

EPWM - _____3_____

**C-144
BGT
PERMIT**

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.

**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: <u>Maralex Disposal, LLC</u>	OGRID #: <u>193838</u>
Address: <u>P.O. Box 338, Ignacio, CO 81137</u>	
Facility or well name: <u>Centerpoint SWD #1</u>	
API Number: <u>30-045-33464</u>	OCD Permit Number: <u>ERWM-003</u>
U/L or Qtr/Qtr <u>P</u> Section <u>24</u> Township <u>31N</u> Range <u>11W</u> County: <u>San Juan</u>	
Center of Proposed Design: Latitude <u>36.8791669703</u> Longitude <u>107.935481229</u> NAD: <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983	
Surface Owner: <input type="checkbox"/> Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment	
2.	
<input type="checkbox"/> Pit: Subsection F or G of 19.15.17.11 NMAC	
Temporary: <input type="checkbox"/> Drilling <input type="checkbox"/> Workover	
<input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
<input type="checkbox"/> String-Reinforced	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____	
3.	
<input type="checkbox"/> Closed-loop System: Subsection H of 19.15.17.11 NMAC	
Type of Operation: <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)	
<input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____	
4.	
<input checked="" type="checkbox"/> Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume: <u>280</u> bbl Type of fluid: <u>Produced Water</u>	Existing tank is below-grade cement w/ 1' berm.
Tank Construction material: <u>concrete</u>	Looking to modify w/steel tank w/in cement.
<input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
<input type="checkbox"/> Visible sidewalls and liner <input type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other _____	
Liner type: Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
5.	
<input type="checkbox"/> Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	

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 Entrance gate w/ barbed wire fence along Route 550

7.

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

- ☐ Screen ☒ Netting ☒ Other concrete walls w/ expanded metal roof.
- ☐ 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<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. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to permanent pits</i>) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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	<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

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

☐ Yes ☐ No
☐ 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

☐ 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 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.

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

☐ Yes ☐ 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

☐ 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

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

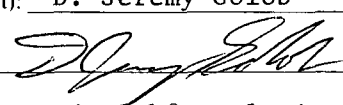
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ 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): D. Jeremy GolobTitle: Sr. Petroleum EngineerSignature: Date: 8/17/09e-mail address: jgolob@maralexinc.comTelephone: (970) 563-4000

20.

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

OCD Representative Signature: Approval Date: 9/25/09Title: Environmental EngineerOCD Permit Number: EPWM-003

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: _____

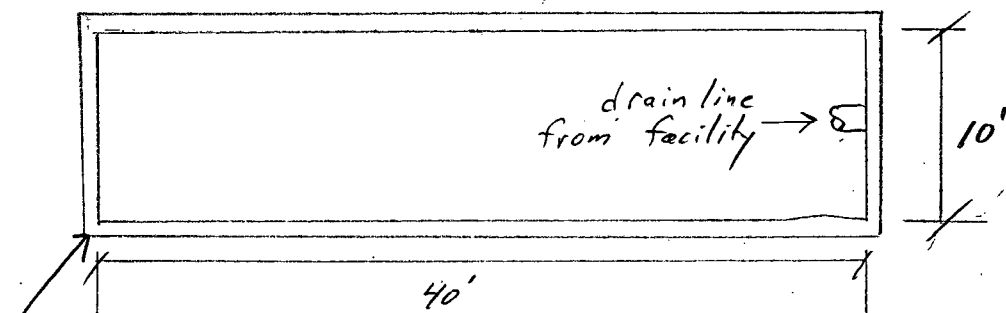
e-mail address: _____ Telephone: _____

Maralex Disposal, LLC
Center Point SWD#1
Unit Letter P, 856' FSL & 738' FEL
Section 24, T31N, R11W, San Juan County

