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.

12164

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.

OIL CONS. DIV DIST. 3
AUG 18 2014

1.
Operator: **Whiting Oil & Gas Corp** OGRID #: **25078**
Address: **400 W. Illinois, Suite 1300, Midland, Texas 79701**
Facility or well name: **Candelario 1928 #101**
API Number: 30-021-20659 OCD Permit Number:
U/L or Qtr/Qtr **J** Section **10** Township **19-N** Range **28-E** County: **Harding**
Center of Proposed Design: Latitude **35.8881500** Longitude **-103.9503417** 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: **14,250** Bbl Dimensions: L **100'** x W **100'** x D **8'**

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

21

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. ☐ Yes ☒ No ☐ NA
- ☒ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☒ Data obtained from nearby wells

Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. ☐ Yes ☒ No ☐ NA
NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

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)** ☐ Yes ☒ No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** ☐ Yes ☒ No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

Within an unstable area. **(Does not apply to below grade tanks)** ☐ Yes ☒ No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

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;. ☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

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.) ☐ Yes ☒ No
- Topographic map; Visual inspection (certification) of the proposed site

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. ☐ Yes ☒ No
NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

Within 100 feet of a wetland. ☐ Yes ☒ No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

Temporary Pit Non-low chloride drilling fluid

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

Permanent Pit or Multi-Well Fluid Management Pit

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

10.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

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

11.

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

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

12.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

13.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal

☐ Waste Removal (Closed-loop systems only)

☒ On-site Closure Method (Only for temporary pits and closed-loop systems)

☒ In-place Burial ☐ On-site Trench Burial

☐ Alternative Closure Method

14.

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

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

15.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

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

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No

Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No

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

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

17.
Operator Application Certification:

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

Name (Print): Robert McNaughton Title: Sr. Operations Engineer

Signature: [signature] Date: 8-15-14

e-mail address: Robert.McNaughton@Whiting.com Telephone: 432-413-2989

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

OCD Representative Signature: Jonathon D. Kelly **Approval Date:** 8/27/2014

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:**

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 Longitude 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): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

