

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

5745

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

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

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, 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.

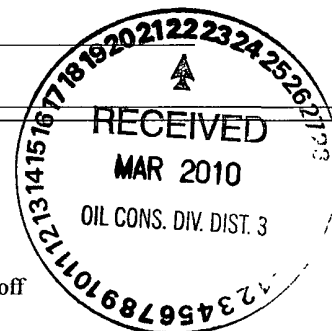
1.
Operator: DEVON ENERGY Production Company, L.P. OGRID #: 06137
Address: 20 N. Broadway, Oklahoma City, OK 73102
Facility or well name: NEBU #446A
API Number: _____ OCD Permit Number: _____
U/L or Qtr/Qtr D Section 33 Township T31N Range R7W County: San Juan
Center of Proposed Design: Latitude 36.86024 Longitude -107.58187 NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: 11,848 bbl Dimensions: L 180' x W 60' x D 12'

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 80 bbl Type of fluid: Produced Water
Tank Construction material: Steel
☐ 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 Double wall with visible sidewalls

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.



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6.

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 _____

7.

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)

8.

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 19.15.3.103 NMAC

9.

Administrative Approvals 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:

- ☒ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

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. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☒ No

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 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

(Applies to temporary, emergency, or cavitation pits and below-grade tanks)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☒ No

☐ NA

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

(Applies to permanent pits)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☒ No

☐ NA

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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 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 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ 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

11.

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: _____

12.

Closed-loop Systems 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.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - 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: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

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

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Quality Control/Quality Assurance Construction and Installation Plan
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
☐ Emergency Response Plan
☐ Oil Field Waste Stream Characterization
☐ Monitoring and Inspection Plan
☐ Erosion Control Plan
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

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 ☐ Closed-loop System
☐ 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

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 F 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 I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____
 Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ 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 I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

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 may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

18.

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 F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 Subsection F of 19.15.17.13 NMAC
☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

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): Mike Pippin Title: Petroleum Engineer

Signature: *Mike Pippin* Date: 3/22/10

e-mail address: mike@pippinllc.com Telephone: 505-327-4573

20.

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

OCD Representative Signature: *Jonett D. Kelly* Approval Date: 6/27/2011

Title: Compliance Officer OCD Permit Number: _____

21.

Closure Report (required within 60 days of closure completion): Subsection K of 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: _____

22.

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.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.

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)
☐ 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

25.

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: _____

District I
1625 N. French Dr., Hobbs NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 87210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87504-2088

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 71629		3 Pool Name BASIN FRUITLAND COAL	
4 Property Code 19641		5 Property Name NEBU			6 Well Number # 446A
7 OGRID No 6137		8 Operator Name Devon Energy Production Company, L.P.			9 Elevation 6359

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
D	33	31 N	7 W		1030	NORTH	1005	WEST	SAN JUAN

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
C	33	31 N	7 W		1135	NORTH	1830	WEST	SAN JUAN

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

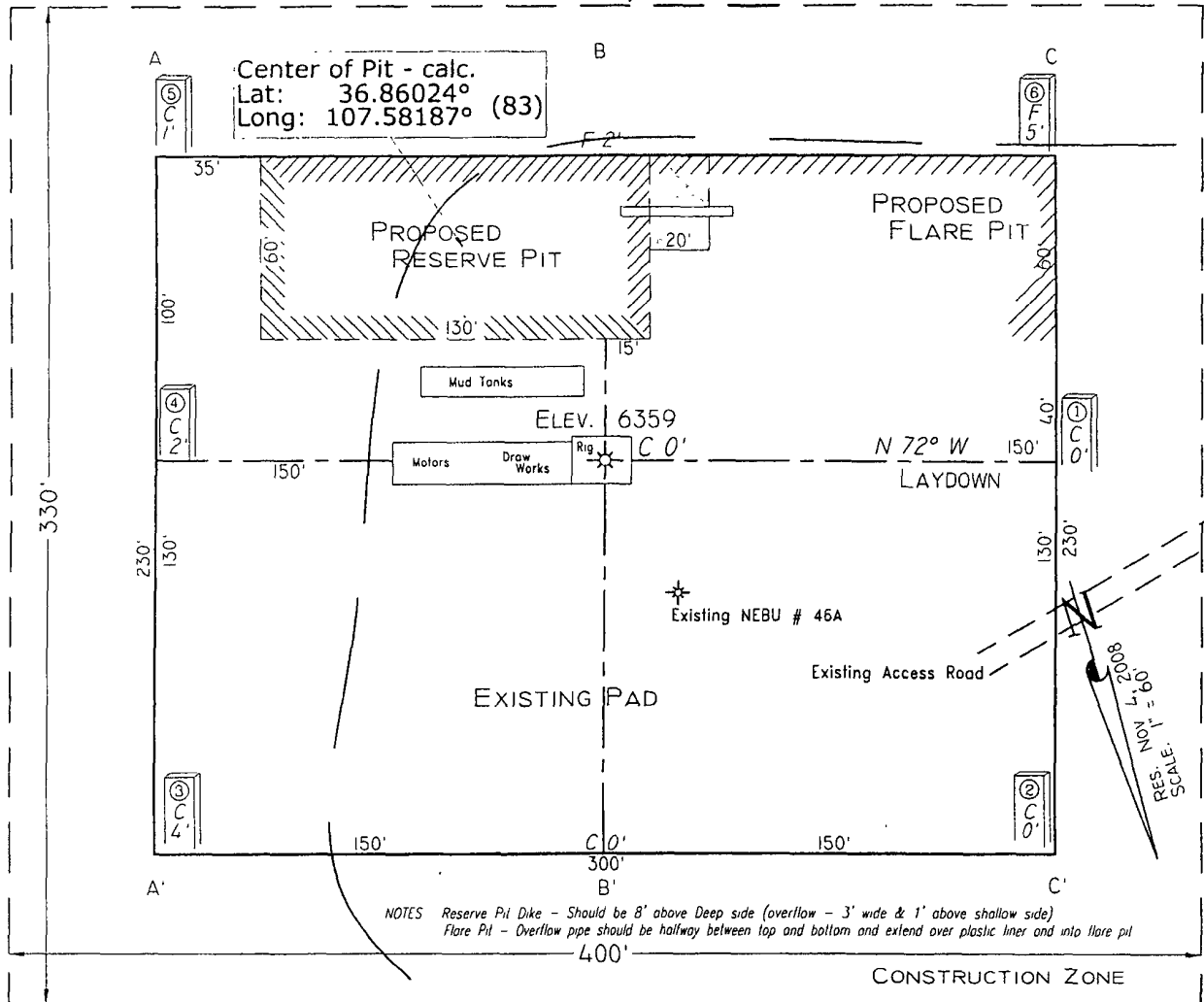
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p>		<p>17 OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Mike Pippin</i> 3/22/10 Signature Date MIKE PIPPIN Printed Name</p>
<p>Section 33</p>		<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Restaked: Nov. 4, 2008 Date of Survey Signature and Seal of Professional Surveyor</p> <p>7016 Certificate Number</p>

PAD LAYOUT PLAN & PROFILE
DEVON ENERGY PRODUCTION COMPANY, L.P.

