

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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

- Type of action:
[ ] Below grade tank registration
[ ] Permit of a pit or proposed alternative method
[ ] Closure of a pit, below-grade tank, or proposed alternative method
[ ] Modification to an existing permit/or registration
[X] Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Dugan Production Corp. OGRID #: 006515
Address: PO Box 420, Farmington, NM 87499-0420
Facility or well name: Carpenter Com #1E
API Number: 30-045-23613 OCD Permit Number:
U/L or Qtr/Qtr F Section 25 Township 30N Range 14W County: San Juan
Center of Proposed Design: Latitude 36.78732 Longitude -108.26375 NAD83
Surface Owner: [X] Federal [ ] State [ ] Private [ ] Tribal Trust or Indian Allotment

2.
[ ] Pit: Subsection F, G or J of 19.15.17.11 NMAC
Temporary: [ ] Drilling [ ] Workover
[ ] Permanent [ ] Emergency [ ] Cavitation [ ] P&A [ ] Multi-Well Fluid Management Low Chloride Drilling Fluid [ ] yes [ ] no
[ ] Lined [ ] Unlined Liner type: Thickness mil [ ] LLDPE [ ] HDPE [ ] PVC [ ] Other
[ ] String-Reinforced
Liner Seams: [ ] Welded [ ] Factory [ ] Other Volume: bbl Dimensions: L x W x D

3.
[X] Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid: Produced Water
Tank Construction material:
[ ] Secondary containment with leak detection [ ] Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
[ ] Visible sidewalls and liner [ ] Visible sidewalls only [ ] Other
Liner type: Thickness [ ] HDPE [ ] PVC [ ] Other

4.
[ ] Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)
[ ] Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)
[ ] Four foot height, four strands of barbed wire evenly spaced between one and four feet
[X] Alternate. Please specify 4'=3' Hog wire + Top Rail

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

- Screen  Netting  Other \_\_\_\_\_
- Monthly inspections (If netting or screening is not physically feasible)

7. **Signs:** Subsection C of 19.15.17.11 NMAC

- 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- Signed in compliance with 19.15.16.8 NMAC

8. **Variations and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

**Please check a box if one or more of the following is requested, if not leave blank:**

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

9. **Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

**Instructions:** *The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*

**General siting**

**Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

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

- Yes  No
- NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit .**

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

- Yes  No
- NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

- Yes  No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

- Yes  No

Within an unstable area. **(Does not apply to below grade tanks)**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

- Yes  No

Within a 100-year floodplain. **(Does not apply to below grade tanks)**

- FEMA map

- Yes  No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

- Yes  No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

- Yes  No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

- Yes  No

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

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

- Yes  No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

- Yes  No

Within 100 feet of a wetland.

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

Yes  No

**Temporary Pit Non-low chloride drilling fluid**

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

Yes  No

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

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

Yes  No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

Yes  No

Within 300 feet of a wetland.

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

Yes  No

**Permanent Pit or Multi-Well Fluid Management Pit**

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

Yes  No

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

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

Yes  No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

Yes  No

Within 500 feet of a wetland.

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

Yes  No

10. **Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

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

Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

11. **Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

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

Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

12. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

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

- Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Climatological Factors Assessment
- Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- Quality Control/Quality Assurance Construction and Installation Plan
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13. **Proposed Closure:** 19.15.17.13 NMAC

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

- Type:  Drilling  Workover  Emergency  Cavitation  P&A  Permanent Pit  Below-grade Tank  Multi-well Fluid Management Pit  
 Alternative
- Proposed Closure Method:  Waste Excavation and Removal  
 Waste Removal (Closed-loop systems only)  
 On-site Closure Method (Only for temporary pits and closed-loop systems)  
 In-place Burial  On-site Trench Burial  
 Alternative Closure Method

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

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

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

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

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

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality  Yes  No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  Yes  No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map  Yes  No

Within a 100-year floodplain.

- FEMA map  Yes  No

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

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

17. **Operator Application Certification:**

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

Name (Print): Kevin Smaka, PE Title: Regulatory Engineer

Signature: *Kevin Smaka* Date: 9/12/23

e-mail address: Kevin.Smaka@duganproduction.com Telephone: 505-325-1821 x1049

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

**OCD Representative Signature:** *Victoria Venegas* **Approval Date:** 09/20/2023

**Title:** Environmental Specialist **OCD Permit Number:** BGT1

19. **Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

**Closure Completion Date:** \_\_\_\_\_

20. **Closure Method:**

Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  Waste Removal (Closed-loop systems only)

If different from approved plan, please explain.

21. **Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure for private land only)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for on-site closure)
- Disposal Facility Name and Permit Number
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD:  1927  1983

22.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

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

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

## Below Grade Tank Closure Plan

Dugan Production Corp.