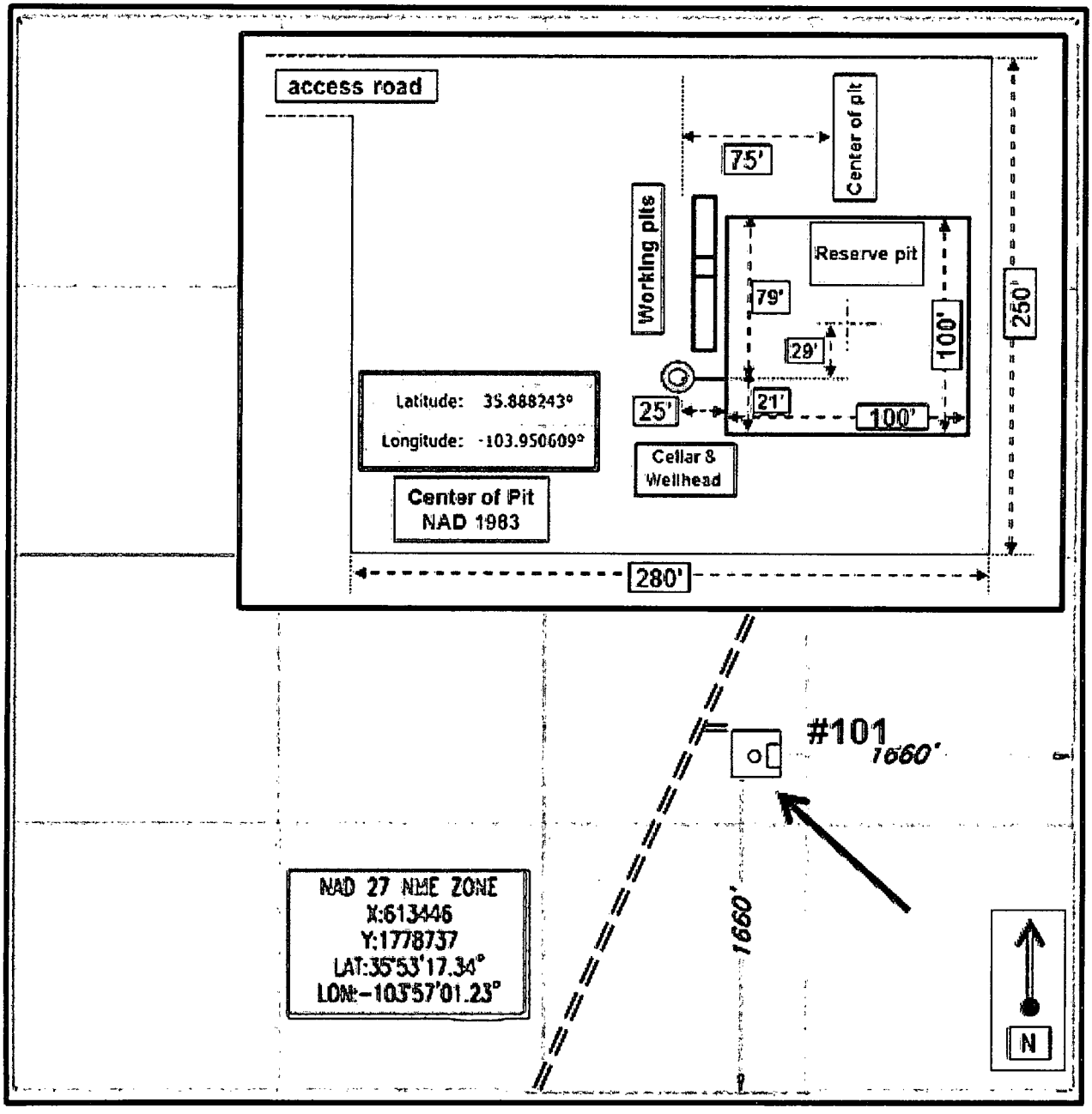
Pit Plot

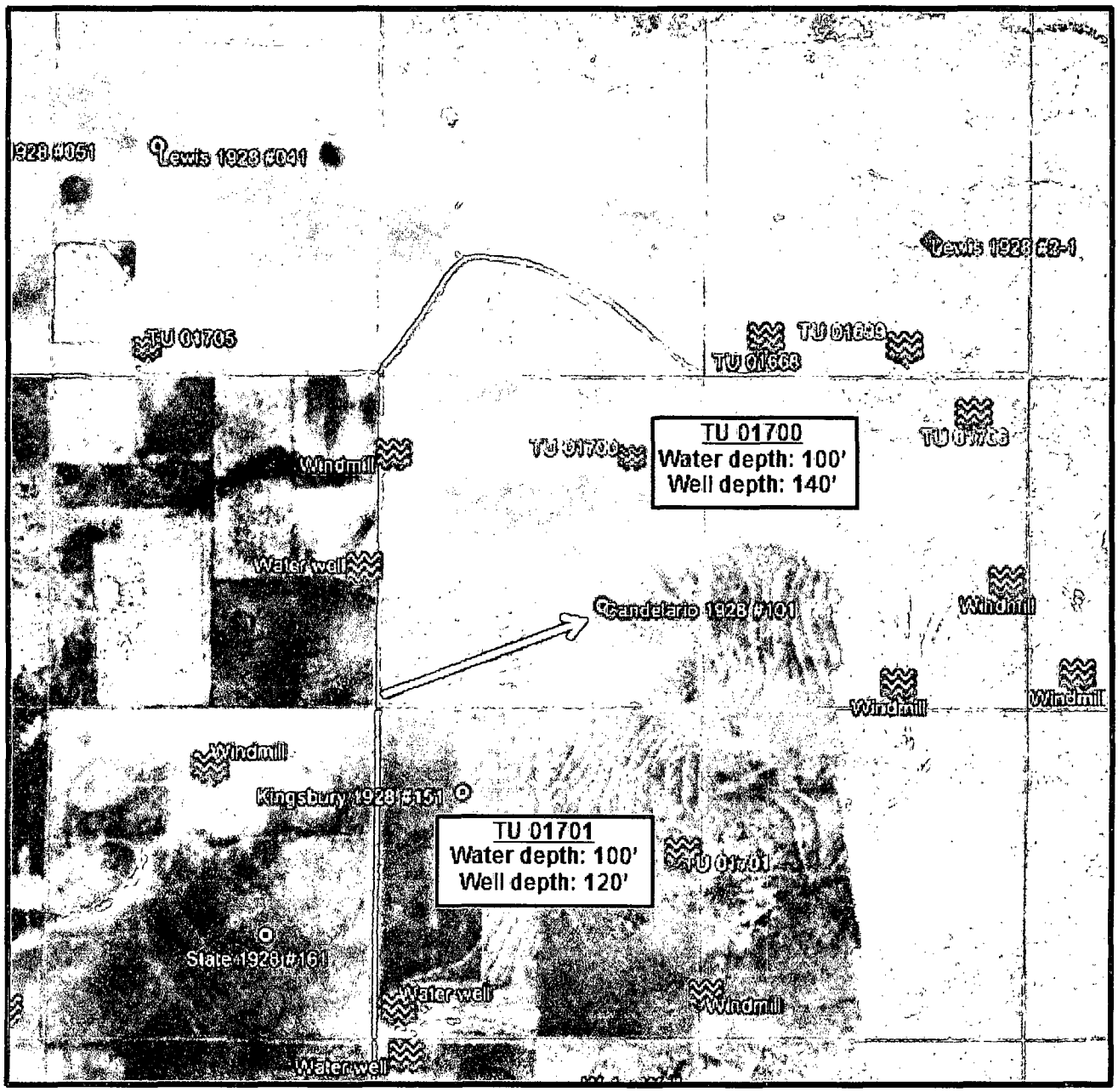
Whiting Petroleum Corporation

Candelario 1928 #101

T-19-N, R-28E, Section 10 NMPM

Harding County, New Mexico





Location Photo #1

Whiting Petroleum Corporation

Candelario 1928 #101

T-19-N, R-28E, Section 10 NMPM

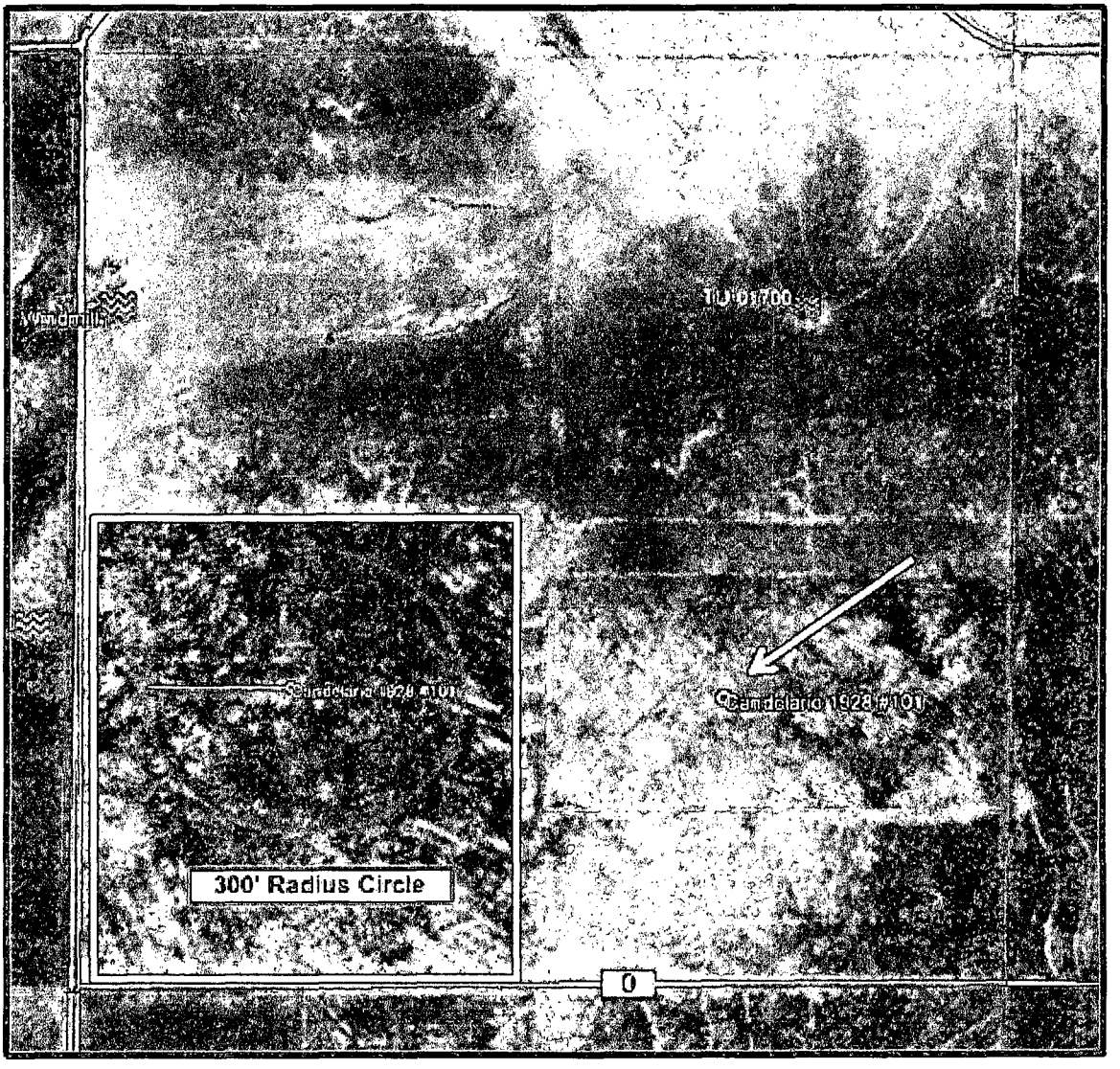
Harding County, New Mexico

Well Name: **Candelario 1928 #101**

Surface Hydrology:
The local surface is controlled by terraced fields, scattered draws and dry playa lakes. Heavy runoff around the location should flow north or east over a half-mile to intermittent creeks that drain into a dry playa. Aerial photos indicate that the reserve pit will be greater than 300 feet from any significant waterways or surface water (see Air Photos 1 and 2, attached).

Ground Water Hydrology:
The High Plains aquifer extends westward into eastern Harding County, but in the proposed project region there is no principal aquifer. Aquifers do not exist here, yield too little water for water wells to be significant, or yield insufficient water to supply local requirements. When present, they are not extensive enough to be classified as major aquifers.

Sources: New Mexico Office of the State Engineer. 2011. Waters/ NMRRWS data base
http://www.ose.state.nm.us/water_info_data.html .



Location Photo #2

Candelario 1928 #101

Offset Fresh Water Wells, Houses, Municipalities

Siting Criteria and Compliance Demonstrations

1. Depth to groundwater (should not be less than 50 feet):

   Depth to groundwater is unknown at this exact location, but could be encountered around 100'. In the general area, total depths of water wells range from less than 100' near draws and playas and as deep as 300'. The nearest recorded well with available water-depth information is almost a half-mile north of this location (see Air Photo I). The wells identified from OSE records (see Air Photo 1) are listed below:

Well	Distance/Direction from Proposed Project Area	Depth of Well	Depth to Water
TU 01700	~2245' miles N	140'	100'
TU 01701	~4380' miles S	120'	100'

   Sources: New Mexico Office of the State Engineer. 2011. Waters/ NMRRWS data base http://www.ose.state.nm.us/water_info_data.html

2. Distance to watercourse (should not be within 300 feet of a continuously flowing watercourse or 200' feet of any other significant watercourse or lakebed, sinkhole, or playa lake):

   Aerial photos and a visit to the location indicate that there are no sinkholes, playa lakes, or watercourses within 300 feet of the proposed pit/system. The nearest intermittent creek is over a half mile away to the northwest (see Location Photo 2).