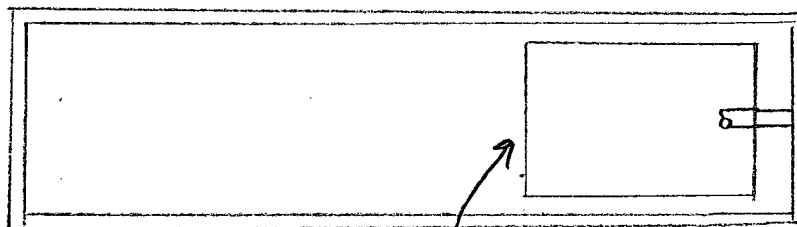
Center Point Sub-Grade Tank

Background:

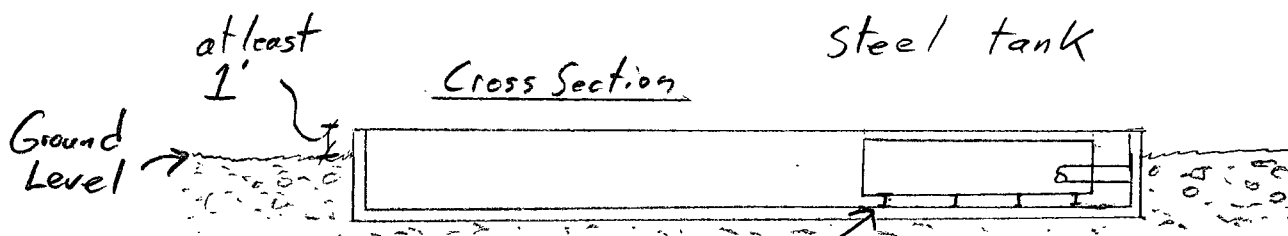
A concrete sub-grade tank was built near the Center Point SWD #1 injection facility per a lease agreement with the surface land owner. The purpose of the tank is to capture any produced water that might be accidentally spilled inside the building during water truck offloading. A welded steel tank will be constructed and placed inside of the concrete tank in order to bring the tank into compliance with the NMOCD pit rules.

Existing

40' x 10' x 5' mono-pour concrete tank
with expanded metal roof

Proposed

12' x 7' x 4' welded
steel tank

Cross Section

Notes: - Expanded metal roof
will remain intact

- Steel tank volume is ~ 60 bbls

- Concrete used as secondary
containment and serves
to keep out wildlife, etc.

tank supported
6" above concrete
floor for leak
detection.

Maralex Disposal, LLC
Application for Below-Grade Tank
May 11, 2009
Item 11

The APD for the Centerpoint SWD was approved on November 9, 2005. The lease agreement with the landowner included a concrete pit with an expanded metal roof which was designed to capture any accidental spillage by the water trucks while offloading into the terminal building. The building floors are sloped toward drains that will feed into the tank. This request is to place a below-grade tank within the existing concrete pit. The tank will be lifted six inches off the bottom of the pit so that any leakage will be visible. The tank is being installed as further protection against spillage and seepage. With this design there will be no impact on the surrounding soils. The tank will be monitored daily and one foot of free-board will be maintained. Any liquids will be pumped back into the disposal well tank battery.

Maralex Disposal, LLC
Centerpoint SWD #1
SESE, 856' FSL & 738' FEL
Section 24, T31N, R11W, San Juan County

Item 11 – Hydrogeologic Report

The base water level in the area is estimated to be at 5760', based on the attached topographical map and contour maps. There are only two water wells registered in the SESE quarter, both having a depth of 40'. The ground level at one of the wells is 5800'. The elevation at the existing cement pit is 5780' and the bottom of the pit is 5776'. No water well should be impacted with the additional security of a below-grade tank within the cement pit.

Maralex Disposal, LLC
Centerpoint SWD #1
SESE, 856' FSL & 738' FEL
Section 24, T31N, R11W, San Juan County