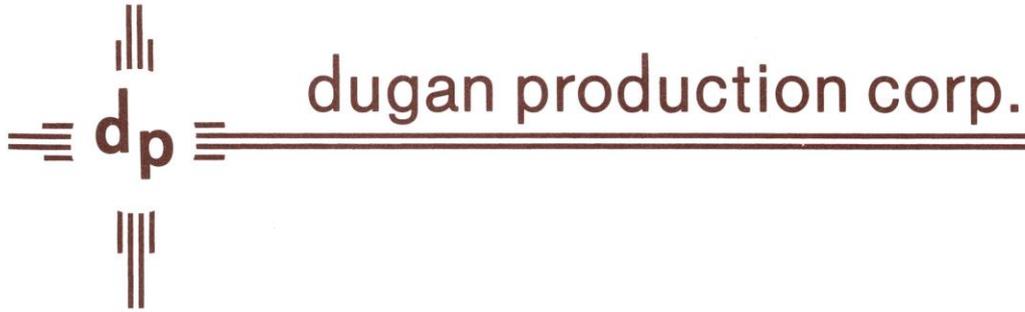
As directed by NMAC 19.15.17 the following plan/procedure has been prepared for closure of the below grade tank identified on the associated C-144.

1. Dugan will provide notice via-email to the NMOCD 72 hours prior to commencing closure activities. Dugan will also notify the appropriate surface owner by e-mail if possible or by certified letter.
2. Dugan will close the pit, drying pad or below-grade tank by first removing all contents and, if applicable, synthetic liners and transferring those materials to a division approved facility. In this case Dugan will haul solid waste to Envirotech (Permit # NM-01-0011). Liquid waste will be hauled to Dugan's Sanchez O'Brien SWD #1 (Permit # SWD-694). If needed the pit liner will be disposed of at Waste Management's Crouch Mesa facility.
3. Dugan will take a composite 5-point soil sample underneath the BGT liner, grabbing stained and wet soils. The samples will be taken to a local lab and analyzed for BTEX, TPH and Chlorides. If the sample results do not exceed the limits in the applicable portion of table 1, found in NMAC 19.15.17, Dugan will continue with closure by backfilling the BGT vault and commencing reclamation activities. In the event the sampling results exceed the limits in table 1 Dugan will further delineate and remediate the soils in the BGT vault until samples are in the limits established in Table 1.

<b>TABLE I</b>			
Depth Below bottom of pit to groundwater less than 10,000 mg/l TDS	<b>Constituent</b>	<b>Method</b>	<b>Limit</b>
≤ 50 Feet	Chloride	EPA 9056	600 mg/kg
	TPH	Method 418.1	100 mg/kg
	BTEX	Method 8021B	50 mg/kg
	Benzene	Method 8021B	10 mg/kg
51 feet - 100 feet	Chloride	EPA 9056	10,000 mg/kg
	TPH	Method 418.1	2,500 mg/kg
	GRO + DRO	Method 8015	1,000 mg/kg
	BTEX	Method 8021B	50 mg/kg
	Benzene	Method 8021B	10 mg/kg
> 100 feet	Chloride	EPA 9056	20,000 mg/kg
	TPH	EPA 418.1	2,500 mg/kg
	GRO + DRO	Method 8015	1,000 mg/kg
	BTEX	Method 8021B	50 mg/kg
	Benzene	Method 8021B	10 mg/kg

4. All areas disturbed by the closure of pits and below-grade tanks, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.
5. Topsoil and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of a pit, drying pad associated with a closed-loop system or below-grade tank.

6. Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.
7. Other regulatory requirements. The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.
8. The operator shall notify the division when reclamation and re-vegetation are complete.
9. Concerning soil cover designs for closures after site contouring, where the operator has removed the below-grade tank or drying pad contents and liner, and if necessary remediated the soil beneath the below-grade tank or drying pad liner to chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, shall consist of the background thickness of topsoil or one foot of suitable material, whichever is greater.
  - Dugan has elected to submit this closure plan without any depth to groundwater and citing information and has elected to have all sampling results conducted at the most stringent standards of table 1.
  - In the event samples exceed the allowable limits Dugan will review the results and correlate the results with actual groundwater data. The groundwater determination will also be submitted to the division. In the event the soil samples fall below the allowed limits in table 1 Dugan will proceed with closure and reclamation as outlined in this closure plan. If the samples exceed the limits Dugan will delineate and remediate the contaminated soil in question until it meets the thresholds established in table #1.



September 13, 2023

NM Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: Dugan Production Corp. previously submitted C-144's not in NMOCD database  
Carpenter Com #1E (30-045-23613)

To Whom It May Concern,

Dugan Production Corp. (DPC) is submitting a Closure Plan for the referenced well and would like to also submit the C-144 Closure Plan that was submitted on 12/5/2008, (signed by Kurt Fagrelus). This document was not scanned into the NMOCD records and DPC is submitting now to reflect that it had been submitted in a timely manner as required by NMOCD rules.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin Smaka', is written over a horizontal line.