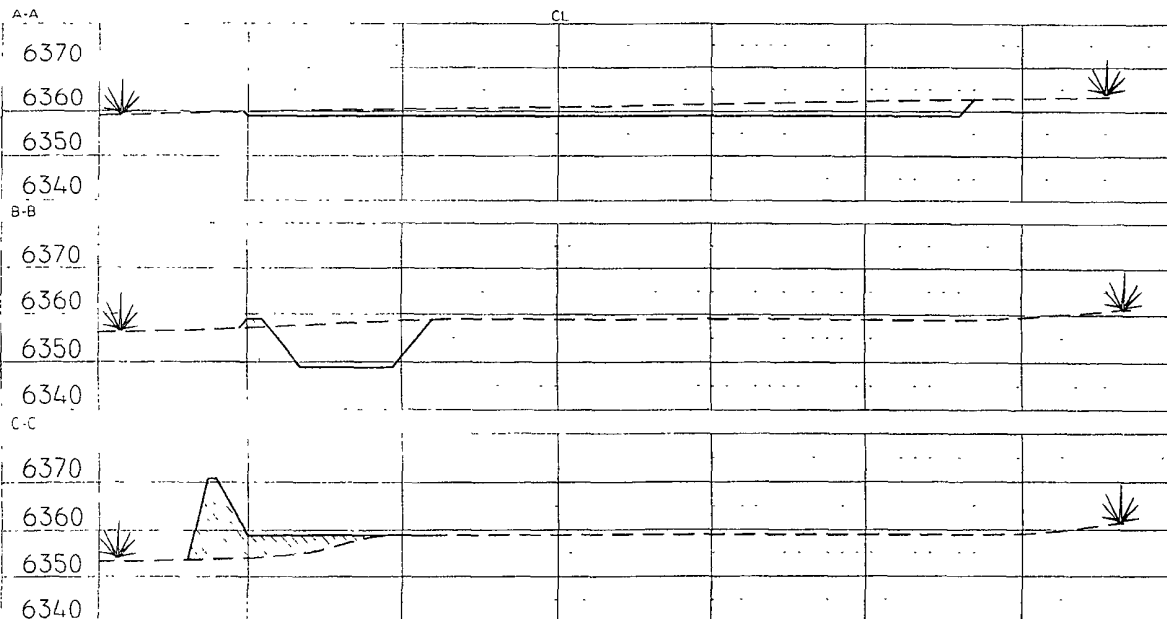
Nebu # 446A
 1030' F/NL 1005' F/WL
 SEC. 33, T31N, R7W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36.86047°
 Long: 107.58195° (83)



Area of Construction Zone - 330'x400' or 3.03 acres, more or less

SCALE 1"=60'-HORIZ
 1"=40'-VERT



NOTE Lot & Long are for mapping purposes only and are not to be relied upon for re-establishment of well location

NOTE Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor

VANN SURVEYS
 P. O. Box 1306
 Farmington, NM

**Pit Permit
Siting Criteria
Information Sheet**

Client:	Devon Energy
Project:	Pit Permits
Revised:	3/11/2010
Prepared by:	Brooke Herb

API#:

USPLSS:

Name:

Lat/Long:

Depth to groundwater:

Geologic formation:

Distance to closest continuously flowing watercourse:

Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:

Soil Type:

Permanent residence, school, hospital, institution or church within 300'

Annual Precipitation:

Domestic fresh water well or spring within 500'

Precipitation Notes:

Any other fresh water well or spring within 1000'

Within incorporated municipal boundaries

Attached Documents:

Within defined municipal fresh water well field

Wetland within 500'

Mining Activity:

Within unstable area

Within 100 year flood plain

Additional Notes: All ranges and bearings from the site to identified hydrogeologic features were measured from the aerial photo and confirmed during a site visit. The aerial photo is dated July 30, 2005. More recent aerial photos are available (2007), but show lower lake levels. The 2005 photo aids reviewers by allowing assessment during wetter conditions.

NEBU #446A
Below Ground Tank
Hydrogeologic Report for Siting Criteria

General Geology and Hydrology

The San Juan Basin is a typical Rocky Mountain basin with a gently dipping southern flank and a steeply dipping northern flank. Asymmetrically layered Tertiary sandstones and shales, along with Quaternary alluvial deposits, dominate surficial geology (Dane and Bachman, 1965). The proposed pit location will be located in the north-central San Juan Basin near Navajo Lake. The predominant geologic formation is the San Jose Formation of Tertiary age, which underlies surface soils and is often exposed (Dane and Bachman, 1965). Deposits of Quaternary alluvial and aeolian sands occur near the surface of the area, especially near streams and washes.

Cretaceous and Tertiary sandstones, as well as Quaternary alluvial deposits, serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). In most of the proposed area, the San Jose Formation lies at the surface and overlies the Nacimiento Formation. Thickness of the San Jose ranges from 200 to 2700 feet, thickening from west to east across the region of interest (Stone et al., 1983). Aquifers within the coarser and continuous sandstone bodies of the San Jose Formation are between 0 and 2700' deep in this section of the basin (Stone et al., 1983). Groundwater within these aquifers flows regionally to the southwest, toward the San Juan River. More locally, groundwater flow is controlled by Navajo Lake. Little specific hydrogeologic data is available for the San Jose Formation system, but "numerous wells and springs used for stock and domestic supplies" draw their water from the San Jose Formation (Stone et al., 1983).

The prominent soil types at the proposed site are entisols and aridisols, which are defined as soils exhibiting little to no profile development (www.emnrd.state.nm.us). Soils are basically unaltered from their parent rock. Miles of arroyos, washes and intermittent streams exist as part of the drainage network towards the San Juan River. These features often cut into soil and other unconsolidated materials, contributing to sedimentation downstream. The sudden influx of water from storm events easily erodes the soils that cover the area and prohibits effective recharge to the underlying aquifers.

Regional weather further prohibits active recharge. The climate is arid, averaging almost 13 inches of rainfall annually. As is typical of the southwestern United States monsoonal weather patterns, most precipitation falls from July through September. The heaviest rainfall occurs in the summer in isolated, intense cloudbursts. September through June is relatively dry. Snow generally falls from December to mid-February and averages less than one-half inch in depth. The most active recharge occurs during the winter snowmelt periods from the upper elevations (Western Regional Climate Center www.wrcc.dri.edu).

The predominant vegetation is sagebrush and grasses with a more restricted pinon-juniper association (Dick-Peddie, 1993).

Site Specific Hydrogeology

Depth to groundwater at the site is estimated to be greater than 100'. This estimation is based on data from Stone and others (1983), the USGS Groundwater Atlas of the United States and depth to groundwater data published on the New Mexico State Engineer's iWaters Database website. Local topography, proximity to adjacent channels and springs and observations made during a site visit are also taken into consideration.