Item 11 – Siting Criteria Compliance Demonstrations

1. Ground water is less than 50 feet below the bottom of the below-grade tank. Yes. Please see attached documentation regarding surrounding wells and the hydrogeologic report.
2. 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), unless the appropriate division district office approves an alternative distance based upon the operator's demonstration that surface and ground water will be protected. No. Please see topographical map and visual inspection certification.
3. Within 300 feet from a permanent residence, school, hospital, institution or church in existence at the time of initial application. No. Please see aerial map and visual inspection certification.
4. Within 500 feet of a private, domestic fresh water well or spring used by less than five households for domestic or stock watering purposes, or within 1000 feet of any other fresh water well or spring, in existence at the time of initial application. No. Please see water table map and aerial map and visual inspection certification. A visual inspection was performed on the two properties located within the 1000' radius with no wells observed.
5. 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, unless the municipality specifically approves. No. Please see water table map and visual inspection certification.
6. Within 500 feet of a wetland. No. Please see topographical map and visual inspection certification.
7. Within the area overlying a subsurface mine, unless the appropriate division district office specifically approves the proposed location based upon the operator's demonstration that the temporary pit's or below-grade tank's construction and use will not compromise the subsurface integrity. No. Please see attached subsurface mines map.
8. Within an unstable area, unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the temporary pit's or below-grade tank's integrity is not compromised. No. Please see attached topographical map.
9. Within a 100-year floodplain. No. Please see FIRM map.

Certification:

We, D. Jeremy Golob, Senior Engineer and Doris K. Ney, Production Technologist, visually inspected the Centerpoint SWD #1 located in San Juan County, New Mexico, at Unit Letter P, Section 24, Township 31N and Range 11W, and did not find any evidence to the contrary of what is stated above in Items 1 through 9.


D. Jeremy Golob, Senior Engineer


Doris K. Ney, Production Technologist

7/16/09
Date of Inspection



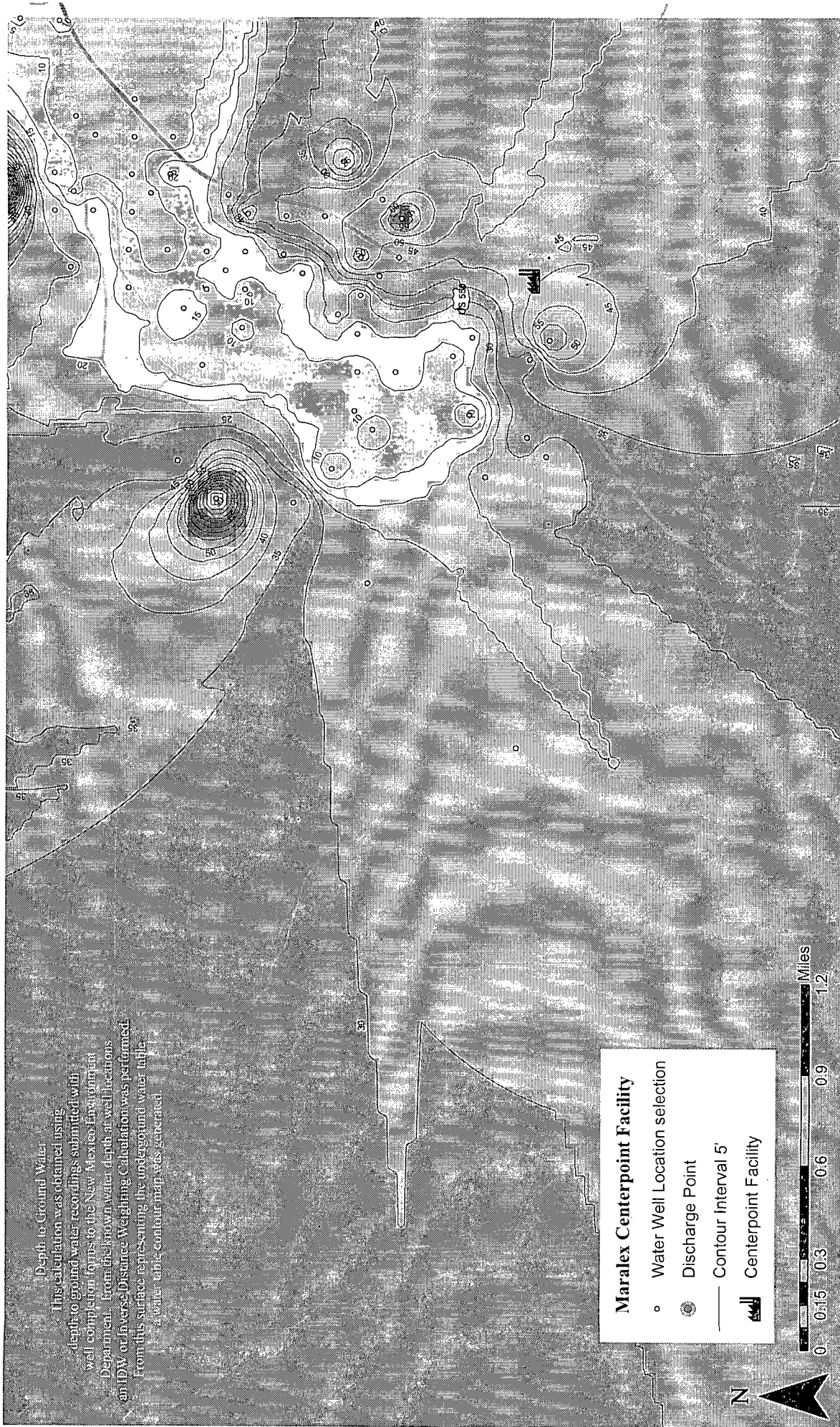
Estimated Water Table Depth and Contour Map for Maralex Centerpoint Facility