Kevin Smaka, PE  
Regulatory Engineer

**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

**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: Dugan Production Corp. OGRID #: 006515  
Address: 709 East Murray Drive, Farmington, New Mexico 87401  
Facility or well name: Carpenter #1E  
API Number: 30-045-23613 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr F Section 25 Township 30N Range 14W County: San Juan  
Center of Proposed Design: Latitude 36.78732 North Longitude 108.26375 West 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: 95 bbl Type of fluid: Producer H2O  
Tank Construction material: Steel (See Closure Plan #3)  
 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 20 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 4' =3' Hog wire + Top Rail

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	<input 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 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 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 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 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 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 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 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 type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input 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 H<sub>2</sub>S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

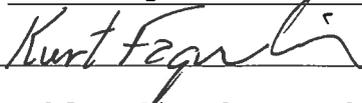
**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be 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.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 50 and 100 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 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).<br>- Topographic map; Visual inspection (certification) of the proposed site  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 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.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within a 100-year floodplain.<br>- FEMA map   | <input type="checkbox"/> Yes <input 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): Kurt Fagrelius Title: Vice President, Exploration  
 Signature:  Date: December 5, 2008  
 e-mail address: kfagrelius@duganproduction.com Telephone: 505-325-1821 (O) , 505-320-8248 (C)

20. **OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ 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): Kurt Fagrelius Title: Vice President, Exploration  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 e-mail address: kfagrelius@duganproduction.com Telephone: 505-325-1821

### **Carpenter #1E Below Grade Tank Maintenance and Operation Plan**

The Carpenter #1E below grade tank will be maintained and operated in accordance with the following requirements:

1. The Carpenter #1E below grade tank will be operated and maintained to contain liquids and solids and maintain the integrity of the tank / liner system or secondary containment system to prevent contamination of fresh water and protect public health and environment. Design features which include containment berms and high level shut off valves and manual shut off valves will be constructed to insure containment of liquids and solids (Exhibit 7). Steel tank will be set level, with a minimum of 6 inches of lift underlain by a liner (sloped to one corner) on top of a firm, smooth foundation bottom (vault floor) will be constructed providing visual leak detection to insure tank integrity.
2. All fluids collected in the below grade tank and below grade tank vault will be recycled, reused, reclaimed or disposed of in a manner approved by NMOCD rules.
3. Do not dispose of solid waste, trash, debris or hazardous material into the below grade tank or the below grade tank vault.
4. If the Carpenter #1E below grade tank develops a leak or if a penetration occurs below the liquids surface, all liquid will be removed above the damage or leak line within 48-hours. The NMOCD office will be notified within 48-hours of the discovery. The below grade tank / liner system or secondary containment system will then be either modified, retrofitted or replaced in accordance with Subsection I of 19.15.17.11 NMAC. If applicable, the replacement or retrofit below grade tank / liner system or secondary containment system will meet the design and construction requirements of rule 19.15.17.11 NMAC.

In the event a spill or undesirable event occurs, the provisions of rule 19.15.3.116 NMAC may apply. If considered a "Major Release" (any fluid greater than 25-bbbls; any volume which results in fire, or will reach a water course, or may endanger public health, or results in substantial property or environmental damage; any gas greater than 500-mcf; any volume detrimental to water or exceeding established standards) verbal notice will be provided to the NMOCD Santa Fe Environmental Bureau Chief (Wayne Price at 505-476-3490) and Aztec District OCD (Brandon Powell at 505-334-6178) offices within 24-hours of discovery of leak, plus written notice will be provided to the NMOCD Aztec and Santa Fe Environmental Bureau within 15-days after discovery, using C-141. If considered a "Minor Release" (any fluid greater than 5-bbbls but less than or equal to 25-bbbls or any gas greater than 50-mcf but less than 500-mcf, written notice using Form C-141 will be provided to the NMOCD Santa Fe Environmental Bureau Chief in Santa Fe and the Aztec District OCD office. The Bureau of Land Management will be notified in accordance with the provisions of BLM NTL-3A.

5. Below grade tank will be constructed and operated in a manner that prevents the tank from over flow and prevents surface water from entering the pit. Diversion berms will be constructed around the sides of pit and an automatic high level shut-off will be installed.
6. Any measurable oil will be continuously removed from the Carpenter #1E below grade tank to prevent a significant accumulation of oil overtime.



### Carpenter #1E Below Grade Tank Closure Plan—Methods, Procedures and Protocols

1. Comply with deadlines for closure of a pit or below grade tank established by the State of New Mexico, Energy Minerals and Natural Resources Department 19.15.17.13 NMAC, or an earlier date if required by the NMOCD in the case of imminent danger to fresh water, public health or the environment.

Existing	Permit Applc. Submittal or Modification Request	File Closure Plan By	Stop Use By	Close By
On June 16, 2008				
Temporary Pit - Unlined	Not Permtd under 19.15.17	7/16/2008	Upon drlg rig release	9/16/2008
Permanent Pit - Unlined or Lined	Not permitted with NMOCD	7/16/2008	6-16-2008	12/16/2008
Permanent Pit - Unlined	Permitted with NMOCD	12-16-2008	6-16-2010	6-16-2011
BGT-Aprvd. Design	Not Permtd under 19.15.17 Applc. by 9-16-2008	12/16/2008	failed integrity replc w/apprvd design	
BGT-Not Aprvd Design Nor Retrofit to Comply w/19.15.17	Not Permtd under 19.15.17 Mod. Rqst by 9-16-2008	12/31/2008	6/16/2013	6-16-2013
BGT-Not Aprvd Design Nor Retrofit to comply w/19.15.17	NA	12/16/2008	6/16/2013	6/16/2013
Permanent Pit-Design and Constr	Mod. Rqst by 12-16-2008	12/16/2008	failed integrity replc	60-days after cessation
Does not comply w/19.15.17	Comply w/in 18-mos of aprvl	submit w/mod request	w/apprvd design	
Permitted and lined				
Permanent Pit-Design and Constr	Permit Applc by 12-16-2008	12/16/2008		60-days after cessation
Does not comply w/19.15.17	Comply w/in 18-mos of aprvl	submit w/permit Applc		
Registered and Lined				
Permanent Pit	Permitted under 19.15.17	60-Days prior to close		
Temporary Pit	Permitted under 19.15.17	Prior to closure	Upon drlg rig release	6-mos after rig release
BGT	Permitted under 19.15.17	12/16/2013 or prior to closure	failed integrity replc w/apprvd design	60-days after cessation