The region is dominated by Navajo Lake and its associated canyons and gullies as evidenced on the attached topographic map and aerial photo. Relatively large, flat-topped mesas composed of thick sandstone sequences surround the perimeter of the lake and are often over 200 feet higher in elevation than the lake. Canyons and gullies erode into the sandstone and are filled with alluvium. This particular site is located on a mesa top 4597 feet north of the main channel of Navajo Lake, and is over 270 feet higher in elevation than the surface of the lake water. The Los Pinos arm of the lake is approximately 1.10 miles to the west of the site. The massive sandstone outcrops, upon which the site in question is situated, is part of the San Jose Formation. Beds of water-yielding sandstone are present in the San Jose Formation, which are fluvial in origin and are interbedded with mudstone, siltstone & shale. Porous sandstones form the principal aquifers in the area, while relatively impermeable shales and mudstones form confining units between the aquifers (Stone et al., 1983). "Extensive intertonguing" of different members of this formation is reported (Stone et al, 1983). Local aquifers exist within the San Jose Formation at depths greater than 100 feet and thicknesses of the aquifer can be up to several hundred feet (USGS, Groundwater Atlas of the US; Stone et al, 1983).

Depth to groundwater data is extremely limited in this region. Groundwater data available from the NM State Engineer's iWaters Database for wells near the below grade tank are attached and are plotted on the iWaters Groundwater Data Map. The nearest permitted well lies 1.11 miles to the north (SJ 03355). The water is used for livestock watering, as are many others in the surrounding area. Depth to groundwater in the permitted water well is recorded as 470 feet. Other wells located near Navajo Lake at similar elevations to the site in question contain groundwater at depths in excess of 400 feet.

The elevation difference of over 200 feet between the site and Navajo Lake, the lack of other surface water features and groundwater depths greater than 400 feet deep in nearby permitted water wells is enough to suggest that groundwater at the site is greater than 100 feet.

References

Dane, C.H. and Bachman, G. O., 1965, Geologic Map of New Mexico: U.S. Geological Survey, 1 sheet, scale 1:500,000.

Dick-Peddie, W.A., 1993, New Mexico Vegetation – Past, Present and Future: Albuquerque, New Mexico, University of New Mexico Press, 244 p.

Stone, W.J., Lyford, F. P., Frenzel, P.F., Mizell, N.H. and Padgett, E.T., 1983, Hydrogeology and water resources of the San Juan Basin, New Mexico: HR-6 New Mexico Bureau of Geology and Mineral Resources Hydrology Report 6.

USGS, Groundwater Atlas of the United States: Arizona, Colorado, New Mexico, Utah, HA 730-C: (<http://www.pubs.usgs.gov>).

Western Region Climate Center, 2008, New Mexico climate summaries: Desert Research Institute at <http://www.wrcc.dri.edu/summary/climsmnm.html>.

New Mexico Energy, Minerals and Natural Resources Department, www.emnrd.state.nm.us

New Mexico Office of the State Engineer
POD Reports and Downloads

WATER COLUMN REPORT 12/05/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)												
(quarters are biggest to smallest)												
POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>SJ 03685</u> POD1	31N	06W	07	1	2	4				460	310	150
<u>SJ 00011</u>	31N	06W	32							610		
<u>SJ 03649</u>	31N	07W	02	1		4				600	300	300
<u>SJ 03426</u>	31N	07W	14	1	2	4				540	420	120
<u>SJ 03355</u>	31N	07W	28	1	1	1				570	470	100
<u>SJ 03117</u>	32N	07W	07	2	2	2				240		
<u>SJ 01612</u>	32N	07W	34	3						800		

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

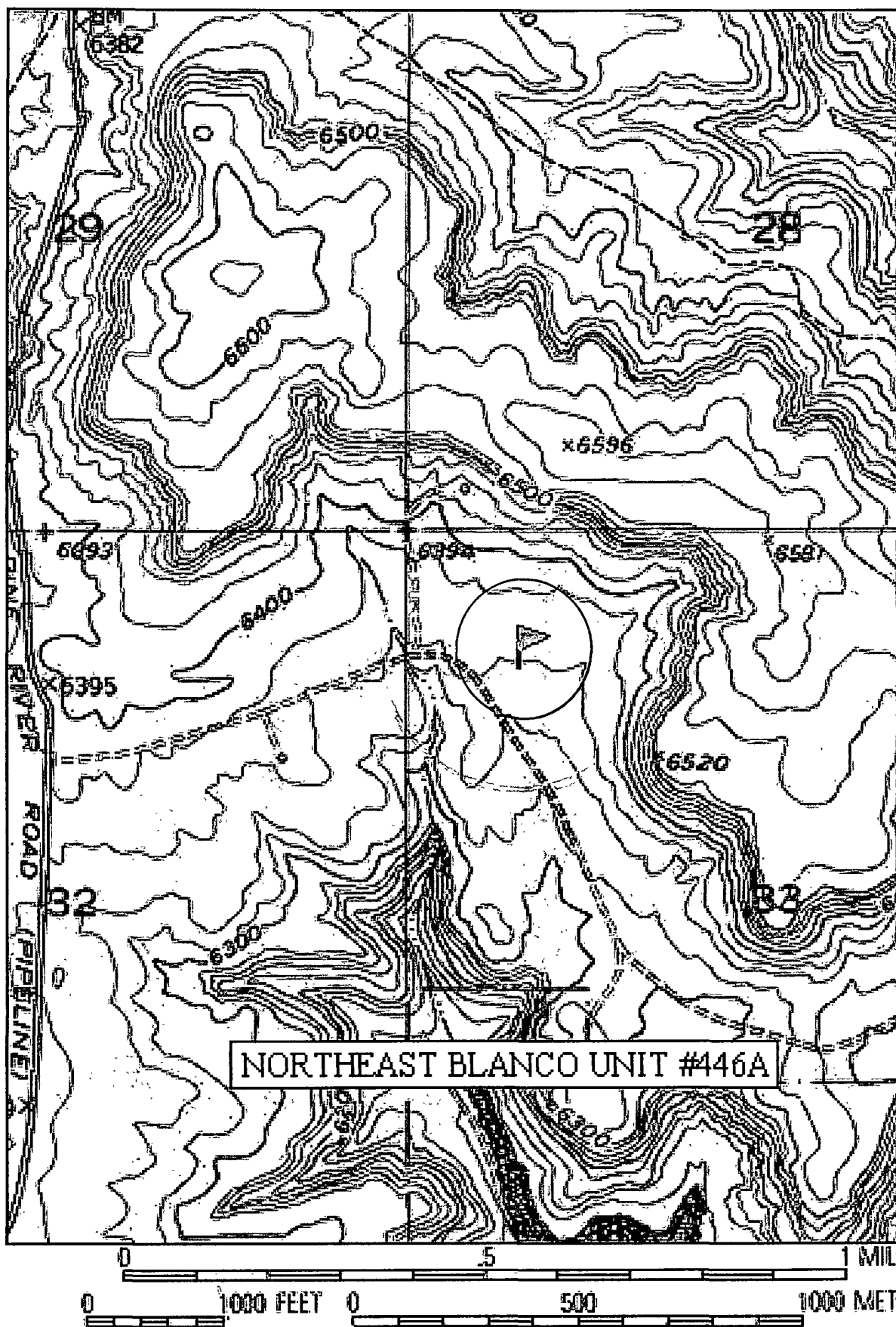
WATER COLUMN REPORT 12/11/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