3. Distance to buildings (should not be within 300 feet of any permanent buildings):

   Aerial photos and a site visit indicate that the pit will not be within 300 feet of any of these locations (see Location Photo 2).

4. Distance to springs or wells (should not be within 500 feet of a private, domestic fresh water well or spring used by less than five (5) households or within 1000 feet of any other fresh water well or spring):

   Air photos indicate the pit will not be within 500 feet of any recorded well or spring (see Photo 1 & 2).

5. Presence within incorporated area (should not be within incorporated municipal boundaries or within defined municipal fresh water well field covered under municipal ordinance):

   The aerial photo and a site visit indicate the pit will not be within an incorporated area or municipal fresh water well field (see Location Photo 1 & 2).

6. Distance to wetlands (should not be within 500 feet):

   The aerial photo and a site visit indicate that the location is not within 500 feet of a wetland.

7. Location above subsurface mine (should not overlie a subsurface mine):

   The pit will not overlie a mine. The 2009 Mines, Mills, and Quarries map, an aerial photo and a site survey indicate that there are no subsurface mines in the area.

8. Presence within unstable area (should not be within an unstable area):

   A topographic map and aerial photo indicate the location will not be within an unstable area. The location will be on a gentle slope (see Location Photo 2).

Siting Criteria and Compliance Demonstrations, cont'd

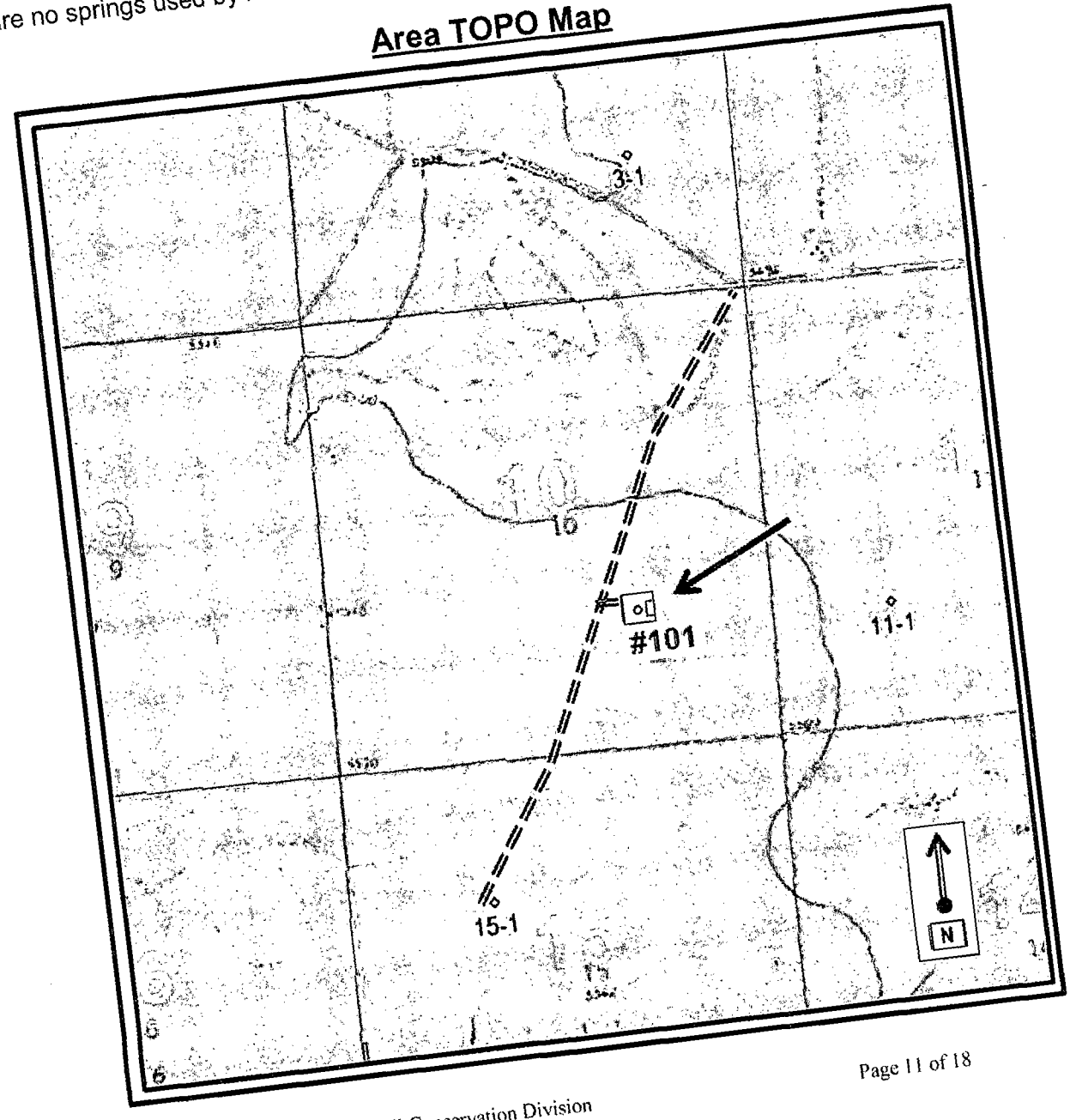
9. Stockpile material: Will not be stored within 100' from continuously flowing water course, or other significant water course, 200' from lake bed, sink hole or playa, 100' from a wetland or in a 100 year flood plain.