2. Provide the NMOCD district office at least 72-hours notice but no greater than 1 week prior to any closure operations. Notice will include operator name, well name and number, API number, and location (unit letter, section, township and range).
3. The Carpenter #1E below grade tank is not an approved design under rule 19.15.17. Upon approval of this application, the existing below grade tank will be closed and a new below grade tank that complies with the design requirements of rule 19.15.17 as illustrated in the design plan (Exhibit 7) will be constructed.

4. Below grade tank will be closed within 60-days after cessation of use or by 6-16-2013 whichever comes first.
5. Closure notice will be provided by certified mail to surface owner prior to closing the below grade tank. Proof of notice will be provided to the Environmental Bureau in the NMOCD Santa Fe office and attached to the final closure report.
6. Remove all liquid from below grade tank prior to closure and dispose of at the Dugan Production operated Sanchez O'Brien SWD #1 salt water disposal well (permit SWD-694) located 1650 feet from the South line and 990 feet from the West line (Unit L) of Section 6, Township 24 North, Range 9 West.
7. All solids from the below grade tank and all solids removed from the below grade tank vault will be excavated, hauled to and disposed of at either the Envirotech facility (permit #NM-01-0011) facility located in Section 6, Township 26 North, Range 10 West or the IEI facility (permit NM-01-0010B) located in Section 2, Township 29 North, Range 12 West.
8. Remove below grade tank and obtain prior approval from the NMOCD to dispose (in an approved NMOCD facility), recycle, reuse or reclaim the tank. Documentation of the final disposition of the tank will be provided to the NMOCD in the final closure report.
9. Remove pit liner system, if applicable and dispose of only the pit liner material at an NMOCD approved, solid waste facility (Waste Management's Crouch Mesa facility, San Juan County, New Mexico) in accordance with subparagraph (m) of Paragraph (1) of Subsection D of 19.15.9.712.
10. On site equipment associated with the below grade tank will be removed unless it is needed for some other purpose.
11. Collect at a minimum, a five point, composite sample; also, collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for Benzene, BTEX, TPH, GRO/DRO and chlorides to demonstrate that Benzene, BTEX, TPH, GRO/DRO and chlorides do not exceed the standards as specified in 19.15.17.13.E or the background chloride concentration, whichever is greater.

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	NS
Chlorides	EPA 300.1	250 or Background

12. The NMOCD will be notified of the testing results on form C-141.
13. 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.

14. If the sampling results demonstrate that a release has not occurred, or that any release does not exceed the concentrations specified above or background concentrations, the below grade tank vault will be backfilled with compacted, non-waste containing, earthen material.
15. Stockpiled sub-surface soil will be used to backfill below grade tank vault and re-contour (to a final or intermediate cover that blends with the surrounding topography). A minimum of four feet of compacted, non-waste containing, earthen material will be used as backfill.
16. Stockpiled surface soil will be used as a cover over the backfilled below grade tank vault and disturbed area no longer needed for production operations. The soil cover will include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site whichever is greater. The soil cover will be constructed to the site's existing grade and prevent water collection or ponding and erosion of the cover material.
17. Disturbed areas will be seeded the first growing season after the below grade tank is closed. Seeding will be accomplished by drilling on contour whenever possible or by other division approved methods. BLM stipulated seed mixes will be used on all Federal lands and NMOCD approved seed mixes (administratively approved if required) will be used on all State or private 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. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Seeding or planting will be continued until successful vegetative growth occurs.
18. The NMOCD will be notified within 60-days of closure of the below grade tank. The closure report will be filed on form C-144 and will include the following:
  - a. Proof of Closure Notice (surface owner and division)
  - b. Confirmation Sampling Analytical Results (if applicable)
  - c. Disposal Facility Name and Permit Number
  - d. Soil Backfilling and Cover Installation
  - e. Re-vegetation Application Rates and Seeding Technique
  - f. Site Reclamation (Photo Documentation)
19. The NMOCD will be notified once successful re-vegetation has been achieved.

**Carpenter #1E Below Grade Tank Request for Administrative Approval**

Administrative approval is hereby requested for an alternative to the fencing design for the Carpenter #1E below grade tank.

The request for administrative approval cited above is needed to help minimize environmental impact and increase safety and protect wildlife and public health. The alternative proposed will protect fresh water, public health, safety and the environment more effectively than the design and construction specifications established by the State of New Mexico, Energy Minerals and Natural Resources Department do in rule 19.15.17.11 NMAC.