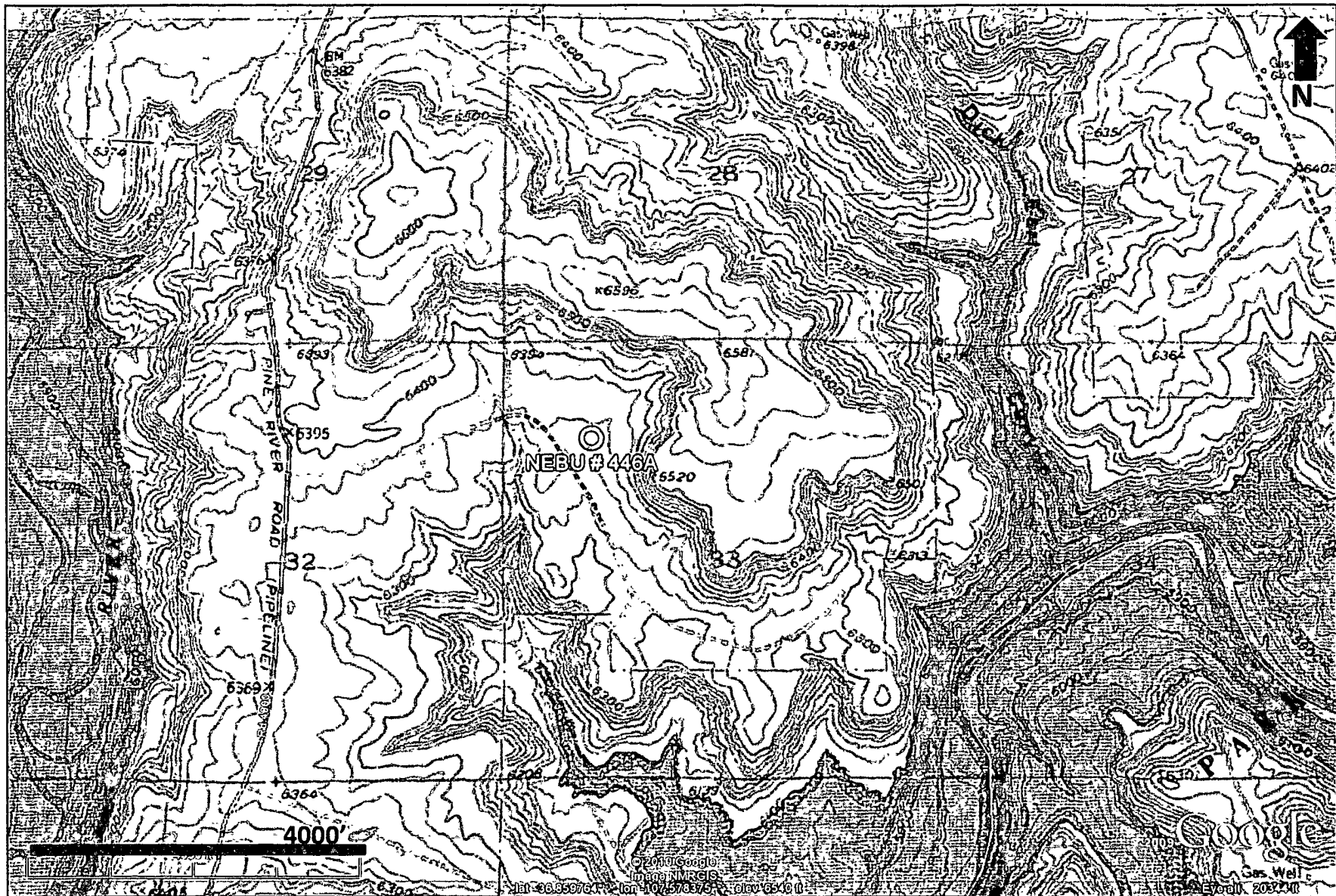
POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>SJ 01167</u>	31N	08W	24	4	4	3				465	390	75
<u>SJ 03306</u>	31N	08W	25	1	4	4				600	500	100
<u>SJ 01822</u>	31N	08W	25	2	2	2				550	500	50
<u>SJ 00012</u>	31N	08W	30	2						1021	475	546
<u>SJ 00198</u>	31N	08W	32	3	3	4				2003		

Record Count: 5

1000' & 500' BUFFERS



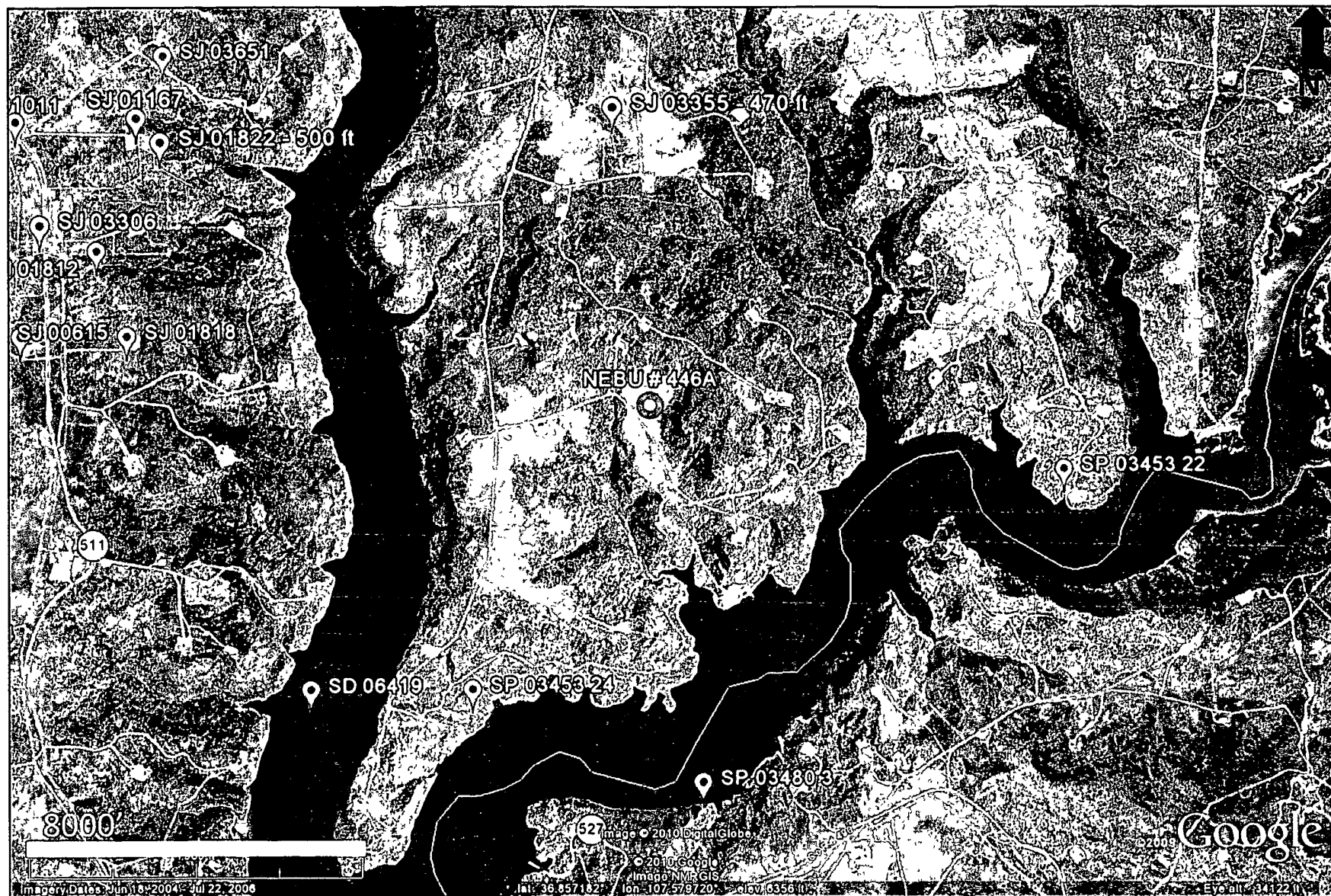
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com)



LT Environmental
2243 Main Ave. Ste. 3
Durango, CO 81301

NEBU #446A
T30N, R07W, S33D
San Juan County, NM

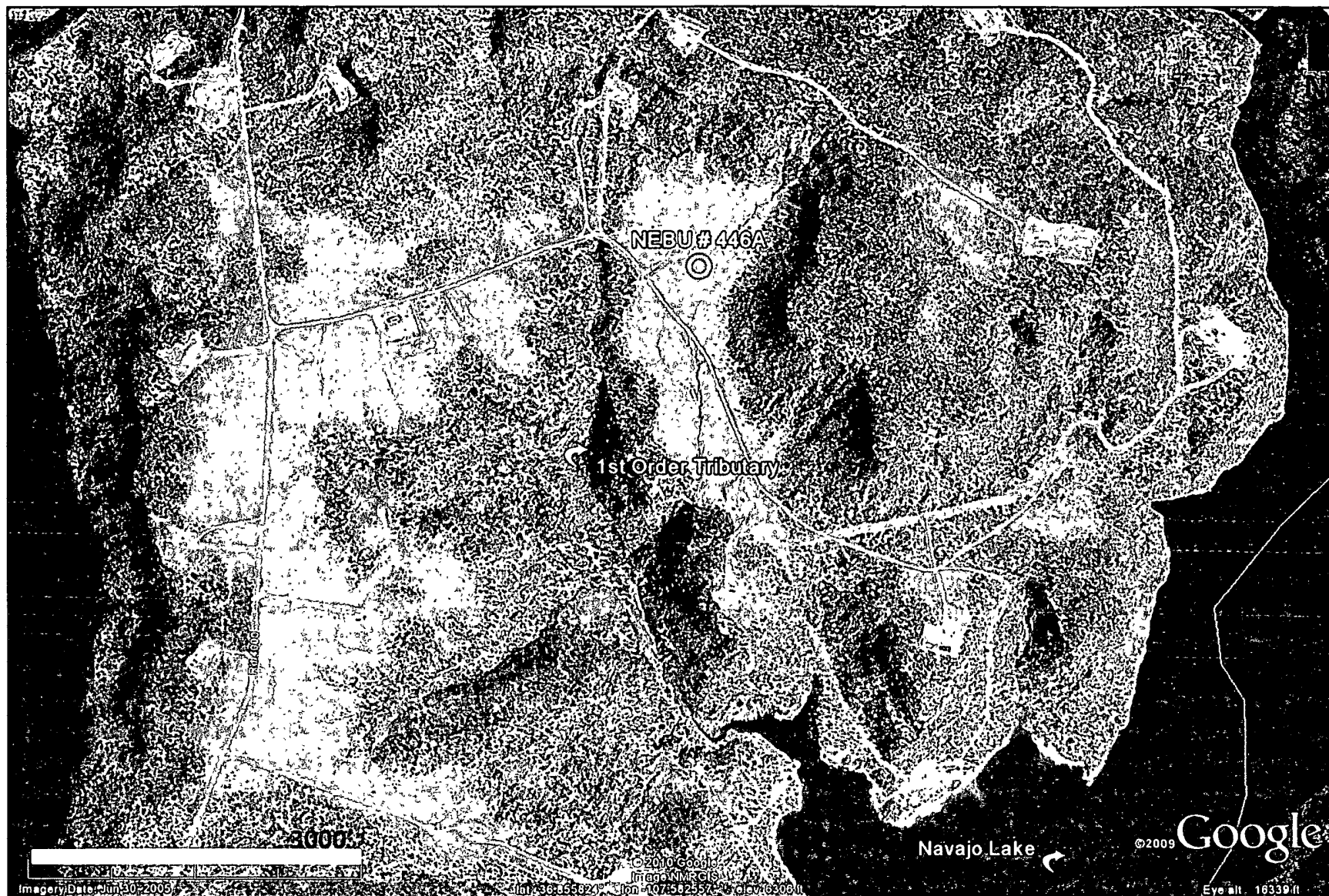
Topographic Map



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iWaters Groundwater
Data Map



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San Juan County, NM

Aerial Photograph

NEBU #446A WETLANDS MAP



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Scale: 1:60,000

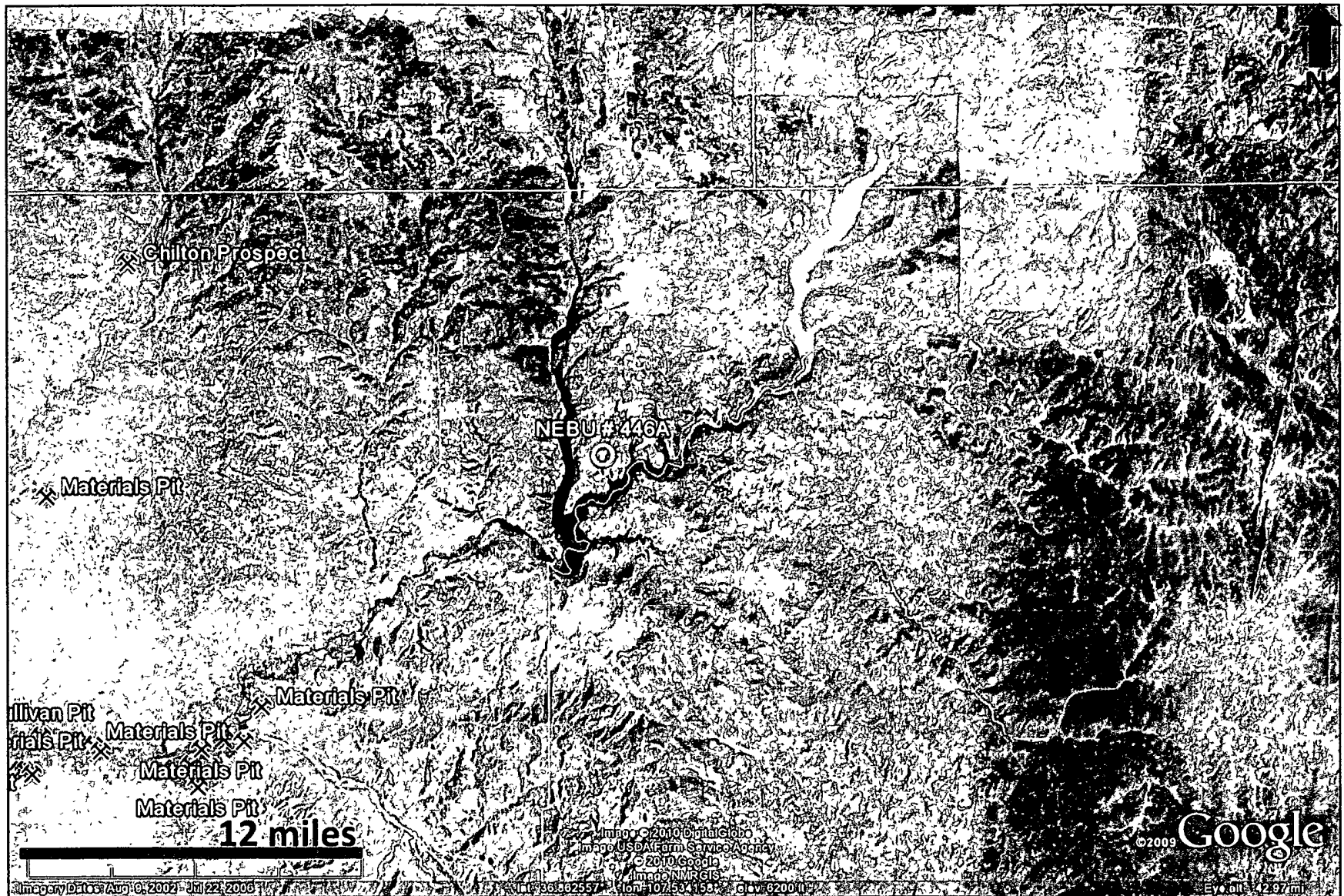
Map center: 36° 55' 19" N, 107° 30' 12" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

