10-C28	210	10.0	mg/kg	200		105	81.3-118	0.116	15.3	
Total TPH C6-C28	420	10.0	mg/kg	400		105	80-113	0.453	12.1	
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	47.2-157			
Surrogate: 1-Chlorooctadecane	50.3		mg/kg	50.0		101	52.1-176			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Whiting Oil & Gas  
Project Manager: Robert McNaughton  
Address: 400 W. Ellivias, Suite 1300  
City: Midland State: Tx Zip: 79701  
Phone #: 806-471-5628 Fax #:   
Project #:  Project Owner:   
Project Name: West Bravo Dome  
Project Location: Harding Co., NM  
Sampler Name: Danny Holcomb  
P.O. #:   
Company: Whiting Oil & Gas  
Attn: Gary Balllock  
Address: 400 W. Ellivias, Suite 1300  
City: Midland State: Tx Zip: 79701  
Phone #:  Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	TPH	TPH	Btex	CI
H500809	<del>Galveston 2028-291</del>						3/25/15	1:10pm	✓	✓	✓	✓
1	Galveston 2028-291							1:40pm	✓	✓	✓	✓
2	Lewis 2028-291							2:05pm	✓	✓	✓	✓
3	Decatur 1927-241							2:40pm	✓	✓	✓	✓
4	Dorco 1927-15-3							3:15pm	✓	✓	✓	✓
5	AK Gec 1928-301							3:45pm	✓	✓	✓	✓
6	White-Cock 1828-05-1								✓	✓	✓	✓

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Relinquished By: DJ Holcomb  
Received By: DJ Holcomb  
Date: 3/26/15  
Time: 11:50 AM

Phone Result: ☐ Yes ☒ No  
Fax Result: ☐ Yes ☒ No  
REMARKS:

Email results to:

djholcomb75@gmail.com  
kay.maddox@whiting.com

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other: 0.12c

Sample Condition  
Cool Intact ☒  
Yes ☒  
No ☐  
Checked By: (Signature)

\* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2476



June 11, 2015

Mr. Leonard Lowe  
New Mexico Oil Conservation Division  
1220 S. St. Francis Dr  
Santa Fe, NM 87505

RE: Pit Closure

Dear Mr. Lowe,

Whiting Oil & Gas shall re-seed the disturbed Pit area for the well listed below. The re-seeding shall occur in the next rainy season documented for Harding County, New Mexico approximately August/September 2015.

If you have additional question please contact me @ 432.686.6709 or [kay.maddox@whiting.com](mailto:kay.maddox@whiting.com)  
Thank you for your time.

Sincerely,

Kay Maddox  
Regulatory Supervisor

WHITE COOK 1828 05 Well # 1  
30-021-20680  
Harding County, New Mexico

*Whiting Petroleum Corporation  
and its wholly owned subsidiary  
Whiting Oil and Gas Corporation*

400 W. Illinois Avenue, Suite 1300, Midland, TX 79701 Office: 432.686.6700 Fax 432.686.6799



**WHITING OIL & GAS CORPORATION**

## Workover and Completion Report

Well Name:	hite-Cook 1828-05	Field:	Other	Date:	06/03/15	Day:	21	Type:	Initial Completion
API:	30-021-20680	Move On Date:	1/12/2015	AFE #:	14-2224-01	Rig:	NA	Supv DH	Depth: 3.054

**Present Operation:** well closed in

Csg:	5-1/2" 15.5# J-55	Liner:	N/A
Rods:	N/A	Perfs:	2834' - 2846', 2858' - 2876', 2893' - 2908' (0.42" hole 6 sqft)
Tbg:	None		<a href="#">Click to Calc. HP - Hrs</a>

**Click to Calc. HP - Hrs**

GHG Gas Vol(Mcf)		Dur. Hrs?	0	####	mcf/d	% of gas		Gas Volume Estimated ??		Producing Method		
Total Rig Hrs:	0	Daily Activity				GHG Event Total HP/Hr (Units > 130 HP)		0	for	0.0	hrs	Units <= 130 HP (Count)

3/26/15

MI dirt equipment, repair road and location from rig demob in mud. MO dirt equipment.

5/4/15

MI Hartley Construction dirt equipment to begin reserve pit closure. Mix contents with clean dirt to stabilize contents. MO dirt equipment

5/27/15

MI dirt equipment, mix pit contents with additional clean dirt to stabilize contents. MO dirt equipment.

6/2/15

MI dirt equipment to perform reserve pit closure per NMOCD rules. Remove barbed wire fencing and posts. Mix pit contents with additional clean dirt to stabilize contents. Cover stabilized cuttings with new 20 mil LLDPE liner cap, fold over outside edges of pit liner bottom, cover new liner cap with a minimum of 4 feet of dirt cover, MO dirt equipment. NMOCD notified and not present.

6/3/15

Install 4.5" OD steel pit burial marker in center of pit burial (set in concrete). Final blade surface.

Will reseed pit closure area during 2015 planting season. Danny

**Costs:**

<u>Expense Account Codes</u>	<u>Capital Account Codes</u>	<u>Comments</u>	<u>Amount</u>
	811.94 Contract Services and Equipmer	Hartley Construction - pit closure	\$ 14,273.35
	811.39 Contract Labor	EWC - consultant	\$ 1,350.00
	811.94 Contract Services and Equipmer	Pacheco Trucking - dewater pit	\$ 15,200.00
	811.94 Contract Services and Equipmer	Renegade Wireline - BHP survey	\$ 4,248.00
		Daily Total:	\$ 35,071.35
		Prev. Total:	



# Whiting Oil & Gas Corp.

WHITE COOK 1828-5 #1  
UNIT G, SEC. 5, T18N, R28E  
2300' FNL & 1700' FEL  
API #30-021-20680 HARDING CO., NM



Looking  
west





Looking South





Looking North





Looking East







Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

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

WELL API NO.  
30-021-20680

5. Indicate Type of Lease  
STATE ☐ FEE ☒  
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name  
WHITE-COOK 1828 05

8. Well Number 01

1. Type of Well: Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
WHITING OIL AND GAS CORPORATION

9. OGRID Number 25078

3. Address of Operator  
400 W ILLINOIS STE 1300 MIDLAND, TX 79701

10. Pool name or Wildcat  
WILDCAT; TUBB CO2 GAS POOL

4. Well Location

Unit Letter G 2300 feet from the NORTH line and 1700 feet from the EAST line

Section 05 Township 18N Range 28E NMPM County HARDING

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5580' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: CLOSED TEMPORARY PIT

☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

01/12/2015 SPUDDED WELL

01/13/2015 DRLD 12 1/4 HOLE, RAN 9 5/8" J-55 36# CSG SET @ 772' W/ 350 SXS LEAD CMT(12.5 PPG 1.98 YIELD) + 150 SXS TAIL CMT (14.8 PPG, 1.34 YIELD), CIRCULATED 59 SXS CMT TO SURFACE, PRESS TO 600#, HELD

01/23/2015 DRLD 8 1/4 HOLE TO TD 3054, RAN 5 1/2 J-55 15.5# CSG SET @ 3054 W/600 CL C SXS LEAD CMT (12.10 PPG 2.40 YIELD) + 300 CL C SXS CMT (14.8 PPG, 1.34 YIELD), CIRCULATED 72 BBLS CMT TO SURFACE, PRESS TO 600# HELD

01/24/2015 RELEASED DRLG RIG

06/02/2015 CLOSED TEMPORARY PIT

Spud Date: 01/12/2015

Rig Release Date: 01/24/2015

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE: REGULATORY ANALYST DATE: 06/05/2015

Type or print name Kay Maddox E-mail address: [kay.Maddox@Whiting.com](mailto:kay.Maddox@Whiting.com) PHONE: 432-638-8475

For State Use Only

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Conditions of Approval (if any): \_\_\_\_\_



**DISTRICT I**

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico

Form C-102

**DISTRICT II**

1801 W. Grand Avenue, Artesia, NM 88210

Energy, Minerals, and Natural Resources Department

Revised October 12, 2005

**DISTRICT III**

1000 Rio Brazos Rd., Aztec, NM 87410

**OIL CONSERVATION DIVISION**

Submit to Appropriate District Office

State Lease - 4 copies

Fee Lease - 3 copies

**DISTRICT IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number	<sup>2</sup> Pool Code 98104	<sup>3</sup> Pool Name WILDCAT; Tubb CO <sub>2</sub> GAS POOL
<sup>4</sup> Property Code	<sup>5</sup> Property Name WHITE-COOK 1828-5	<sup>6</sup> Well Number #1
<sup>7</sup> OGED No. 25078	<sup>8</sup> Operator Name WHITING OIL & GAS CORPORATION	<sup>9</sup> Elevation 5580'

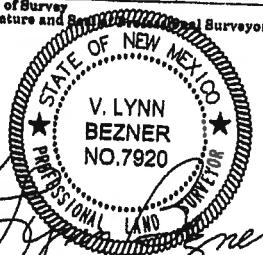
**10 Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	18 NORTH	28 EAST, N.M.P.M.		2300'	NORTH	1700'	EAST	HARDING

**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
<sup>12</sup> Dedicated Acres 162.93	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. NSL-7179						

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

X:599274 Y:1755741	NAD 27 NME ZONE X:602881 Y:1753453 LAT:35°49'07.67" LON:-103°59'10.72"	X:604574 Y:1755758	<b>17 OPERATOR CERTIFICATION</b> 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 undivided 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. <i>Kay Maddox</i> 11/6/14 Signature Date Printed Name
X:599290 Y:1750437		X:604590 Y:1750453	<b>18 SURVEYOR CERTIFICATION</b> 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. NOVEMBER 4, 2014 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number V. Lynn Bezner P.S. #7920 FILE:LO_WHITE_COOK_1828_5_1 C.E.