1. The proposed alternative fencing design will include T-posts spaced 10-feet apart. Hog wire / field fence 4-feet in height will be strung tightly and anchored to the top and bottom of each T-post. Small holes (3" high X 6" wide) in the hog-wire will be located at ground level with increasing larger holes (up to 7" high X 6" wide) located at the top of the fence. Anchor braces will be put at all four corners to strengthen and tighten the fence. Two strands of barbed wire or a pipe / re-bar top rail will be constructed above the hog wire. This fence design (developed over the last 30-years) has proven to be very effective controlling unauthorized access to below grade tanks.

The existing rule (19.15.17.11.D.3) would require the operator to fence the below grade tank with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between on foot and four feet above the ground level. The proposed fencing alternative would provide better security against unauthorized access to below grade tanks. The smaller holes in hog-wire (3" X 6" up to 7" X 6") is more effective at controlling unauthorized access by the public and wildlife than 4-strands of barbed wire spaced 12" apart.

The proposed fence around the below grade tank will be constructed and operated in a manner that prevents unauthorized access and shall maintain the fence in good condition to protect the public and wildlife.

The request for administrative approval cited above is needed to help minimize environmental impact, increase safety and protect wildlife and public health. The alternatives proposed will protect fresh water, public health, safety and the environment more effectively than the design and construction specifications established by the State of New Mexico, Energy Minerals and Natural Resources Department do in rule 19.15.17.11 NMAC.

### **Siting Criteria for the Carpenter #1E Below Grade Tank**

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

New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 30N Range: 14W Sections: 23,24,25,26,35,36

NAD27 X: [ ] Y: [ ] Zone: [ ] Search Radius: [ ]

County: [ ] Basin: [ ] Number: [ ] Suffix: [ ]

Owner Name: (First) [ ] (Last) [ ]  Non-Domestic  Domestic  All

WATER COLUMN REPORT 11/11/2008

(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
------------	-----	-----	-----	---	---	---	------	---	---	------------	-------------	------------------------

No Records found, try again

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

WATER COLUMN REPORT 11/11/2008

(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>RG 22431</u>	30N	13W	30	2						100	45	55
<u>SJ 00467</u>	30N	13W	30	4	4					36	21	15

Record Count: 2

TOPO! map printed on 11/11/08 from "New Mexico.tpo" and "Untitled.tpg"