I certify the above observations are true and accurate to the best of my knowledge.

Signature: Mike Pippin Date: 3/22/10

Printed Name: MIKE PIPPIN Title: _____



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Durango, CO 81301

NEBU #446A
T30N, R07W, S33D
San Juan County, NM

Mines, Mills, and
Quarries Map

Devon Energy Production Company, L.P.
San Juan Basin
Temporary Pit Design and Construction Plan

In accordance with Rule 19.15.17.11 NMAC the following information describes the design and construction of temporary pits on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

General Plan

- 1) Devon will design and construct a temporary pit to contain liquids and solids as well as prevent contamination of fresh water and protect public health and the environment.
- 2) Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- 3) Devon will post a well sign, in compliance with 19.15.3.103 NMAC, on the well site prior to construction of the temporary pit. The sign will list the Operator on record as the operator, the location of the well site by unit letter, section, township, range, and emergency telephone numbers.
- 4) Devon will construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes.
- 5) Devon shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.
- 6) Pit walls will be walked down by a crawler type tractor following construction.
- 7) All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- 8) Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.
- 9) All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.
- 10) Devon will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used when possible. Devon will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. Devon will minimize the number of field seams in corners and irregularly shaped areas.
- 11) The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 12) The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some areas.
- 13) The volume of the pit shall not exceed 10 acre-feet, including freeboard.
- 14) Temporary blow pits will be constructed to allow gravity flow to discharge into lined drill pit.
- 15) Devon will not allow freestanding liquids to remain on the unlined portion of a temporary blow pit.

Devon Energy Production Company, L.P.
San Juan Basin
Temporary Pit Maintenance and Operating Plan

In accordance with Rule 19.15.17 NMAC the following information describes the maintenance and operation of temporary pits on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

General Plan

- 1) Devon will operate and maintain a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
 - 2) Devon will conserve drilling fluids by transferring liquids to pits ahead of the rigs whenever possible. All other drilling fluids will be disposed at Basin Disposal Inc., permit # NM-01-005.
 - 3) Devon will not discharge or store any hazardous waste in any temporary pit.
 - 4) If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface, then Devon shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner.
 - 5) If a leak develops below the liquid's level, Devon shall remove all liquids above the damaged liner within 48 hours and repair or replace the liner. Devon shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels Devon shall notify the Aztec Division office as required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief.
 - 6) The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
 - 7) The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.
 - 8) Devon shall immediately remove any visible layer of oil from the surface of the temporary pit after cessation of a drilling or workover operation. Oil absorbent booms will be utilized to contain and remove oil from the pit's surface. An oil absorbent boom will be stored on-site until closure of the pit.
 - 9) Only fluids generated during the drilling or workover process may be discharged into a temporary pit.
 - 10) Devon will maintain the temporary pit free of miscellaneous solid waste or debris.
 - 11) During drilling or workover operations, Devon will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged and logs maintained for review. Devon will file this log with the Aztec Division office upon closure of the pit.
 - 12) After drilling or workover operations, Devon will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at Devon's office and will be filed with the Aztec Division office upon closure of the pit.
 - 13) Devon shall maintain at least two feet of freeboard for a temporary pit.
 - 14) Devon shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling rig.
 - 15) Devon shall remove all free liquids from a cavitation pit within 48 hours after completing cavitation. Devon may request additional time to remove liquids from the Aztec Division office if it is not feasible to remove liquids within 48 hours.
-

Devon Energy Production Company, L.P.
San Juan Basin
Temporary Pit Closure Plan

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of temporary pits on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

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

- Details on Capping and Covering, where applicable
- Plot Plan (Pit Diagram)
- Inspection Logs
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with the appropriate County Clerk

General Plan

- 1) All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycled, reused, or reclaimed in a manner that the Aztec Division office approves.
- 2) The preferred method of closure for all temporary pits will be on-site, in-place burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3) The surface owner shall be notified of Devon's proposed closure plan using a means that provides proof of notice i.e., Certified Mail, return receipt requested or email when applicable.
- 4) Within 6 months of the Rig Off status occurring Devon will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5) Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally. The notification of closure will include the following:
 - Operators Name
 - Location by Unit Letter, Section, Township, and range. Well name and API number
- 6) Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at a licensed disposal facility.
- 7) Pit contents shall be mixed with non-waste containing, earthen material in order to achieve appropriate solidification. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8) A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and Haul. Disposal facility to be utilized should this method be required will be Envirotech, Permit No. NM01-0011.

Components	Test Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500 or Background

- 9) Upon completion of solidification and testing, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 10) Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Rep-shaping will include drainage control, ponding prevention, and erosion prevention. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 11) Notification will be sent to OCD when the reclaimed area is seeded.
- 12) Devon shall seed the disturbed areas during the first growing season after the operator closes the pit. Seeding will be accomplished via broadcast or drilling when topography permits. BLM of Forest Service stipulated seed mixes will be used on all Federal Lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.
- 13) Devon shall mark the center of an on-site burial with a steel plate. The steel marker shall not be less than four inches in diameter and shall be cemented in a three-foot deep hole at a minimum. The marker will be flush with the ground for safety as well as easy access on the well pad. The marker will include a threaded collar to be used for future abandonment. On the top of the marker a steel 12" plate will mark the on-site burial of the temporary pit. The plate itself will be easily removable where a 4' riser can then be installed into the top of the collar and welded marking the pits location once all wells on the pad have been abandoned. The operator name, lease name and well number with location, including the unit letter, section, township and range, and that the plate designates an on-site burial location shall be stamped or otherwise permanently engraved into the metal of the steel plate.
- 14) A C-105 shall be used to report the exact location of the on-site burial with the Aztec Division office.
- 15) A deed notice identifying the exact location of the on-site burial with the appropriate county clerk where the on-site burial occurs.