Stockpile material will be stored at the edge of the new pad. Aerial photos and a visit to the location indicate that the stockpile will be more than 100' from a continuously flowing water course, or other significant water course, more than 200' from any lake bed, sink hole or playa. There are no wetlands in the area and it will not be in a 100 year flood plain.

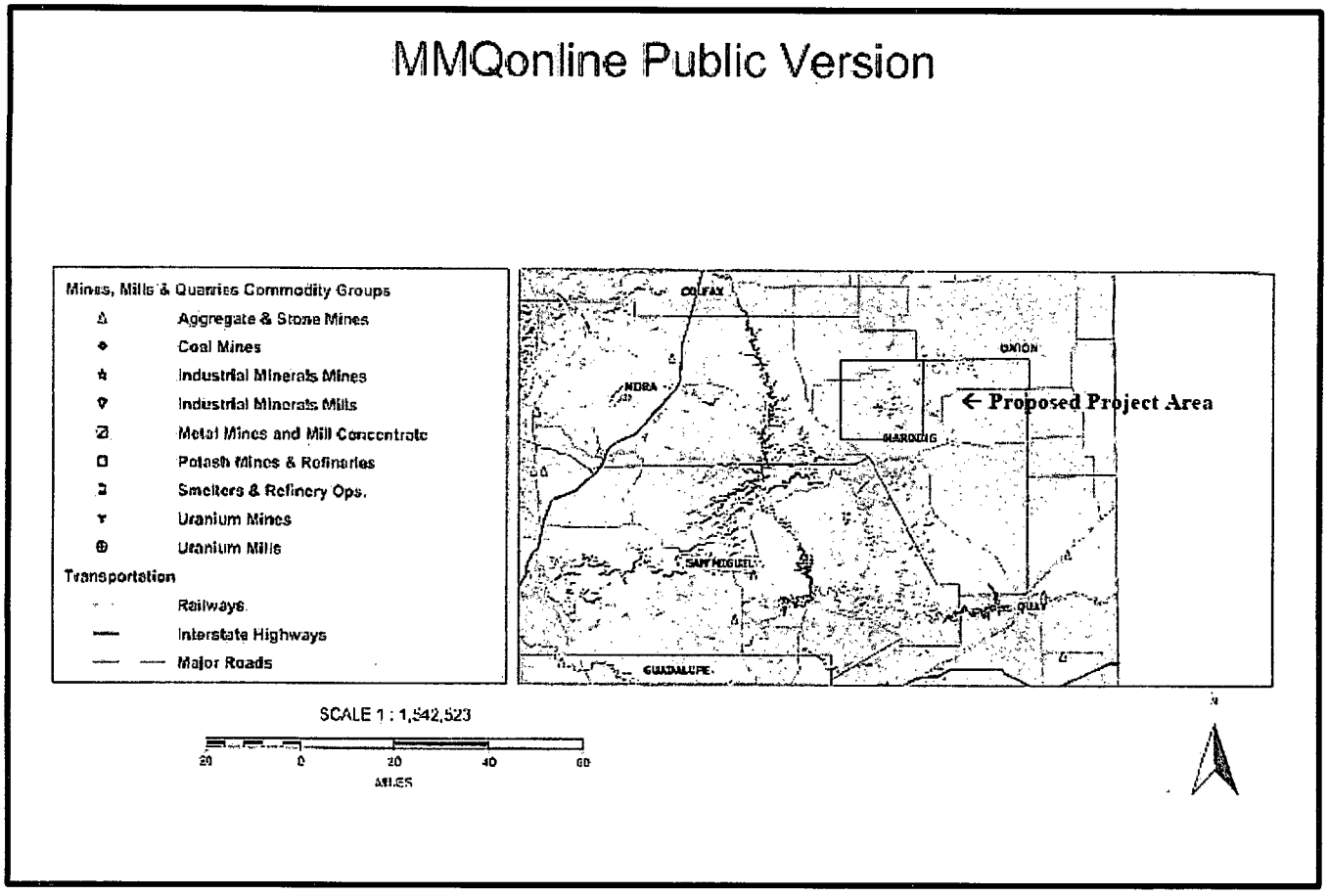
10. In-place closure: Depth to ground water is estimated to be greater than 25' from bottom of pit, not within 100' of continuously flowing water course, or significant water course, 300' of a wetland, 300' from private water well, or spring used by less than 5 households.

Ground water is estimated to be encountered around 100' from the bottom of the pit. The pit is not within 100' of any continuously flowing water course, or other significant water course. There are no wetlands in the area and the closest private water well is about 2245' away (semi-active water well). There are no springs used by less than 5 households in this section.

Area TOPO Map



MINES, MILLS, AND QUARRIES IN NEW MEXICO



Sources:

New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2008.

http://www.emnrd.state.nm.us/Maps/MMQActiveMines/index.html
Accessed June 2014.