108°17.000' W

108°16.000' W

WGS84 108°15.000' W

36°48.000' N

36°48.000' N

36°47.000' N

36°47.000' N

36°46.000' N

36°46.000' N

108°17.000' W

108°16.000' W

WGS84 108°15.000' W

TN  
11°

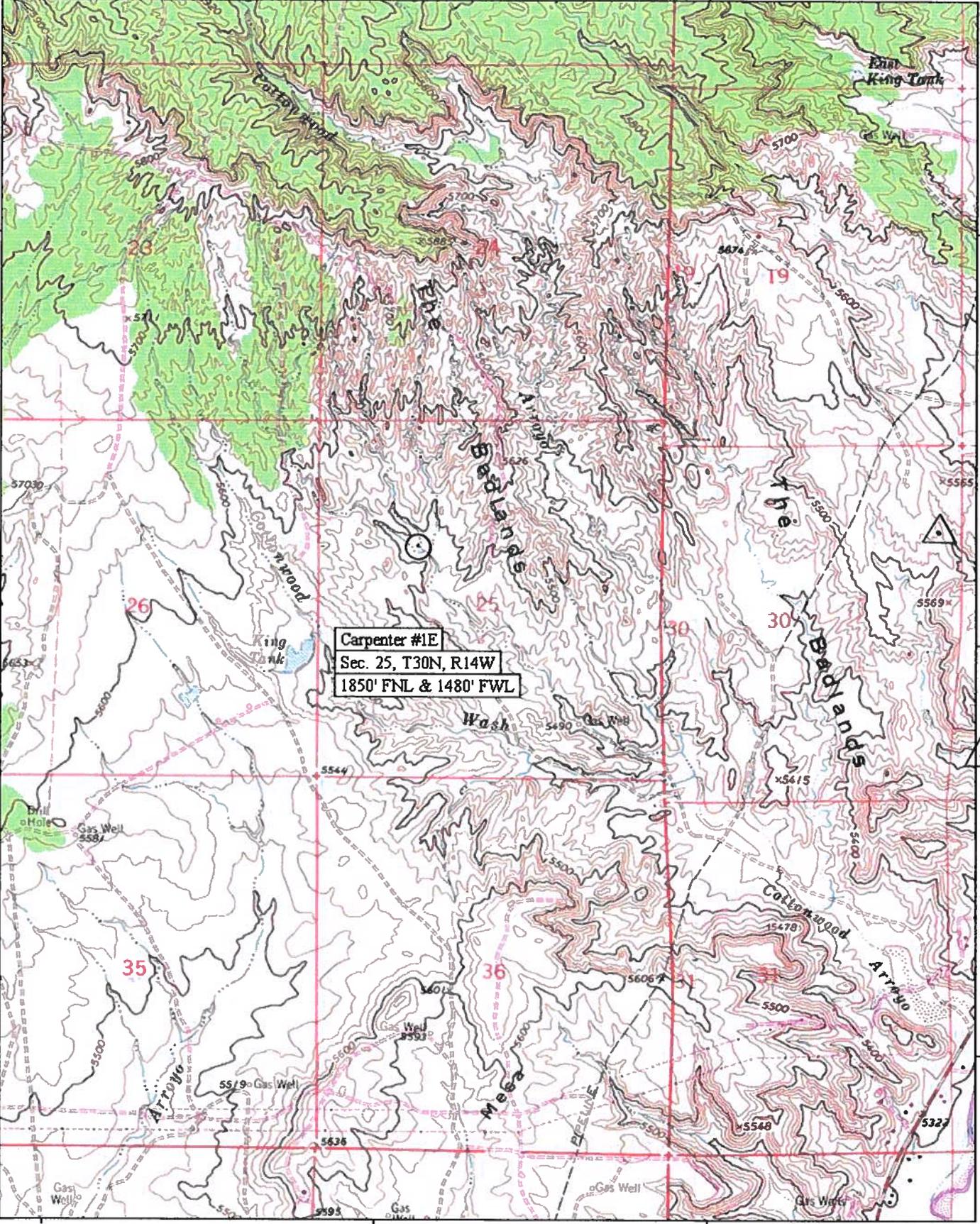
0 1000 FEET 0 500 1000 METERS

Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

EXHIBIT 2.

Released to Imaging: 9/20/2023 10:54:29 AM

Received by OCD: 9/13/2023 1:56:38 PM





New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 30N Range: 14W Sections: 25

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

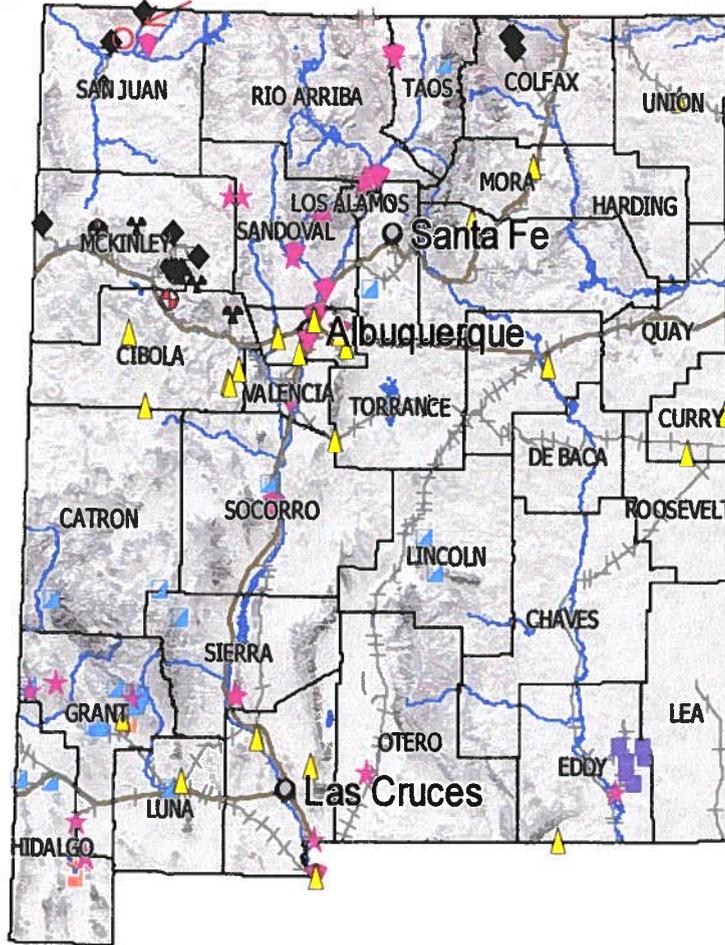
Owner Name: (First) (Last)  Non-Domestic  Domestic  All

WATER COLUMN REPORT 11/11/2008

(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
------------	-----	-----	-----	---	---	---	------	---	---	------------	-------------	------------------------