Depth to Ground Water

This calculation was obtained using depth to ground water recordings submitted with well completion forms to the New Mexico Environment Department. From the known water depth at well locations an IDW or Inverse Distance Weighting Calculation was performed. From this surface representing the underground water table a water table contour map was generated.

Maralex Centerpoint Facility

- Water Well Location selection
- Discharge Point
- Contour Interval 5'
- Centerpoint Facility



Record Count: 2

PLSS Search:

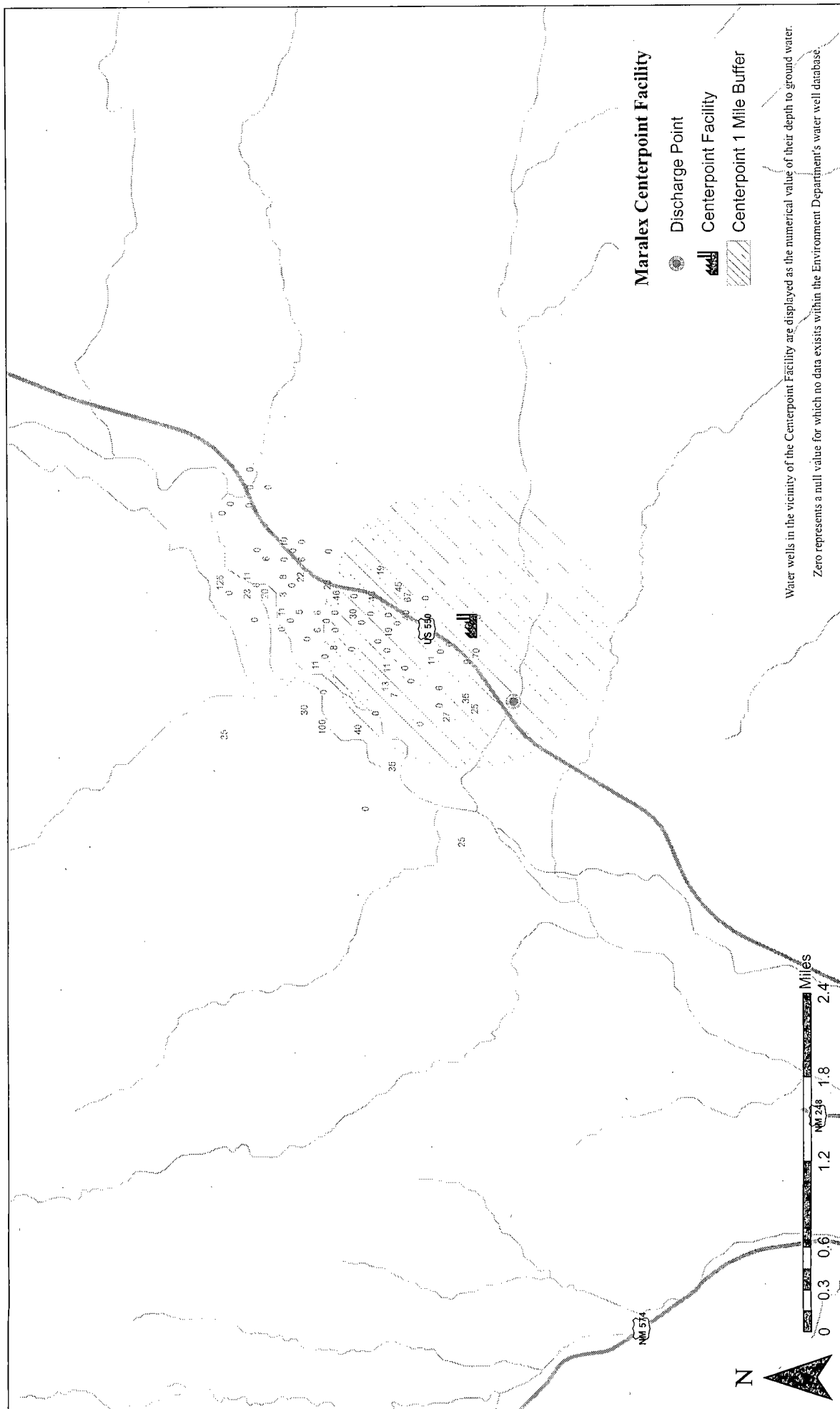
Q16: SE Q4: SE Section(s): 24 Township: 31N Range: 11W