NMOCD drilling applications for offset and regional wells, primarily recent wells drilled by Hess in the west Bravo Dome Unit. Also reviewed recent applications for OXY wells in the Bravo Dome CO2 unit to the east. There are no records of any subsurface mines or deep aggregate mines within the project area.

FEMA ISSUED FLOOD MAPS

11. Presence within floodplain (should not be within a 100-year floodplain):

The location (Harding County, NM) has not been mapped by FEMA. However, aerial photos and offset drilling permits indicate that the location is not within a floodplain. It is located on top of a flat mesa and any regional flooding will be unprecedented.

Temporary Drilling Pit - Design Plan

(Based on Appropriate Requirements of 19.15.17.11 NMAC)

Design and construction specifications for this temporary pit are as follows:

1. Prior to constructing the pit, topsoil will be stripped and stockpiled for use as final cover or fill at the time of closure.

2. An upright sign (at least 12" x 24" with lettering at least 2" in height) will be placed conspicuously on the fence surrounding the pit, or will use a well sign (complying with 19.15.3.103 NMAC). The sign will be posted in a manner and location such that the legend can be easily read, and will contain the following information: operator's name, legal location (quarter-quarter or unit letter, section, township, and range), and emergency telephone number(s).

3. The pit will be fenced or enclosed in a manner that prevents unauthorized access. The fence will be at least four (4) foot in height with at least four (4) strands of barbed wire evenly spaced between the top and bottom. Fences will be maintained in good repair. During drilling or workover operations, three (3) sides of the pit will be fenced; the side adjacent to the drilling or workover rig will remain open only during such operations.

4. The pit will be designed and constructed to ensure the confinement of liquids.

5. The pit will be constructed with a properly constructed foundation and interior slopes consisting of a firm, unyielding base. The pit will be smooth and free of rocks, debris, sharp edges, or irregularities to prevent the liner's rupture or tearing. Slopes will be no steeper than two (2) horizontal feet to one (1) vertical foot (2H: 1V).

6. The pit will have a geo-membrane liner with 20-mil string-reinforced LLDPE or its equivalent (approved by the division district office). This liner will be composed of an impervious, synthetic material resistant to petroleum hydrocarbons, salts, and acidic and alkaline solutions. The liner will be resistant to ultraviolet light. The liner will comply with EPA SW-846 method 9090A.

7. Qualified personnel will perform field seaming. Liner seams will be minimized, particularly in corners and irregularly shaped areas. Field liner seams will be welded. Factory-welded seams will be used where possible. Prior to field seaming, liners will be overlapped four (4) to six (6) inches and will be oriented parallel to the line of maximum slope (along, not across, the slope).

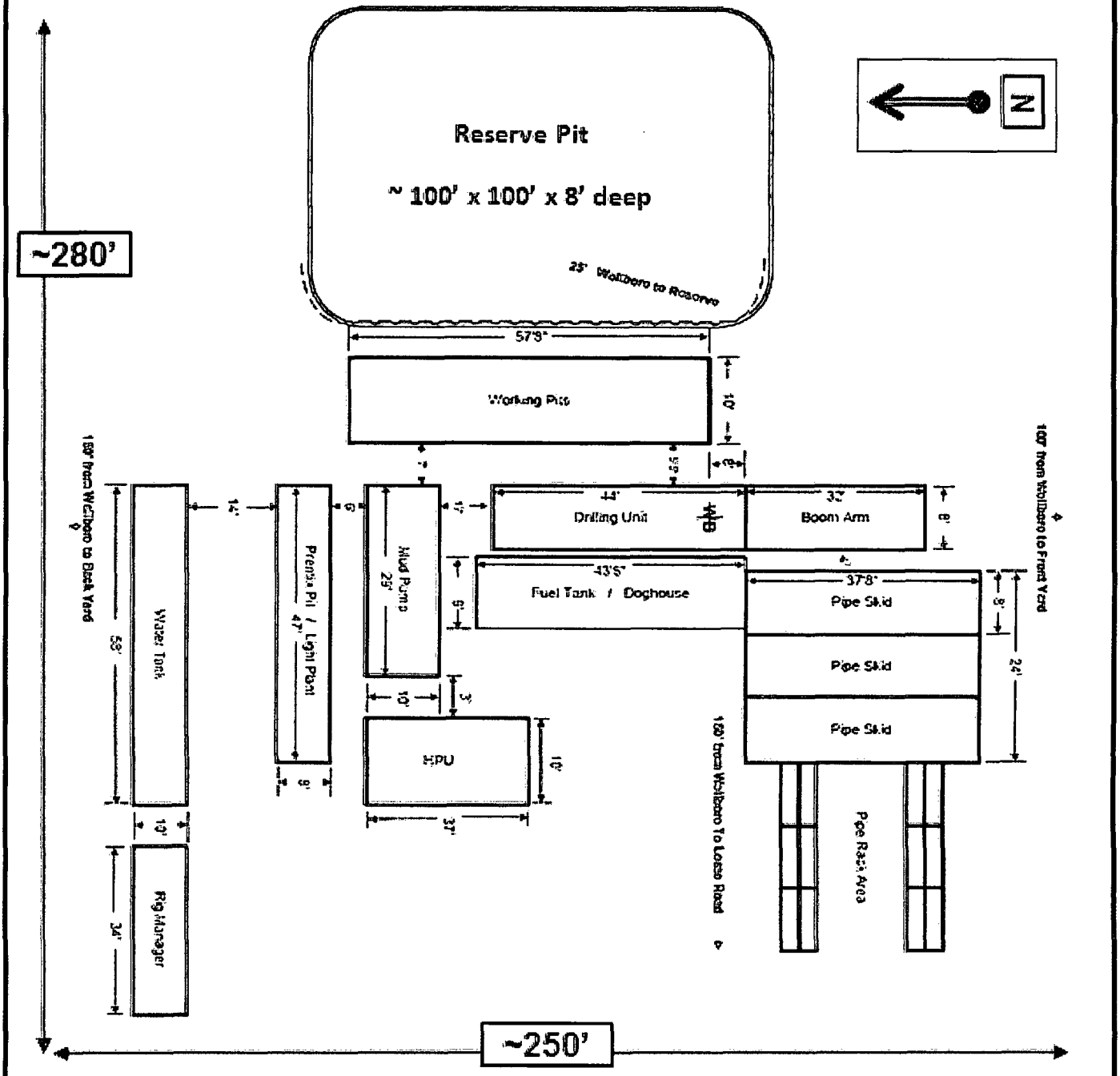
8. Construction will avoid excessive stress-strain on the liner. Geotextile will be used under the liner where needed to reduce localized stress-strain or protuberances that may compromise the liner's integrity. The edges of all liners will be anchored in the bottom of a compacted, earth-filled trench that is at least 18" deep.