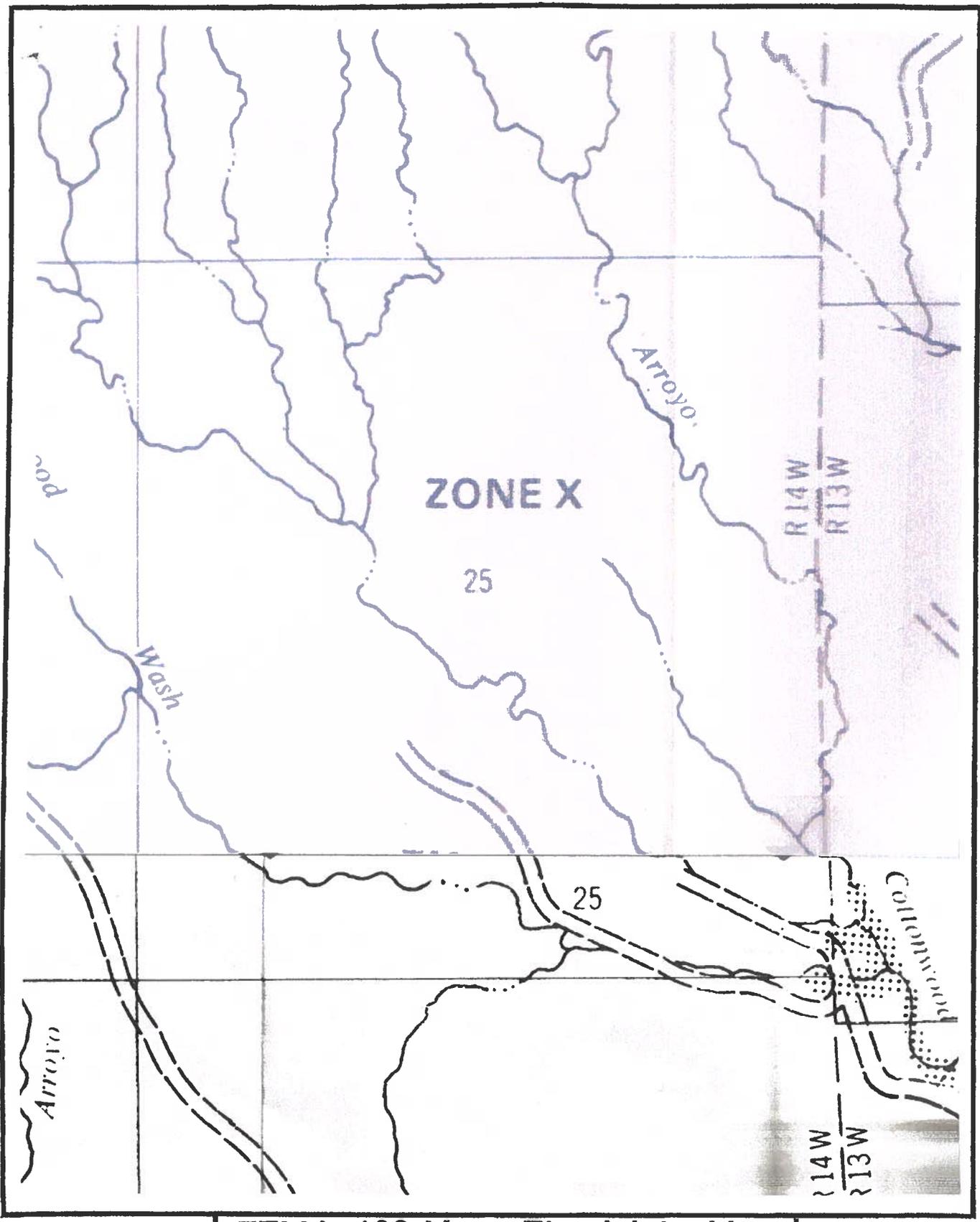
No Records found, try again



Mine, Mills and Quarry Map of New Mexico

Dugan Production Corp.  
Carpenter #1E

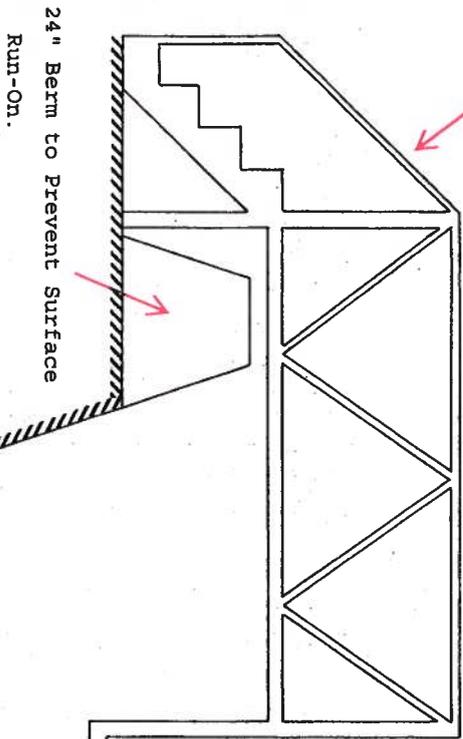
Taken from the New Mexico Energy, Minerals and Natural Resources Department.  
Mining and Minerals Division.



**FEMA 100-Year Floodplain Map**  
**Carpenter #1E**

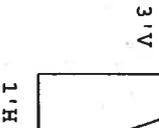
**EXHIBIT 7.**

Walkway/Bridge with Steps and Handrail, Constructed of 2" X 1/8" Angle Iron and Perforated Walk-Way Material.



24" Berm to Prevent Surface Run-On.

Below Grade Tank Vault Wall  
Slope=3:1



Visual Inspection Point

Below Grade Tank Vault-Firm, Level Foundation Free of Rocks, Debris or Irregularities. Slope of Vault Walls Will Be 3'-Vert/1'-Horiz. Pre-Treated Lumber will be used as needed to insure integrity of vault walls.