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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Known Ground Water Depths Near Waralex Centerpoint Facility



Maralex Disposal, LLC
Centerpoint SWD #1
Unit Letter P, 856' FSL & 738' FEL
Section 24, T31N, R11W, San Juan County

Item 15 – Waste Evacuation and Removal Closure Plan

Protocols and Procedures – NMAC 19.15.17.13

The below-grade tank is not intended to be temporary as the SWD facility supports numerous producing gas wells in the San Juan Basin. The tank will support the disposal well that is located within a locked cement block building on location and that is accessed by various carriers using individual pass codes. The tank will be further assurance that any produced water that accidentally spills from the water trucks onto the cement floor of the facility will be captured through a floor drain into the tank. The tank will meet all requirements of 19.15.17.11 Subsection 1, Items (1) through (4) in that it will be constructed of welded steel set in a mono-pour concrete tank with an expanded metal roof. The accumulated liquids will be monitored on a monthly basis and trucked to an approved facility as required. The side walls will be open for visual inspection for leaks and the below-grade tank's bottom will be elevated a minimum of six inches above the underlying concrete surface so that any leakage will be easily visible. At such time that the SWD facility permanently ceases operations the below-grade tank will be closed within 60 days of that date. Should it be determined there is eminent danger and the Aztec NMOCD agrees closure is required, the below-grade will be closed according to the timeframe directed by the Aztec NMOCD. Any sludge found in the bottom of the tank will be removed to the Envirotech Disposal Facility or a similarly approved location. Likewise, prior to the removal of the tank, any produced water will be injected back into the Centerpoint SWD #1 facility or a similarly approved location. Maralex will obtain approval from the Aztec NMOCD regarding disposition of the steel tank as well as the concrete tank. Any other on-site equipment associated with the below-grade tank shall also be removed, unless the equipment is required for some other purpose. The floor drain leading from the SWD building to the tank shall be plugged with concrete slurry so that no leakage can occur into the surrounding earth.

Maralex shall notify the surface owner by certified mail, return receipt requested, that it plans to close the below-grade tank or where it has approval for on-site closure. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records will be sufficient to demonstrate compliance with this requirement.

Maralex shall notify the Aztec NMOCD at least 72 hours but not more than one week, prior to any closure operation. The notice shall include the operator's name (Maralex Disposal, LLC), and location of the site, to include the unit letter, section, township, range and the well name and API number if the SWD is included in the closure.

