

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**

1664
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.

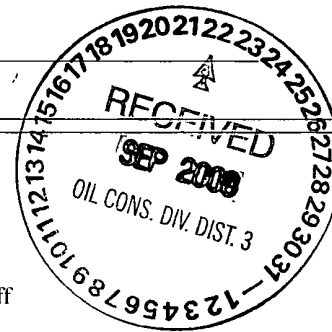
1.
Operator: **Merrion Oil & Gas Corporation** OGRID #: **14634**
Address: **610 Reilly Ave Farmington, NM 87401**
Facility or well name: **Flush #1**
API Number: **30-045-30271** OCD Permit Number: _____
U/L or Qtr/Qtr **F** Section **2** Township **26N** Range **13W** County: **San Juan**
Center of Proposed Design: Latitude **36.519253932 N** Longitude **-108.191492827 W** 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 _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

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: **400 bbl** Type of fluid: **Water**
Tank Construction material: **Welded Metal**
☒ 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 _____

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.



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

☐ 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): **Philana Thompson**Title: **Regulatory Compliance Specialist**

Signature: _____

Date: **9/18/08**e-mail address: **pthompson@merrion.bz**Telephone: **505-324-5336**

20.

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

OCD Representative Signature: _____

Approval Date: **3/19/2012**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 indentify 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: _____

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: Range: Sections:

NAD27 X Y Zone: Search Radius

County: Basin: Number: Suffix:

Owner Name (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 09/18/2008

(acre ft per annum)				(quarters are 1=NW 2=NE 3=SW 4=SE)										UTM are in Meters)			Start	Finish	Depth	Depth (ir	
DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM_Zone	Easting	Northing	Date	Date	Well	Water
RG 44629	DOM	3	DON B. PENNINGTON	RG 44629	Shallow	27N	13W	33							13	211276	4047796	10/21/1985	10/24/1985	366	310

Record Count: 1

New Mexico Office of the State Engineer
POD Reports and Downloads

Township Range Sections:

NAD27 X: Y: Zone Search Radius

County Basin Number Suffix

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 09/18/2008																						
(acre ft per annum)				(quarters are 1=NW 2=NE 3=SW 4=SE)																		
DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y	UTM are in Meters)			Start	Finish	Depth	Depth (ir	
																UTM Zone	Easting	Northing	Date	Date	Well	Water
<u>RG 44629</u>	DOM	3	DON B. PENNIVGTON	<u>RG 44629</u>	Shallow	27N	13W	33				13	211276	4047796		13	211276	4047796	10/21/1985	10/24/1985	366	310
Record Count: 1																						

State of New Mexico
Energy, Minerals & Mining Resources Department

Form C - 102

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

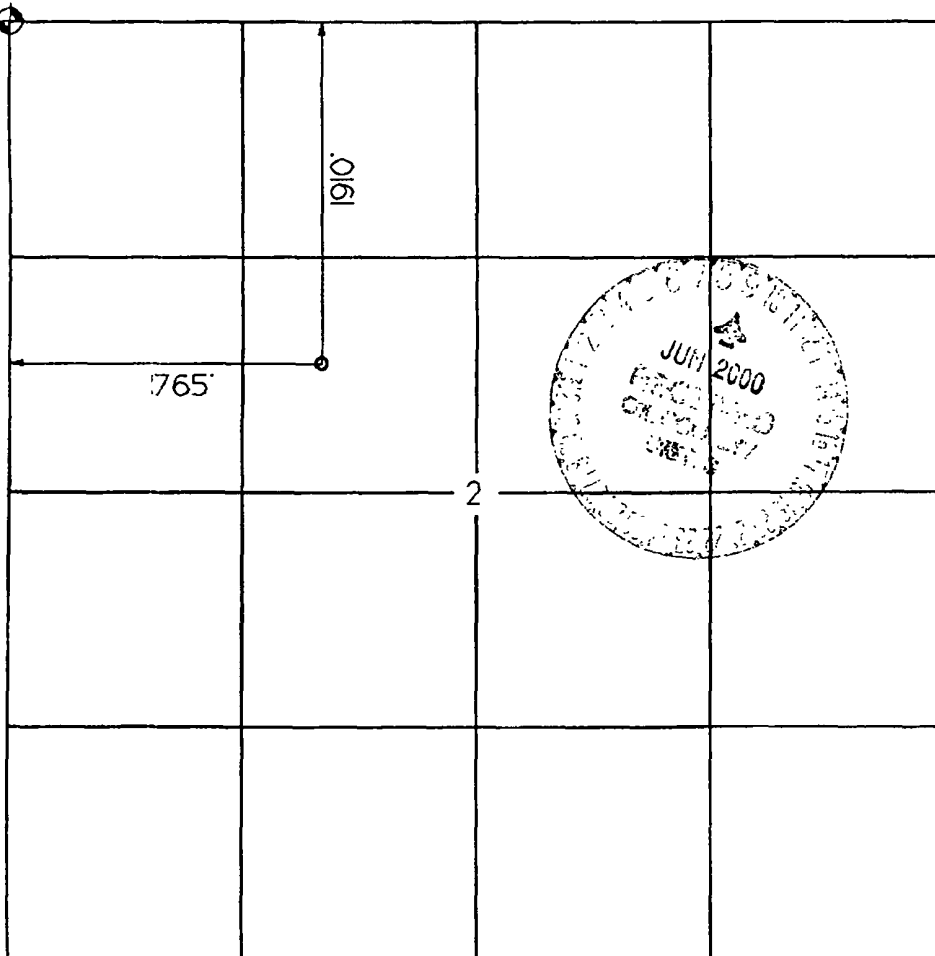
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 50-045-30271	Pool Code 96160	Pool Name SWD; Mesa Verde
Property Code 26049	Property Name FLUSH	Well Number 1
OGRI No. 014634	Operator Name MERRION OIL & GAS	Elevation 6047'