9. The liner will be protected from any fluid force or mechanical damage at any point of discharge into or suction from the pit. A berm, ditch, proper sloping, or other diversion will be constructed around the pit to prevent run-on of surface water. During drilled operations, the edge of the pit adjacent to the drilling or workover rig may not have protection if the pit is being used to collect liquids escaping from the rig and run-on will not result in a breach of the pit.

10. The volume of the pit will not exceed **14,250** Bbls, including freeboard.

11. If a flare portion of the pit is needed, it will be unlined and designed to drain to the temporary pit. However, this well will produce dry CO_2 and no flaring is expected.

Trinidad #211/ #216 Drilling Rig



Rig and Location Diagram

Temporary Drilling Pit - Operating & Maintenance Plan

(Based on Appropriate Requirements of 19.15.17.12 NMAC)

Operating and maintenance specifications for this temporary pit are as follows:

1. The pit will be maintained to contain liquids and solids, prevent contamination of fresh water, and protect public health of the environment.

2. All drilling fluids will be recycled, reused, reclaimed, or disposed of in a manner approved by division rules and that prevents contamination of fresh water and protects public health and the environment.

3. Hazardous waste will not be discharged into or stored in the pit.

4. If the pit liner's integrity is compromised or if penetration of the liner occurs above the liquid's surface, the appropriate division district office will be notified, and the liner will be repaired or initiate replacement of the liner within 48 hours of the discovery.

5. If the pit develops a leak or if any penetration of the liner occurs below the liquid's surface, Within 48 hours of discovery all liquid above the leak line will be removed, the appropriate division district office will be notified, and the liner will be repaired or initiate replacement.

6. The injection or withdrawal of liquids from the pit will be accomplished via a header, diverter, or other hardware that prevents damage to the liner by erosion, fluid jets, or impact from installation and removal of hoses or pipes.

7. Pit operation will prevent the collection of surface water run-on.

8. An oil-absorbent boom or other device will be installed and maintained onsite to contain and remove oil from the pit's surface.

9. Only fluids used or generated during drilling or workover processes will be discharged into the pit. The pit will remain free of miscellaneous solid waste or debris. A tank made of steel or other division district office-approved material will be used to contain hydrocarbon-based drilling fluids. Immediately after cessation of a drilling or workover operation, any visibly or measurable layer of oil will be removed from the surface of the pit.

10. At least two (2) feet of freeboard will be maintained.

11. The pit will be inspected at least once daily while the drilling or workover rig is onsite. Thereafter, the pit will be inspected weekly as long as liquids remain within it. An inspection log will be maintained and made available to the division district office upon request. A copy of the log will be filed with the division district office at the time of pit closure.

12. All free liquids will be removed from the pit within 30 days from release of the drilling or workover rig. On form C-105 or C-103, the date of the drilling or workover rig's release will be noted. If necessary, an extension of up to three (3) months may be requested from the division district office; this extension may or may not be granted.

13. All cavitation fluids will be removed within 48 hours of completing cavitation.

Temporary Drilling Pit: Pit Inspection Log

Well	Candelario 1928 #101	Liner Type & Thickness	
API#	30 - 021 - _____	Rig Mobilization Date:	
County	Harding	Rig Demobilization Date:	

Inspection Date	Time	By Whom	Has any hazardous waste been disposed of in the pit?	Is the pit liner intact and free of penetrations?	Distance from top of pit to fluid (minimum 2').

All pits to be inspected **DAILY** during drilling and completion operations and **Weekly** thereafter. All penetrations or damage to the liner must be reported to the NMOCD within 48 hours.