Confirmation Sampling Plan – NMAC 19.15.17.13 Subsection E-4

Upon closure, Maralex shall test the soils beneath the below-grade tank to determine whether a release has occurred. Maralex shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. Maralex shall notify the division of its results on form C-141.

If Maralex Disposal, LLC or the Aztec NMOCD determines that a release has occurred, then Maralex shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.

If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then Maralex shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

Disposal Facility Name and Permit Number

Free liquids - Center Point SWD #1, API 30-045-33464

Sludge – Envirotech, Permit Number NM1-0011

Soil Backfill and Cover Design Specifications – NMAC 19.15.17.13 Subsection H

This below-grade tank is intended to be long term; however, at such time that the SWD is closed and the below-grade tank is removed, the soil cover will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. Maralex will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

Re-vegetation Plan – NMAC 19.15.17.13 Subsection I

At such time that the below-grade tank is reclaimed, Maralex will re-seed the area by drilling on the contour whenever practical or by other division-approved methods. Maralex will obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) 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. During the two growing seasons that prove viability, there will be no artificial irrigation of the vegetation. Maralex will repeat this process until it successfully achieves the required vegetative cover.

Maralex Disposal, LLC shall notify the Aztec NMOCD when it has seeded or planted and when it successfully achieves re-vegetation.

Site Reclamation Plan – NMAC 19.15.17.13 Subsection G

At such time that the below-grade tank is reclaimed, Maralex will return the area to a safe and stable condition that blends with the surrounding undisturbed area.

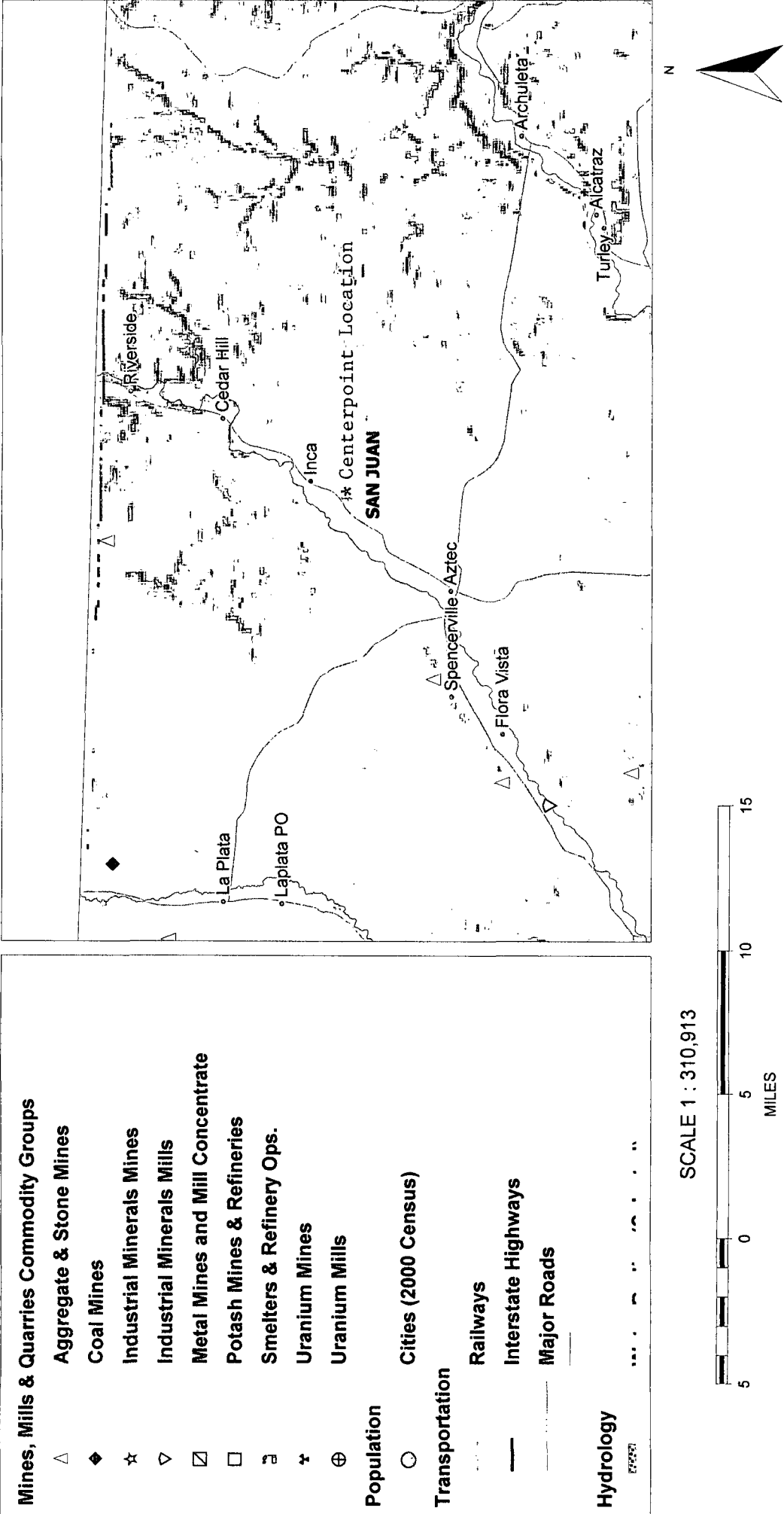
Within 60 days of closure completion, Maralex shall submit a closure report on Form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan and details on back-filling, capping and covering, where applicable. Maralex shall certify that all information in the report and attachments are correct and that Maralex has complied with all applicable closure requirements and conditions specified in the approved closure plan.