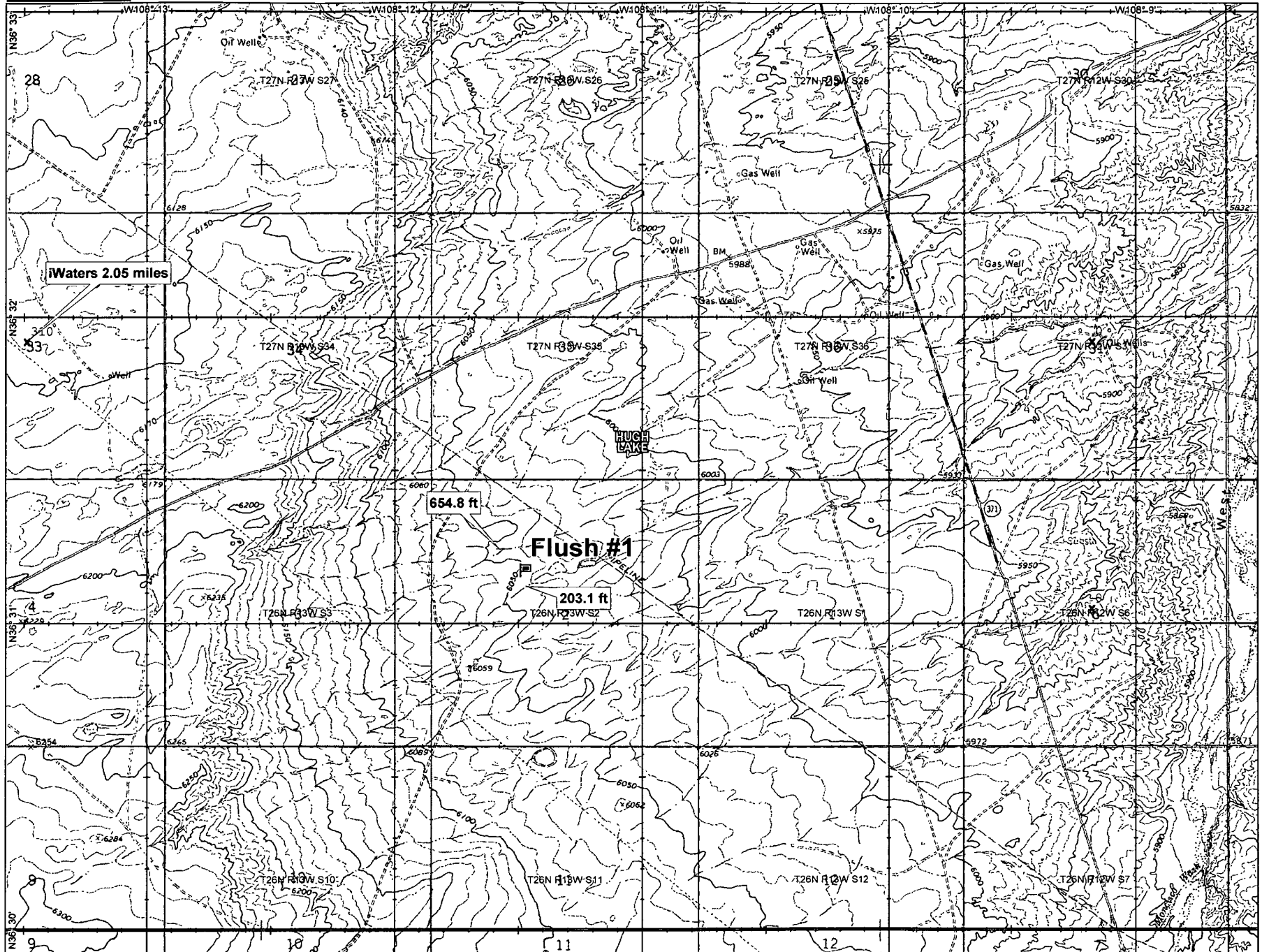
Surface Location									
UL or Lot F	Sec. 2	Twp. 26 N.	Rge. 13 W.	Lot Idn. SENW	Feet from > 1910	North/South NORTH	Feet from > 1765	East/West WEST	County SAN JUAN

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County
Dedication	Joint ?	Consolidation			Order No.				

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



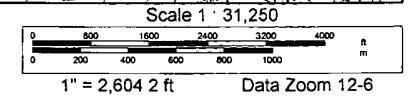
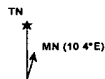
OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>[Signature]</i>
Printed Name	Steven S. Dunn
Title	Drilg & Prod Manager
Date	6/07/00
SURVEYOR CERTIFICATION	
I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of Survey	18 MAY 2000
Signature and Seal of Professional Surveyor	<i>[Signature]</i>

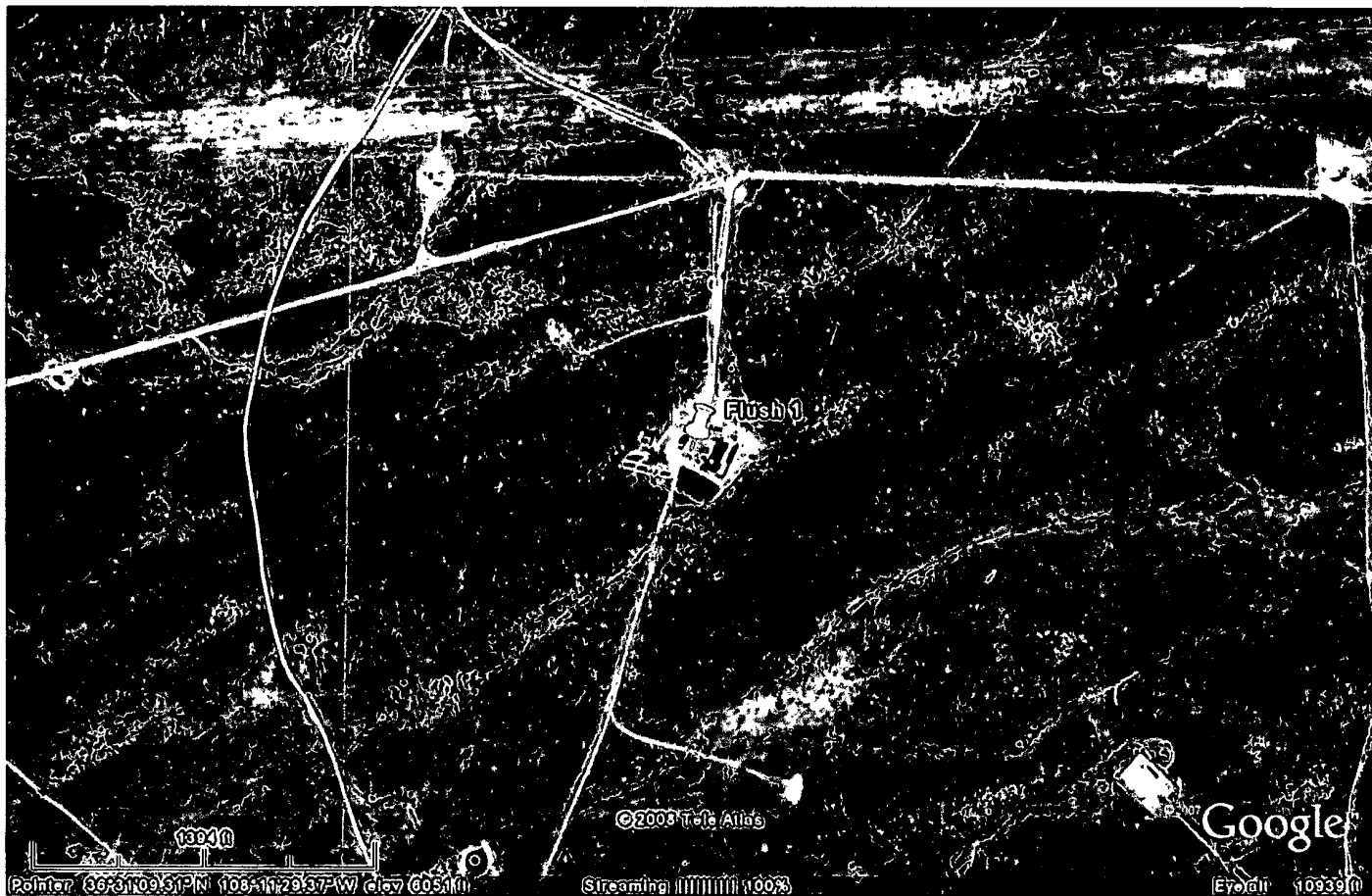


Data use subject to license

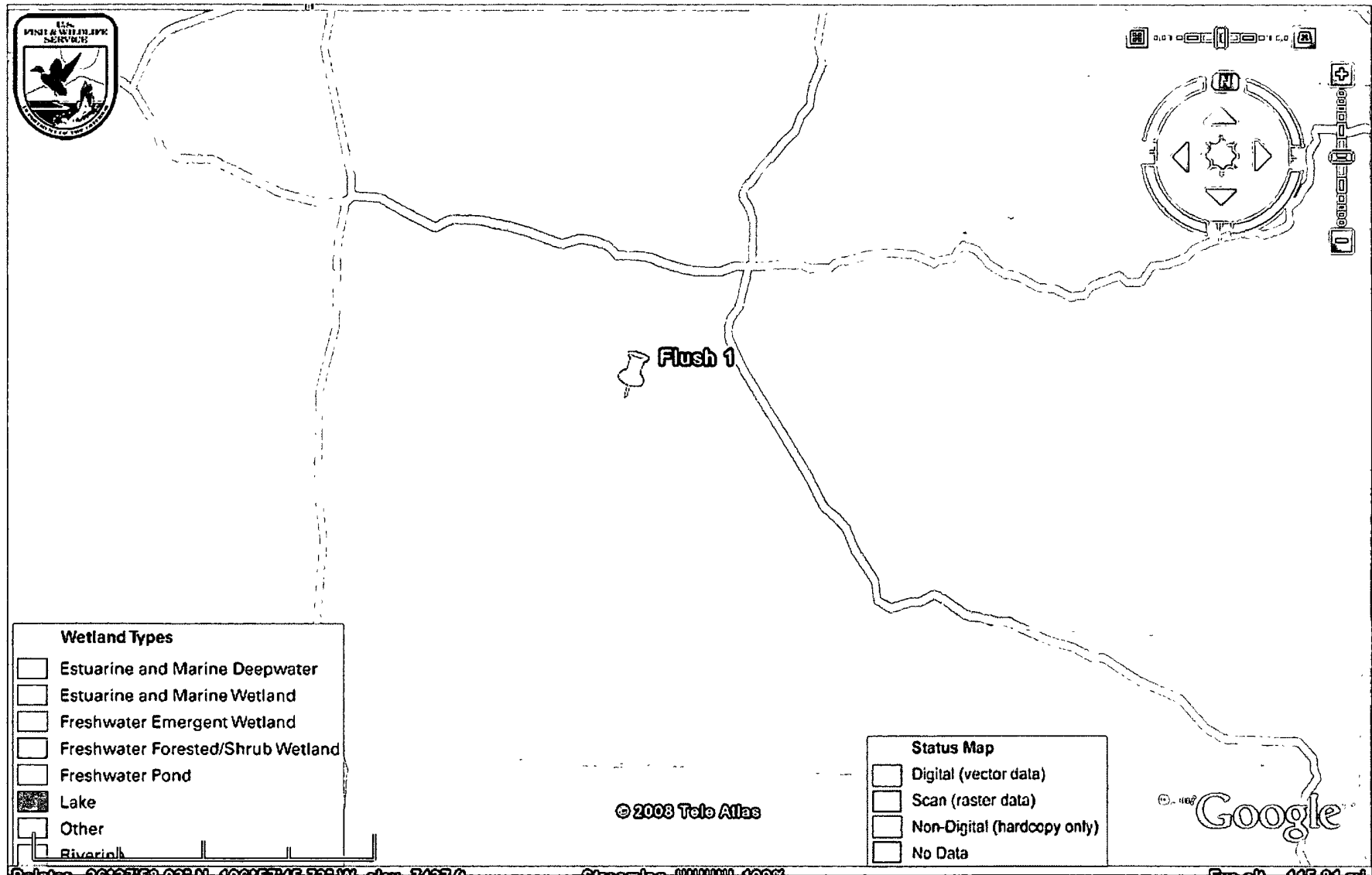
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www.delorme.com



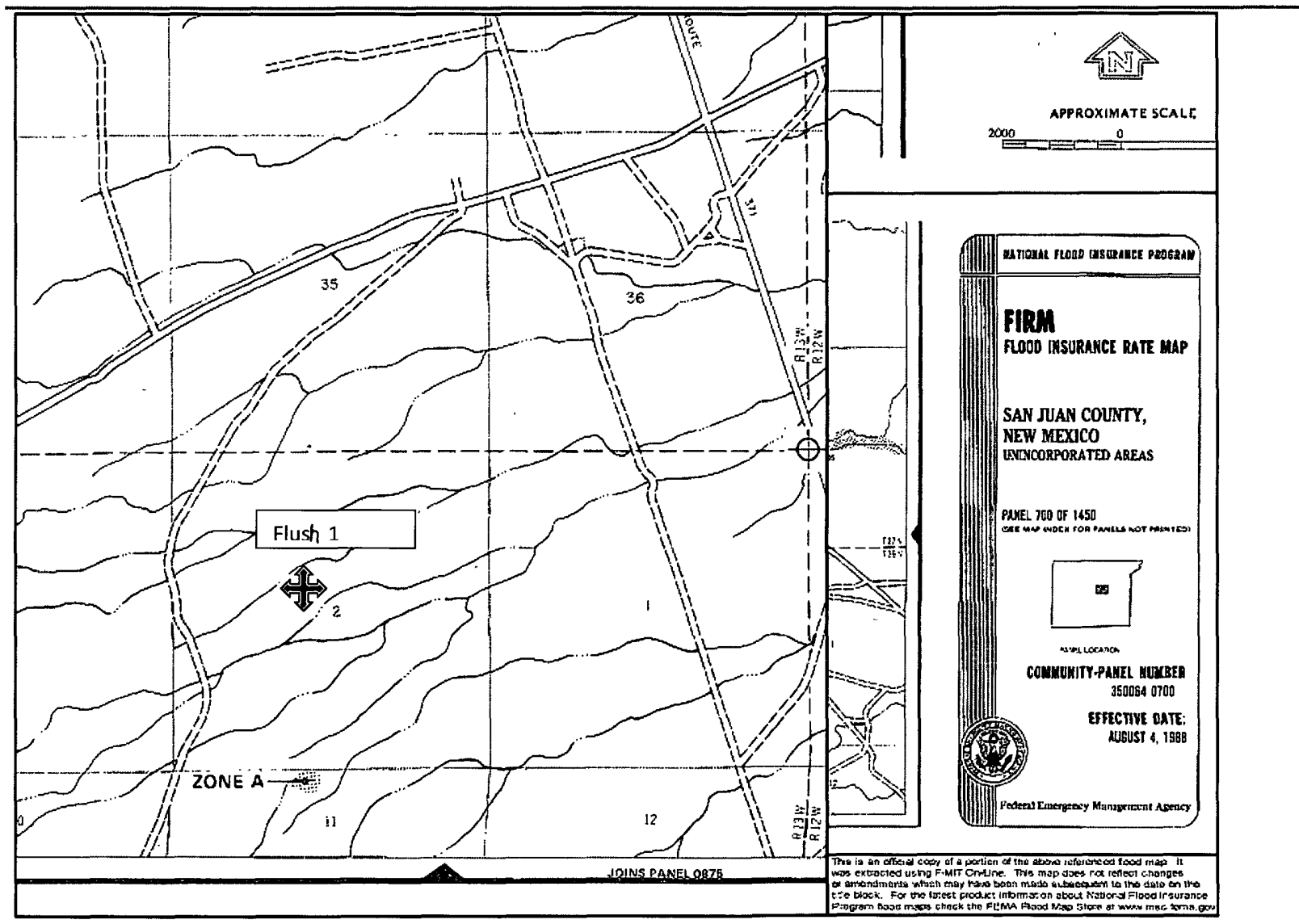


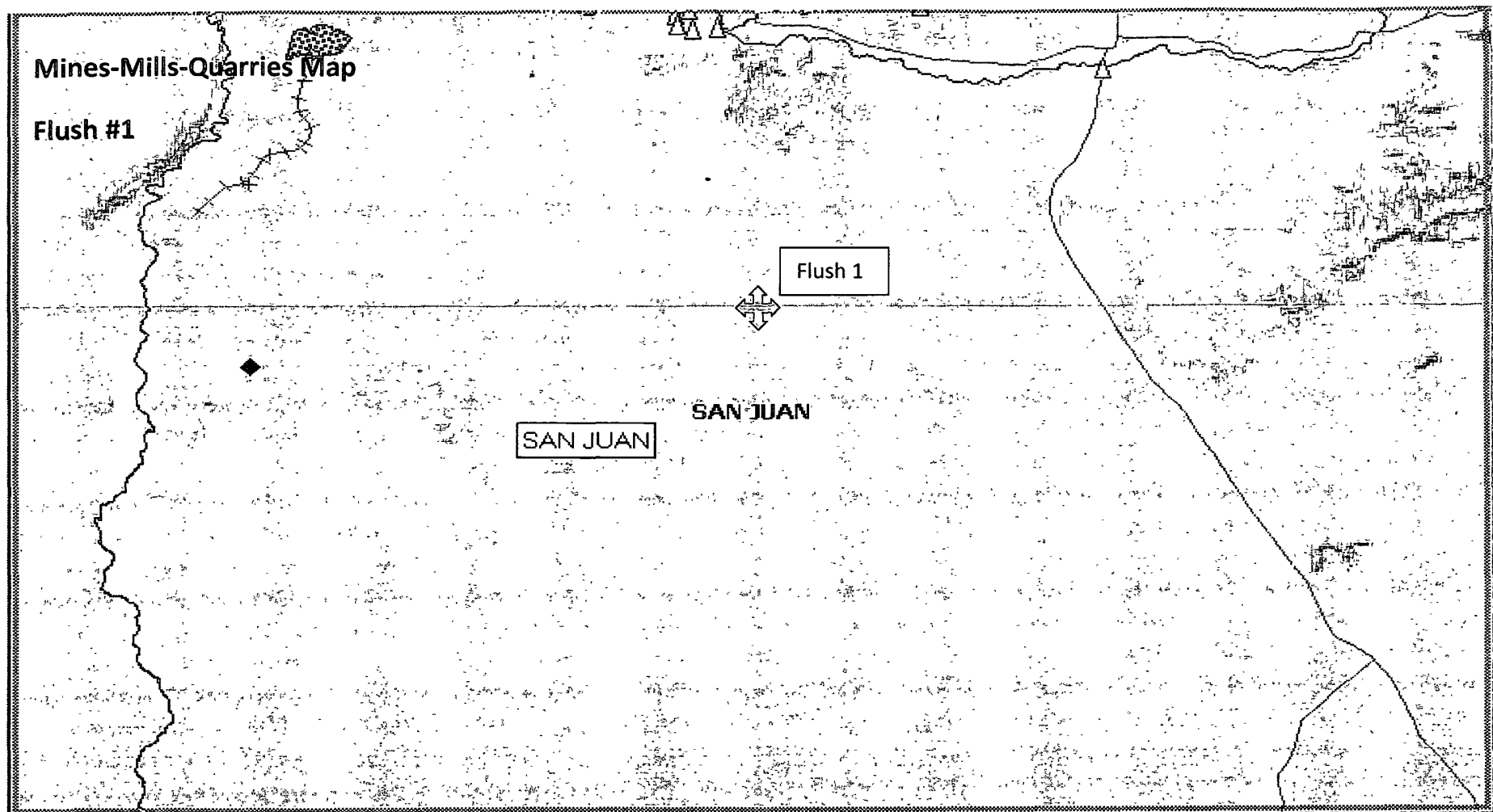
Wetland Information- Flush #1



Flush #1 API 30-045-30271

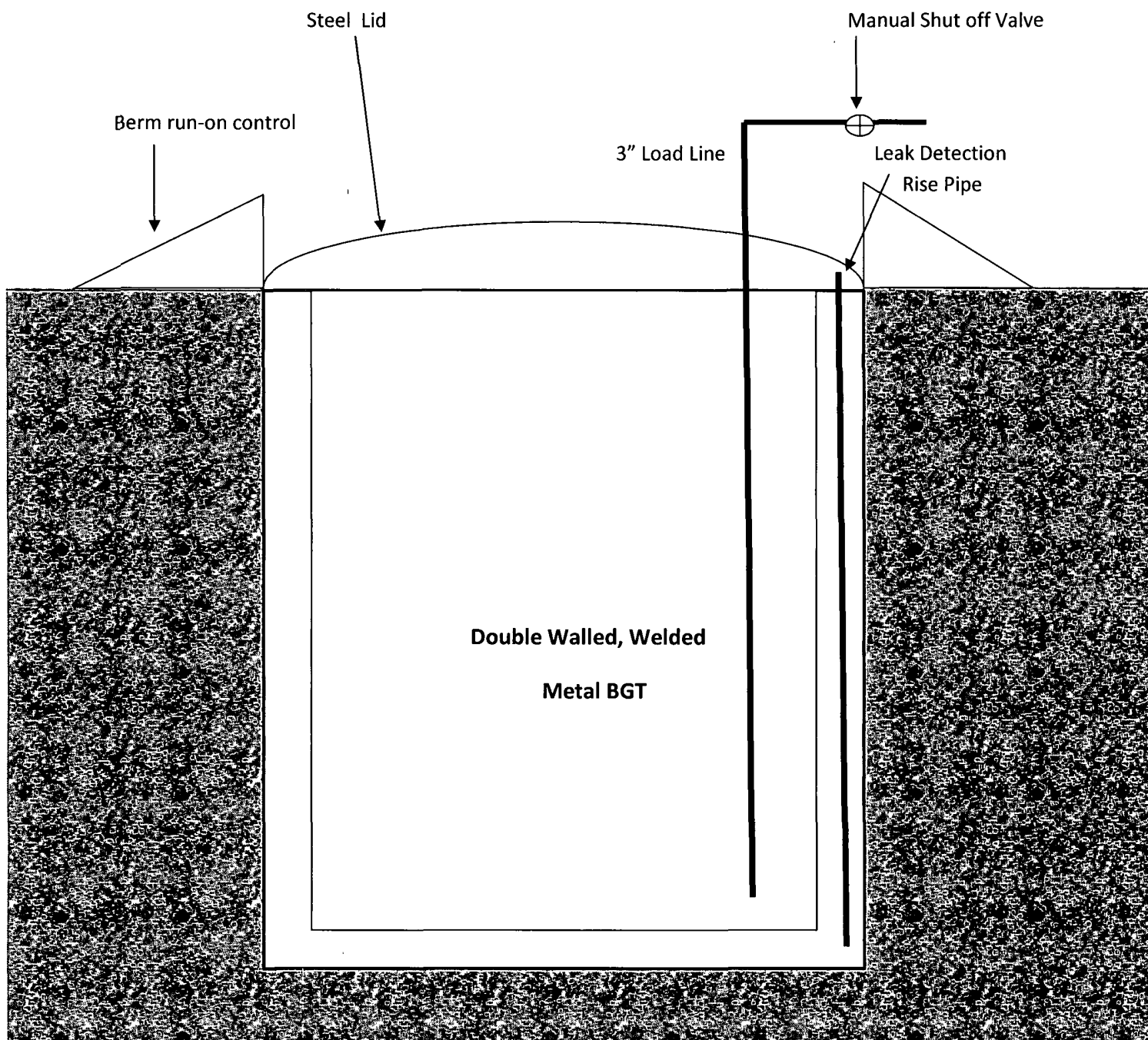
FEMA Flood Map- Flood Zone X





Mines, Mills & Quarries Commodity Groups

- △ Aggregate & Stone Mines
- ◇ Coal Mines
- ☆ Industrial Minerals Mines
- ▽ Industrial Minerals Mills
- ▣ Metal Mines and Mill Concentrate
- Potash Mines & Refineries
- ⌘ Smelters & Refinery Ops.
- ✱ Uranium Mines
- ⊕ Uranium Mills



Merrion Oil & Gas Standard Below Grade Tank design

Flush #1 Siting Criteria

1. Ground water is not less than 50 ft below the bottom of the BGT. Ground water is greater than 100 ft below the bottom of the BGT.
2. The BGT is not within 300 ft of a continuously flowing water course, or 200 ft of any other watercourse, lakebed, sinkhole, or playa lake (measured from ordinary high water mark). See attached topographic map.
3. The BGT is not within 300 ft from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. See the attached satellite image.
4. The BGT is not 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. See attached NM Office of the State Engineer iWaters database search.
5. The BGT is NOT 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.
6. The BGT is not within 500 feet of a wetland. See attached satellite and wetland map.
7. The BGT is not within the area overlying a subsurface mine. See the attached Mine, Mills and Quarry map of New Mexico (New Mexico, EMND 2008) showing the location and area around the subject pit.
8. The BGT is not located within an unstable area. See the attached topographic map of the location and area around the subject BGT.
9. The BGT is not located within a 100-year floodplain area. See the attached FEMA map of the 100 year floodplain showing the location and area around the subject BGT.

Flush #1 S2, T26N, R13W Hydrogeologic Data

Flush #1 is located on State Lands in the San Juan structural basin in San Juan County, New Mexico. The region is a northwest-trending asymmetric structural depression. The basin merges gradually into adjacent depressions or uplifts. The structural boundaries principally consist of large, elongate domal uplifts; low marginal platforms; and abrupt monoclines.

A records search of the NM office of the State Engineer- iWaters database was conducted for the T27N-13W & T26N-13W, (iWaters report attached & also indicated on topo). The closest water wells are located in S33, T27N, R13W which is 2.05 miles from the current well location. The well was drilled to a depth of 366', the top of the water was reported at 310'. The water for this well is used for domestic purposes and no other information was available. iWaters has information regarding an Artesian source in S2, T26N- R13W. The depth of the well is 1774' with no water depth available.

GROUND WATER:

The **Menefee formation** is a source of water for domestic and livestock use in areas where water quality is suitable for these uses. Water wells generally are on or near the outcrop areas. The altitude of the potentiometric surface of water in the Menefee is at approximately 5,986' ±. Water in the Menefee occurs under both water-table and artesian conditions. Water table conditions occur where sandstones crop out and artesian conditions occur in isolated channel sands enclosed in shale.

The **Cliff House** formation is a source of water for domestic and livestock use where water quality is suitable. The closest altitude of the potentiometric surface ground water to this location is 5821'. Water in the Cliff House formation occurs under both water-table and artesian conditions.

The **Point Lookout** formation is a source of water for domestic and livestock use where water quality is acceptable. The altitude of the potentiometric surface of water in the Point Lookout formation is at approximately 6,155' ±. Water in the Pt Lookout formation occurs under both water-table and artesian conditions.

GEOLOGY

The **Menefee** formation crops out beyond the margins of the central basin. Erosion resistant sandstones in the Menefee commonly cap isolated buttes and hillocks. Topography formed on the Menefee is rolling to rough, broke and steep, and generally has badlands appearance. The upper part of the Menefee formation commonly forms steep slopes below mesas or buttes capped by erosion resistant Cliff House Sandstone. In general the Menefee Formation consists of interbedded and repetitive sequences of differing thicknesses of sandstone, siltstone, shale and claystone, carbonaceous shale, and coal beds of differing thickness. Typically the sandstones are lenticular light brown to gray thick to very thick bedded and fine to medium grained with clay matrix and various types of cement. The siltstones commonly are tabular gray and thin to thick bedded; shales and claystones typically are light brownish gray and thick to very thick bedded.

The **Cliff House** formation crops out around the margins of the central basin and typically caps mesas and forms erosion resistant dip slopes and hogbacks. The Cliff House Sandstones conformably overlain by and intertongues with the Lewis Shale, both of these units conformably and unconformably overlie the Menefee Formation with which they locally intertongue. In some areas where Cliff House tongues pinch out the Lewis Shale may directly overlie the Menefee Formation. In the western part of the basin near the confluence of Coyote Wash and the Chaco River the Cliff House merges with the Pictured Cliffs Sandstone wedging out the Lewis Shale. The Cliff House Sandstone strata consist of several thick sandstone tongues that represent marine shorezone deposits of an overall transgressing shallow sea. Molenaar noted that these sandstone bodies actually are off lap or regressive deposits formed during siltstands and minor regressions of the shore line.

The ***Point Lookout*** formation outcrops typically form cliffs, cap mesas and buttes, or form erosion resistant dip slopes and hogbacks. It conformably overlies the Manocs Shale throughout the basin; the contact is characterized by a distinct offshore marine transistion zone consisting of interbedded thin sandstones, siltstones, and shales. The Pt lookout sandstone generally consists of a sequence of light-gray, thick to very thick bedded, very fine to medium grained, locally crossbedded sandstone. Thin interbeds of dark marine shale also occur, especially in the lower part of the unit.

Reference:

- HA-720E Hydrogeology of the Cliff House Sandstone in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah**, Thorn, C. R.; Levings, G. W.; Craigg, S. D.; Dam, W. L.; Kernodle, J. M., 1990, USGS, atlas format. *(1,000,000 and 2,000,000 scale)*
- HA-720F Hydrogeology of the Menefee Formation, San Juan structural basin, New Mexico, Colorado, Arizona, and Utah**, Levings, G. W.; Craigg, S. D.; Dam, W. L.; Kernodle, J. M., 1990, USGS, atlas format. *(1,000,000 and 2,000,000 scale)*
- HA-720G Hydrogeology of the Point Lookout Sandstone in the San Juan Basin, Colorado, Arizona, and Utah**, Craigg, S. D.; Dam, W. L.; Kernodle, J. M.; Thorn, C. R.; Levings, G. W., 1990, USGS, atlas format. *(1,000,000 and 2,000,000 scale)*
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Flush #1

BGT

Design & Construction Plan

1. Below Grade Tank was designed and constructed to contain liquids and solids and would prevent contamination of fresh water and protect the public health and environment. (see attached BGT design).
2. MOG posted a well sign on location that lists the following: the operator on record as the operator; the location of the well site by UL, S, T, R; and emergency telephone numbers. The location was signed in accordance with rule 19.15.3.103 Sign on wells.
3. MOG fenced the location with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level.
4. The BGT was covered with a steel lid on top of the tank.
5. The BGT was constructed to ensure the confinement of liquids and prevent unauthorized releases.
6. The BGT was constructed of materials resistant to the tank's particular contents and resistant to damage from sunlight.
7. The BGT was constructed with a level base free of rocks, debris, sharp edges or irregularities to prevent puncture, cracks or indentations of the tank bottom.
8. The BGT was constructed to prevent overflow and the collection of surface water run on/ run off (see attached BGT design).
9. The BGT is constructed of double walled- double bottom, welded metal (see attached BGT design).
10. The BGT is equipped with a 3' load line with a manual shut off valve (see attached BGT design).
11. The BGT is equipped with a leak detection rise pipe (see attached BGT design).
12. The BGT has diversionary berms, ditches or sloping that prevents overflow and the collection of surface water entrapment (see attached BGT design).

Flush #1
BGT
Operation Requirements

1. The BGT will be maintained and operated to contain liquids and solids and maintain integrity of the tank so as to prevent contamination of fresh water and protect public health and environment.
2. All fluids will be recycled, reused, reclaimed or disposed of in a manner approved by division rules.
3. MOG will not discharge into or store any hazardous waste in the BGT.
4. If the BGT develops a leak, or if any penetration occurs below the liquid's surface, MOG shall remove all liquid above the damage or leak line within 48 hours and notify the NMOCD within 48 hours of discovery and repair the damage or replace the BGT.
5. MOG will not allow the BGT to overflow or allow surface water run-on to enter the BGT.
6. MOG shall remove any visible or measurable layer of oil from the fluid surface of the BGT.
7. MOG will inspect the BGT monthly and will maintain records of each inspection for 5 years.
8. MOG shall maintain adequate freeboard to prevent overtopping of the BGT.

Flush #1

BGT

Closure Requirements

1. The BGT of the Flush #1 meets the requirements of Paragraphs 1 through 4 of Subs. I of 19.15.17.11. In the event that the integrity fails on the following BGT, MOG will replace or repair to maintain compliance.
2. All fluids will be removed at the start of the BGT closure process from the BGT and disposed of in a division approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.
3. All solids or sludge from the BGT will be removed and transported to either Envirotech or IEL.
4. MOG will remove the BGT and dispose of it in a division approved facility or recycle, reuse or reclaim it in a manner that the appropriate district office approves.
5. Any on-site equipment that is associated with the following BGT will be removed, unless the equipment is required for some other purposes.
6. MOG will not allow the BGT to overflow or allow surface water run-on to enter the BGT.
7. MOG shall remove any visible or measurable layer of oil from the fluid surface of the BGT.
8. MOG will inspect the BGT monthly and will maintain records of each inspection for 5 years.
9. MOG shall maintain adequate freeboard to prevent overtopping of the BGT.
10. A five point composite sample will be taken from the soils beneath the BGT pursuant to 19.15.17.13 (E)(4) in order to assure there has not been any type of contamination.

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
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	250 or background

11. The NMOCD shall be notified of testing results on form C-141.
12. If it is determined that a release has occurred, rule 19.15.3.116 NMAC and 19.15.1.19 NMAC will be complied with as required.

13. If the BGT has met all closure requirements as outlined in paragraph 4 of subs. E of 19.15.17.13 NMAC, then MOG shall backfill the excavated site with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; re-contour and re-vegetate the site as required by Subs G, H and I of 19.15.17.13 NMAC, and per BLM Conditions of approval. MOG shall see the disturbed areas the first growing season after the MOG closes the BGT. Seeding will be accomplished via drilling on the contour whenever practical or by other division approved methods. BLM or Forest Service stipulated seed mixes will be used on 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.

Type	Variety or Cultivator	PLS/A
Western Wheatgrass	Arriba	3.0
Indian Ricegrass	Paloma or rimrock	3.0
Slender Wheatgrass	San Luis	2.0
Crested Wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2.0
Four-wing Saltbrus	Delar	.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS)= Purity X Germination/100. Two lost of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

Purity 50 percent

Germination 40 percent

Percent PLS 20 percent

5lb. bulk seed required to make

1lb. PLS

Source No. two (better quality)

Purity 80 percent

Germination 63 percent

Percent PLS 50 percent

2lb. bulk seed required to make

1lb. PLS

14. The NMOCD shall be notified within 60 days of closure of the BGT. The closure report will be filed on form C144 and will document all closure activities, sampling results, a plot plan, and details on backfilling and capping where applicable.
15. The NMOCD will be notified once successful re-vegetation has occurred.