Temporary Drilling Pit – Closure Plan

(Based on Appropriate Requirements of Subsection C, 19.15.17.9 NMAC & 19.15.17.13 NMAC)

Closure specifications for this temporary pit are as follows:

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.

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.

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.

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

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.

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

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**

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

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: (Detailed Below)

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 (detailed below), re-contouring to match original contours and surrounding topography, and re-vegetating (detailed below).

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.

Closure specifications for this temporary pit , continued:

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

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.

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

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.

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

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

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.

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

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

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.

New Mexico Office of the State Engineer
Point of Diversion Summary

POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	(quarters are 1=NW 2=NE 3=SW 4=SE)			(quarters are smallest to largest)			(NAD83 UTM in meters)	
TU 01700 POD1	1	4	2	10	19N	28E	594817	3972704

Driller License:

Driller Name: UNKNOWN

Drill Start Date:		**Drill Finish Date:**	12/31/1906	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	5 GPM
Casing Size:	6.00	**Depth Well:**	140 feet	**Depth Water:**	100 feet

New Mexico Office of the State Engineer
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DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, 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 Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name	
	96010	BRAVO DOME CARBON DIOXIDE (640)	
[4] Property Code	[5] Property Name		[6] Well Number
	CANDELARIO 1928		101
[7] OGRID No.	[8] Operator Name		[9] Elevation
25078	WHITING OIL & GAS CORPORATION		5519'

[10] Surface Location

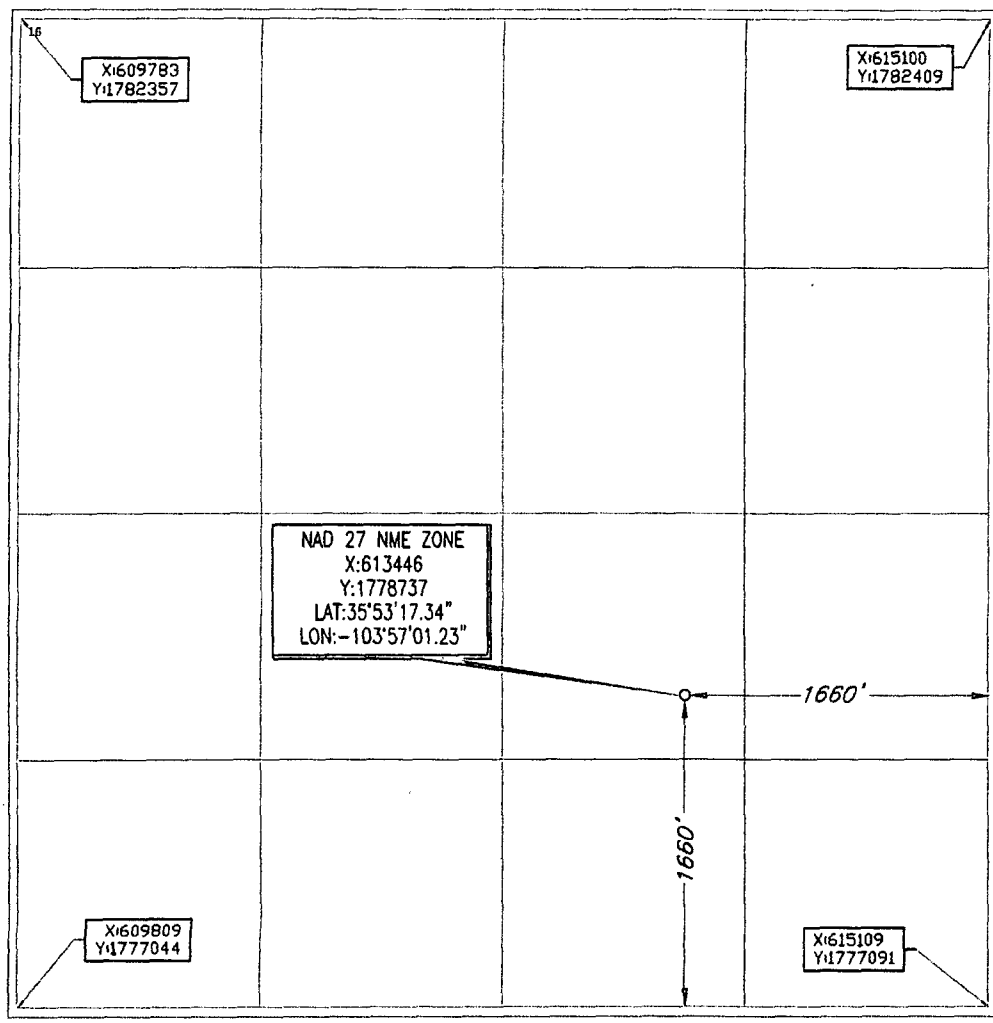
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	19 NORTH	28 EAST, N.M.P.M.		1660'	SOUTH	1660'	EAST	HARDING

Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640			

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



[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.

Kay Maddox 8/15/14
Signature Date

KAY MADDOX
Printed Name

[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.

AUGUST 4, 2014
Date of Survey
Signature and Seal of Professional Surveyor

STATE OF NEW MEXICO
V. LYNN BEZNER
NO.7920
PROFESSIONAL LAND SURVEYOR

Certificate Number
V. Lynn Bezner P.S. #7920

FILE:LO_CANDELARIO_1928_101 C.E.