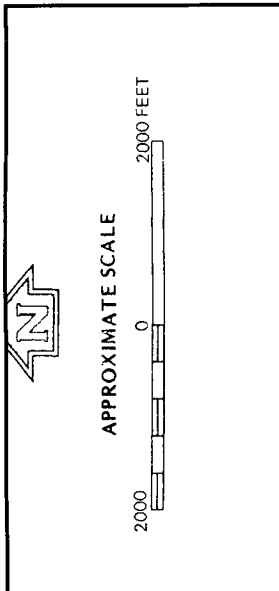
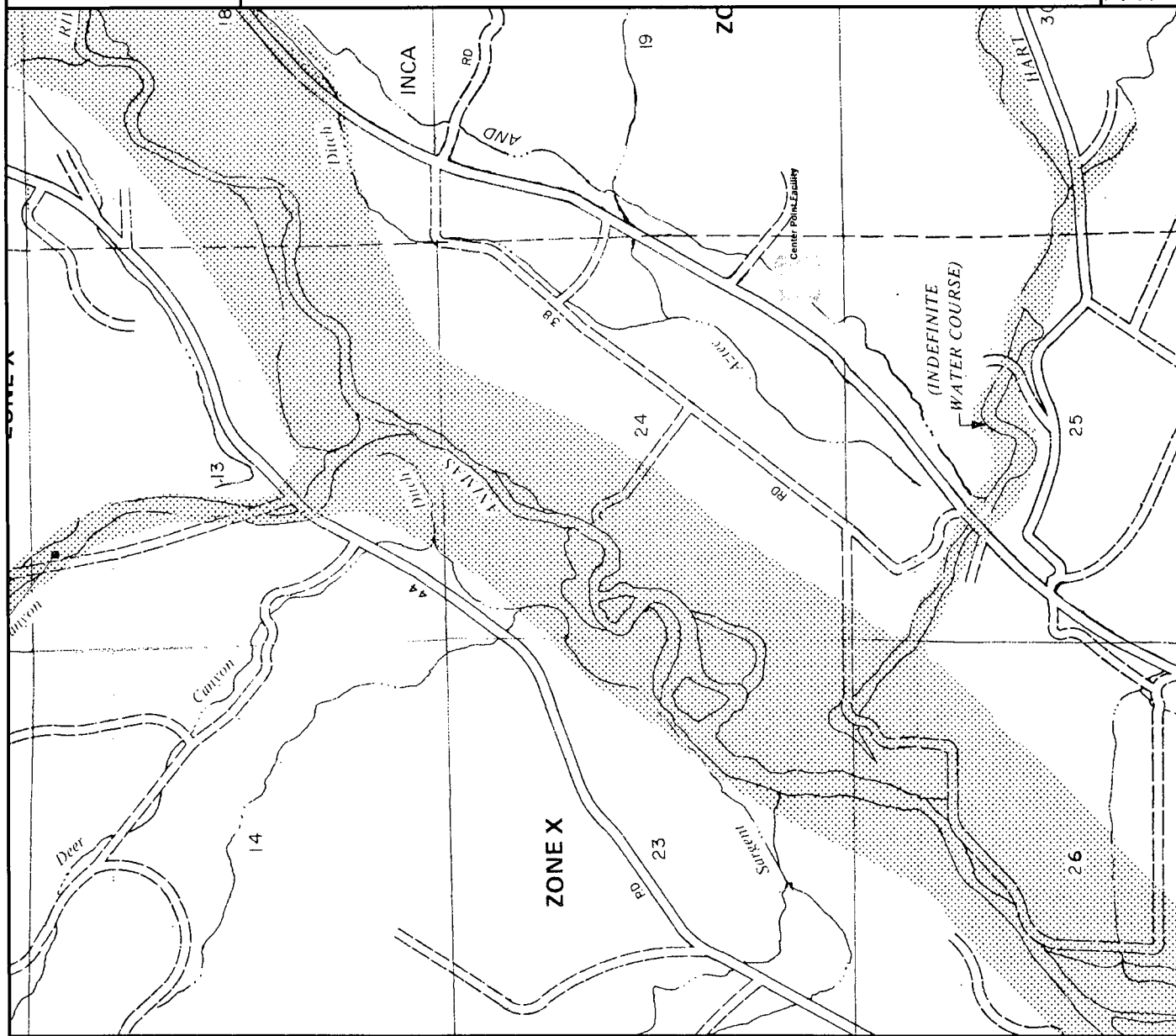
Maralex Disposal, LLC
Center Point SWD#1
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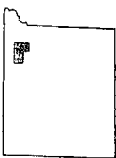