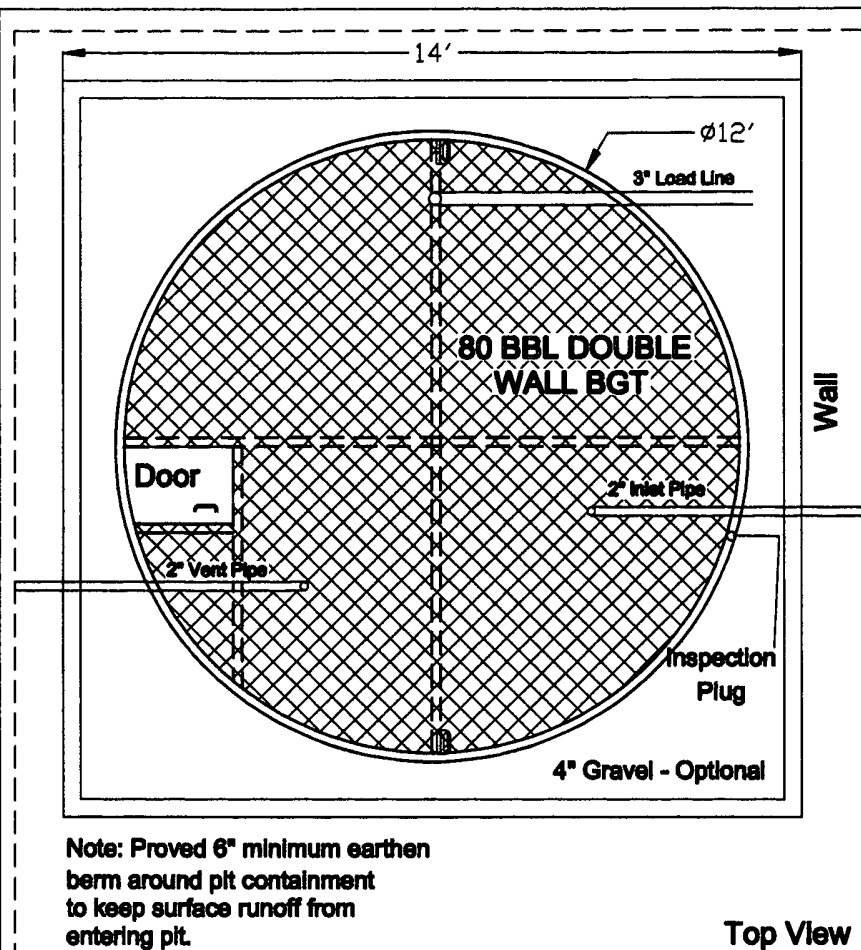
**PROPOSED PIT/BELOW GROUND TANK LOCATION
SITE VISIT OBSERVATIONS**

GROUNDWATER	
Estimate depth to groundwater (if possible)	<input type="checkbox"/> less than 50 feet <input type="checkbox"/> between 50 and 100 feet <input checked="" type="checkbox"/> greater than 100 feet <input type="checkbox"/> unknown
Comments: _____	
SURFACE WATER	
Distance to continuously flowing watercourse	<input type="checkbox"/> less than 300 feet <input checked="" type="checkbox"/> greater than 300 feet
Name of Water Feature: <u>1.10 miles E of Navajo Lake; 4597' north of Navajo Lake</u>	
Distance to other <i>significant</i> watercourse, lakebed, sinkhole or playa lake	<input type="checkbox"/> less than 200 feet <input checked="" type="checkbox"/> greater than 200 feet
Name of Water Feature (if known): <u>None observed</u>	
Type of Water Feature: _____	
Distance to wetlands (look for clusters of cottonwoods, green shrubbery, reeds)	<input type="checkbox"/> less than 500 feet <input checked="" type="checkbox"/> greater than 500 feet
Comments: <u>None observed</u>	
PUBLIC FACILITIES	
Distance to permanent residence, school, hospital, institution or church	<input type="checkbox"/> less than 300 feet <input checked="" type="checkbox"/> greater than 300 feet
Distance to private or domestic fresh water well or spring (look for windmills, pump houses or small structures with power running to them)	<input type="checkbox"/> less than 500 feet <input checked="" type="checkbox"/> greater than 500 feet
Distance to freshwater well or spring (look for clusters of cottonwoods, green shrubbery, reeds)	<input type="checkbox"/> less than 1000 feet <input checked="" type="checkbox"/> greater than 1000 feet
Is site located within an incorporated municipal boundary or municipal fresh water field?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Comments: <u>No facilities nearby</u>	
SITE STABILITY	
Are there any known mines in the vicinity?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If yes, how close? _____	
Mine Name: _____	
Mine Type: _____	
Does the site appear to be unstable? (any loose rocks, boulders, evidence of landslide)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Comments: _____	

Additional Comments:

I certify the above observations are true and accurate to the best of my knowledge.

Signature: Mike Pippin Date: 3/22/10
Printed Name: MIKE PIPPIN Title: _____



Note: Proved 6" minimum earthen berm around pit containment to keep surface runoff from entering pit.

Note: Outer edge of BGT will be left open and unobstructed to allow for visual inspection of secondary containment for evidence of leaks.

DESIGN INFORMATION:

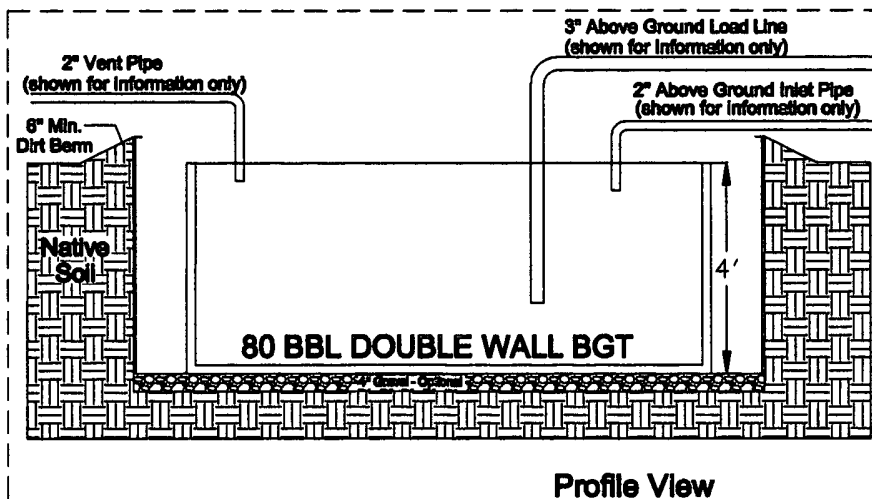
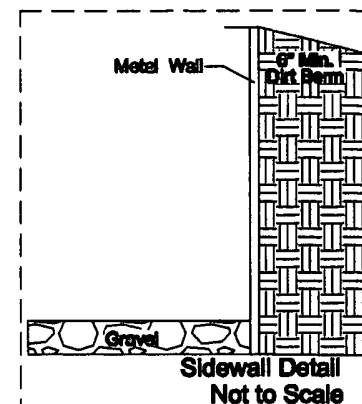
The tank will have an expanded metal top per Devon site specific design requirements, built by tank supplier.

Base will be level and free of rocks, debris, sharp edges, or irregularities prior to sand placement.

Visual inspection can be done on the BGT.

1 foot free board.

TANK A36 CARBON STEEL
3/16" sides
1/4" bottom



devon

Typical Design
80 BBL DOUBLE WALL BGT

NEBU

Prepared by:

HOPKINS MAP SERVICE

P. O. BOX 536

FARMINGTON, NM 87489

Devon Energy Production Company, L.P.
San Juan Basin
Below Grade Tank Design and Construction Plan

In accordance with Rule 19.15 17 NMAC the following information describes the design and construction of below grade tanks on Devon Energy Production Company, L P. locations. This is Devon Energy's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan

- 1) Devon will design and construct a BGT to contain liquids to prevent contamination of fresh water and protect public health and the environment
- 2) Devon will post a well sign, in compliance with 19.15 16.8 NMAC, on the existing well site operated by Devon Energy where the existing BGT is located. The sign will list the operator on record as the operator, the location of the well site by unit letter, section, township, range, and emergency telephone numbers.
- 3) Devon is requesting approval of an alternative fencing to be used on BGT locations. BGT locations will be fenced utilizing 48" steel mesh field-fence (hog wire) with pipe railing along the top. A 6' chain link fence will be utilized around the well pad if the well site is within a city limit or 1/4 mile of a permanent residence, school, hospital, institution, or church. BGTs located within 1000' of a permanent residence, school, hospital, institution, or church will be fenced by a 6' chain link fence with at least 2 strands of barbed wire at the top. All gates associated with BGTs will remain closed when responsible individuals are not on site.
- 4) Devon will construct BGT with an expanded metal covering or solid vaulted top on the top of the BGT.
- 5) Devon shall ensure that BGTs are constructed of materials resistant to the BGT's particular contents and resistant to damage from sunlight. Tanks will be constructed of A36 carbon steel with 3/16" sides and 1/4" bottom (see attached drawing).
- 6) Devon shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the tank bottom.
- 7) Devon shall construct a BGT to prevent overflow and the collection of surface water run-on. Devon Energy's free board is set at 1 foot from the top of the tank. We have berms set to prevent any surface water run-on.
- 8) Devon will construct and use BGT's having double walls. The BGT side walls will be open with a plug for visual inspection for leaks. The bottom shall be elevated with the use of gravel to raise the BGT above the underlying ground surface to prevent damage to the bottom of the BGT.
- 9) The general specification for design and construction are attached in the Devon document.

Devon Energy Production Company, L.P.
San Juan Basin
Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17 NMAC the following information describes the maintenance and operation of below grade tanks on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all below grade tanks. A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan

- 1) Devon will operate and maintain a BGT to contain liquids and solids as well as prevent contamination of fresh water to protect public health and the environment. Fluid levels will be monitored weekly and high levels will be removed as necessary. Monthly inspections will be conducted to monitor integrity of BGT systems.
- 2) Devon shall not allow a BGT to overflow or allow surface water run-on to enter the BGT. See attached drawing of vault design and placement of diversion berms.
- 3) Devon shall continuously remove any visible or measurable layer of oil from the fluid surface of a BGT in an effort to prevent significant accumulation of oil overtime.
- 4) Devon shall inspect the BGT at least once a month and maintain a written record of each inspection for five years. Monthly inspections will consist of documenting the following: (see attached template)
 - Well name
 - Section, Township, Range
 - Latitude longitude coordinates
 - Signature of inspector
 - Inspection date
 - Plug in place
 - Outer side wall ok
 - Fluid between walls
 - Measurable quantity oil
 - Comments
- 5) Devon shall maintain 1 foot free board to prevent overtopping of the BGT.
- 6) Devon will not discharge into or store any hazardous waste in any BGT.
- 7) If a BGT develops a leak or if any penetration of a BGT below the liquid surface on the outer wall, Devon will remove all liquids above the damage or leak within 48 hours, notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the BGT.

Devon Energy Production Company, L.P.

San Juan Basin

Below Grade Tank Closure Plan

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of a below grade tank on Devon Energy Production Company, L.P. locations. This is Devon Energy's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan

- 1) Devon shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- 2) Devon will close a BGT that does not meet the requirements of Paragraphs 1-4 of the Subsection I of 19.15.17.11 NMAC or is not included in Paragraph 5 of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofitted to comply with Paragraphs 1-4 of the Subsection I of the 19.15.17.11 NMAC.
- 3) Devon shall close a permitted BGT within 60 days of cessation of the BGT operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The closure report will be filed on C-144.
- 4) 72 Hour notice of Closure will be given via email, or verbally to the Aztec Division office prior to any closure activity. The notification of closure will include the following:
 - Operator's Name
 - Location by Unit Letter, Section, Township, and Range. Well name and API number

The Surface owner shall be notified prior to the implementation of any closure operations of BGT's as per the approved closure plan using certified mail, return receipt requested.

- 5) Devon shall remove liquids and sludge from a BGT prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility.
 - Envirotech Permit No. NM01-0011 and IEI Permit No. NM 01-0010B
 - Soil contamination by exempt petroleum hydrocarbons
 - Produced sand, pit sludge and contaminated bottoms from storage of exempt wastes
 - Basin Disposal Permit No. NM01-005
 - Produced water
 - Middle Mesa SWD#1 30-045-27341
 - Produced water
 - Middle Mesa SWD #2 30-045-28553
 - Produced water
 - Pump Mesa SWD 30-045-27340
 - Produced water
 - Sims Mesa SWD 30-039-24236
 - Produced water
- 6) Devon will obtain prior approval from the OCD to dispose, recycle, reuse or reclaim the BGT and provide documentation of the final disposition of the BGT in the closure report.
- 7) If there is any on-site equipment associated with a BGT, then Devon shall remove the equipment, unless the equipment is required for some other purpose.
- 8) Devon will test the soils beneath the BGT to determine whether a release has occurred. At a minimum a five point composite soil sample will be taken. As well as notifying the Aztec District office of the results on form C-141. Devon Energy will take separate individual discrete soil samples from any area that is wet, discolored or showing any other visible

signs of release. All samples will be tested for the items listed in the chart below. Should it be determined that a release has occurred Devon shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.

Components	Test Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.1	250 or Background

- 9) If the sampling results demonstrate that there has been no release or that a release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then Devon shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division prescribed soil cover; re-contour and re-vegetate the site.
- 10) Re-contouring of the location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control to prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface fitting the natural landscape.
- 11) A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. Soil cover will be constructed to the site's existing grade and ponding of water and erosion of the cover material will be prevented with drainage control, natural drainages and silt traps where needed.
- 12) Devon shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling when topography permits. BLM of Forest Service stipulated seed mixes will be used on all Federal Lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Devon Energy will notify the Division of Seeding and Revegetation when we have seeded and when we have achieved revegetation. Repeat seeding or planting will be continued until successful vegetative growth occurs.
- 13) All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the BGT. Closure report will be filed on C-144 and incorporate the following:
 - Proof of the closure notice to the division and the surface owner
 - Inspection Reports
 - Sampling Results
 - Disposal facility and permit/API numbers
 - Soil backfilling and cover installation
 - Re-vegetation application rates and reseeding techniques (or approved alternative to re-vegetation requirements if applicable)
 - Photo documentation of the site reclamation