Steel, Expanded Metal or Chicken Wire for Screening or Netting

3" Load Line

Manual Shut-Off Valve

Ground Level

High Level Shut-Off Valve Wire or 1/4" Tbg Connect to Compressor or Prod Unit. Set for 12" Freeboard.

Liner Constructed of 30-mil PVC or 60-mil HDPE. May have 1/2" Gravel on Top of Liner.

Dugan Production Corp.  
Carpenter #11E

Below Grade Tank-Single Wall, Constructed of 1/4" Carbon Steel, API Rated, Visible Walls and Liner. Tank will have a Minimum 6" Lift Above Underlying Liner and Set-Back at least 24" from Walls of Vault. Tank Volume 95 bbls, Depth 6 Feet

### **Carpenter #1E Below Grade Tank Design and Construction Plan**

The Carpenter #1E below grade tank will be designed and constructed in accordance with the following requirements:

1. Below grade tank will be designed and constructed to contain liquids and solids, prevent contamination of fresh water and protect the public health and environment (Exhibit 7).
2. Stockpile topsoil prior to digging below grade tank vault, keep separate from subsoil and use as final cover and fill when closing below grade tank vault.
3. Sign-12" by 24" with operator name, lease name, well #, location (unit letter, qtr/qtr, Sect., Twp., and Rge.) and emergency phone #'s will be posted on location. Sign will be posted in a location where it can be easily read.
4. Fencing around the Carpenter #1E below grade tank will be constructed and operated in a manner that prevents unauthorized access and shall be maintained in good condition to protect the public and wildlife. Fencing will include a 4-foot hog wire fencing with two strands of barbed wire or top rail of re-bar or pipe on top. See the attached request for Administrative Approval. If the Carpenter #1E below grade tank were located within 1000 feet of a house, school, hospital or church, a chain link fence at least six feet in height with at least two strands of bared wire on top would be constructed.
5. The Carpenter #1E below grade tank will be covered with steel, expanded metal or chicken wire for screening or netting on top of the tank.
6. Carpenter #1E below grade tank will be designed and constructed to ensure the confinement of liquids and prevent unauthorized releases. Pit will be constructed with a firm, level foundation and interior slopes, smooth and free of rocks or sharp edges to prevent punctures, cracks or indentations of the liner or tank bottom. Slope walls of the below grade tank vault will be constructed with a 3' vertical x 1' horizontal slope to prevent collapse of the walls. Dependent on soil conditions, 2"x12" pre-treated lumber will be used as needed to insure integrity of vault walls. Properly operating, high level shut off valve and manual control valves will be installed (valve will close when fluid reaches 12 inches from top of tank) to prevent overflow of tank. Berms (24 inches in height) will be constructed around the perimeter of the below grade tank vault to prevent overflow of the tank vault in the event the high level shut off valve fails and the below grade tank overflows and also prevent the collection and entrapment of surface water.
7. Carpenter #1E below grade tank will be constructed of materials resistant to the tank's particular contents and resistant to damage from sunlight. Tank will be API rated and constructed of carbon steel with a wall thickness of 1/4".
8. Liner will be 30-mil flexible PVC or 60-mil HDPE, string reinforced, impervious material, resistant to UV light, hydrocarbons, salt, acidic or basic liquids. The liner will have a hydraulic conductivity less than  $1 \times 10^{-9}$  cm/sec. Liner compatibility will comply with EPA SW-846 Method 9090A. A specification sheet on properties of liner material to be used will be provided to the NMOCD prior to installation.

9. The Carpenter #1E below grade tank will be constructed with single walled sides and bottom, which will be open for visual inspection for leaks. The below grade tank will be elevated a minimum of 6-inches above the underlying ground surface and set back at least 24" from walls of vault. The below grade tank will be underlain with a geo-membrane liner designed to divert any leaked fluid to a visual inspection point. Liner may be covered with gravel.
10. The Carpenter #1E below grade tank will be equipped with a properly operating automatic high-level shut-off control device (valve will close when fluid reaches 12 inches from top of tank) and manual controls to prevent overflows.
11. Diversionary berms, ditches or sloping will be constructed as necessary to prevent overflow and the collection of surface water entrapment.
12. A walkway/bridge with steps and handrail, will be constructed of 2"x1/8" angle iron and perforated walkway material to provide personnel access to the top of below grade tank.

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 264612

**CONDITIONS**

Operator: DUGAN PRODUCTION CORP PO Box 420 Farmington, NM 87499	OGRID: 6515
	Action Number: 264612
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

**CONDITIONS**

Created By	Condition	Condition Date
vvenegas	NMOCD has reviewed the closure plan submitted by [6515] DUGAN PRODUCTION CORP for a BGT associate with well 30-045-23613 CARPENTER COM #001E [25260]. The closure Plan has been approved with the following conditions: The operator must meet the requirements of the rule, NMAC 19.15.17.13 Closure and Site Reclamation Requirements. If it is determined that a release has occurred, the operator must follow all applicable requirements of 19.15.29 NMAC which includes electronically filing a C-141 Form via OCD Permitting. The BGT closure report must include the automated/assigned Incident Number provided upon C-141 Form submittal. The operator should comply with NMAC 19.15.29 Releases, to delineate, remediate and close the incident.	9/20/2023