Operations and Maintenance Plan:

1. Maralex will operate and maintain the below-grade tank to contain liquids and solids and maintain the integrity of the steel tank, the concrete secondary containment, and the expanded metal roof to prevent contamination of fresh water and protect public health and the environment.
2. Maralex will not store or discharge any hazardous waste in the tank.
3. Maralex will maintain at least 1' of freeboard in the steel tank by trucking the water to an approved water disposal facility.
4. Maralex will operate and install the tank such as to prevent the collection of surface water run-on. The exterior cement pit has 1' located above ground level that will prevent surface water from entering the pit.
5. The below-grade tank supports a facility that contains produced water; however, should there be any visible or measurable layer of oil on the surface of the tank, Maralex shall remove the oil and dispose of it through the Envirotech Disposal Facility or a similarly approved location.
6. Maralex operations personnel will visually inspect the below-grade tank on a monthly basis. Records indicating the amount and type of fluid visible, if any, shall be recorded on the monthly pumper's report and retained at the Maralex Disposal office in Ignacio, Colorado for five years.
7. Should the below-grade tank develop a leak or if any penetration of the below-grade tank occurs below the liquid's surface, Maralex shall remove all liquid above the damage or leak line within 48 hours and immediately notify the Aztec office of the NMOCD. Maralex will then repair the damage to the below-grade tank.

Centerpoint Below-Grade Tank Application - Subsurface Mines





NATIONAL FLOOD INSURANCE PROGRAM	
FIRM	
FLOOD INSURANCE RATE MAP	
SAN JUAN COUNTY, NEW MEXICO	
UNINCORPORATED AREAS	
PANEL 350 OF 1450 (SEE MAP INDEX FOR PANELS NOT PRINTED)	
	
COMMUNITY-PANEL NUMBER 350064 0350 B	
EFFECTIVE DATE: AUGUST 4, 1988	
	
Federal Emergency Management Agency	

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov