## Jones, Brad A., EMNRD

From: Sent: Lindsey, Don (LLIN) [LLIN@chevron.com] Monday, September 12, 2011 8:02 PM

To:

Jones, Brad A., EMNRD

Cc:

Clenney, Laura E; CARROLL, RICHARD V; Toni McKnight; Powell, Brandon, EMNRD

Subject:

Chevron Below Ground Tanks Removed- Sites w/ 2 BGTs

Attachments:

BGTs removed 2011 & 2 BGTs on loc.xlsx

### Brad,

Per our Conversation last week, which included your request to ID which BGTs were removed on sites which had more than one BGT, please see the attached list.

Highlighted in <u>Green</u>, are the sites we identified as having 2 BGTs, and therefore two C-144 packages. I identified in the 4<sup>th</sup> column of the spreadsheet the BGT targeted for removal, so you can reference it from the respective C-144s.

I also added the Jicarilla B-18 and C-16 to the bottom of the list, as the single BGTs from both of those locations were removed as part of those site's total abandonment- all equipment and hardware was removed.

Noting a further Clarification I learned today:

That Rincon 73 and Rincon 303M are wells on the same pad and each had a single (1) BGT.

It appears we Permitted BGT 1 & 2 on Rincon 73, and no BGTs on the 303M.

I made those notes on the attached spreadsheet as well.

\*\*Therefore, we will need to Modify the C-144 for the No 73's BGT #2, and rename it as the lone (BGT 1) on the 303M.

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Also, I am still working on addressing your questions regarding Section 10 of the C-144's. We will likely have the Consultant who constructed the Packages to get involved. I am told there were a few meetings months ago with you on this issue, as the packages were being constructed. Having not been involved myself, I believe at this point we will likely need to get the folks that were involved, engaged again.

Thanks again for working with us to have all of our Closure and Permit documents in proper order.

Don Lindsey
Environmental & Health Specialist
Aztec, NM
Office 505-333-1920
Cell 505-301-5576
<a href="mailto:lin@chevron.com">llin@chevron.com</a>

Double Wall Below Ground		Section 23 T27N R6W	30-039-20157	Rincon 146
Single Wall Above Ground		Section 28 T7N R6W	30-039-25224	Rincon 128M
Double Wall Below Ground		Section 24 T27N R7W	30-039-25343	Shelby Federal 1E
Single Wall Above Ground	BGT 2 = 45 BBI "Buried"	Section 31 T27N R6W	30-039-25433	Rincon 183E
Single Wall Above Ground	BGT 2 = 95 BBI "Buried"	Section 35 T27N R7W	30-039-25361	Rincon 187E
Single Wall Above Ground	BGT 1 = 65 BBI "Buried"	Section 11 T26N R7W	30-039-25396	Rincon 302
Double Wall Below Ground	BGT 2 = 95 BBI "Buried"	Section 26 T27N R7W	30-039-26209	Rincon 169M
Double Wall Below Ground		Section 33 T27N R7W	30-039-06780	Rincon 72
Single Wall Above Ground	BGT 1, 95 BBI "Buried"	Section 34 T27N R7W	30-039-25404	Rincon 306
Double Wall Below Ground	Single BGT 30 BBI- Single wall Buried	Section 36 T27N R7W	30-039-26744	Rincon 303M (Actually permited as Rincon 73 BGT#2)
Double Wall Below Ground	BGT 1, 30 BBI- Single wall Buried	Section 33 T27N R7W	30-039-06824	Rincon 73 (Same Pad & Location as Rincon 303M)
Single Wall Above Ground	BGT2, 45 BBL "Vis Sidewalls"	Section 33 T27N R7W	30-039-25406	Rincon 186M
Single Wall Above Ground	BGT 1 = 95 BBI "Buried"	Section 33 T27N R7W	30-039-25403	Rincon 303
Single Wall Above Ground	BGT 2, 45 BBI "Vis Sidewalls"	Section 35 T27N R7W	30-039-25529	Rincon 193M
Single Wall Above Ground	BGT 2, 95 BBI "Vis Sidewalls"	Section 16 T26N R8W	30-045-24298	State 16-1E
Double Wall Below Ground		Section 14 T29N R13W	30 045-29035	Redfern 1
Double Wall Below Ground		Section 27 T32N R12W	30-045-28892	Horton Federal CB-27 #1
Single Wall Above Ground		Section 2 T31N R7W	30-045-22781	State 3
No Replacement Tank	BGT 1, 65 BLL "Recycled oil"	Section 33 T30N R12W	30-045-29023	Redfern 2
No Replacement Tank		Section 16 T31N R9W	30-045-31993	Wayne Moore Com 2S
No Replacement Tank, we Abdn the Loc		Section 22 T25N R5W	30-039-22840	Jicarilla C-34
New Replacement Tank	BGT to be Removed [As described on C-144]	Location S/T/R	<u>API</u>	<u>Site</u>

Jicarilla C-16	Jicarilla B-18	Additions (BGTs removed as part of Total Location Abandonment)
30-039-05760	30-039-05744	<b>Location Abando</b>
30-039-05760 Section 34 T25N R5W	30-039-05744 Section 31 T25N R 5W	nment)

Only a single BGT- 95 BBI Fiberglass Only a single BGT- 95 BBI Fiberglass

No Replacement Tank, we Abdn the Loc No Replacement Tank, we Abdn the Loc

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
Départment
Départment
1220 South St. Francis Dr.
2010 MR 4 \$affta Fe 28 M 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

<b>_</b>	
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
ne. Dlagea submit	one application (Form C 114) per individual pit closed loop system, below and tank on alternative request

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: Four Star Oil & Gas Company OGRID #: 131944
Address: P.O. Box 36366 Houston, TX 77236
Facility or well name: <u>Jicarilla B 18</u>
API Number: <u>30-039-05744</u> OCD Permit Number:
U/L or Qtr/Qtr Otr/Qtr E Section 31 Township 25N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude 36_359657° Longitude 107_402061° 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: Thicknessmil ☐ 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: Thicknessmil 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: Produced Water
Tank Construction material: _Fiberglass
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: Thicknessmil
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, hinstitution or church)	nospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	ı
☐ Alternate. Please specify Four foot, pipe frame with square wire mesh.	¥
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 of	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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district oproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - Please reference hydrogeologic report and printout from iWATERS database.	☐ 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).	
Please reference the attached topographic map with distance rings. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no watercourses within the distance specified above.	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)	☐ Yes ☒ No ☐ NA
- Please reference the attached aerial photo. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no referenced buildings within the distance specified above.	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Yes ☐ No ☐ NA
<ul> <li>Please reference the attached aerial photo. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no referenced buildings within the distance specified above.</li> </ul>	
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.  - Please reference the attached iWATERS printout. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no wells or springs within the distances specified above.	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☒ No
adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  The site is not within any known incorporated municipal boundaries, please reference the attached topographic map.	☐ Yes ☑ No
Within 500 feet of a wetland.  - Please reference the attached topographic map with distance rings. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at the time, there were no wetlands within the distance specified above	☐ Yes ⊠ No
Within the area overlying a subsurface mine.  - Please reference the attached topographic map	☐ Yes ☑ No
Within an unstable area.  - Please reference the attached topographic map which includes FEMA flood map data. The map indicates the well site is outside of any	102 KA 140
known 100 year floodplains.	☐ Yes ⊠ No
Within a 100-year floodplain FEMA map	

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:	
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 NMA and 19.15.17.13 NMAC	'C
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)	
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 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   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	
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)	
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 G of 19.15.17.13 NMAC	

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S Instructions: Please indentify the facility or facilities for the disposal of liquids, d facilities are required.	teel Tanks or Haul-off Bins Only: (19.15.17.13.E rilling fluids and drill cuttings. Use attachment if n	NMAC) nore than two			
•	Disposal Facility Permit Number:				
•	Disposal Facility Permit Number:				
Will any of the proposed closed-loop system operations and associated activities occ  ☐ Yes (If yes, please provide the information below) ☐ No					
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specifications based upon the appropriate  Re-vegetation Plan - based upon the appropriate requirements of Subsection  Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 NMAC of 19.15.17.13 NMAC	C			
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the comprovided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for	administrative approval from the appropriate dist Bureau office for consideration of approval. Justi	rict office or may be			
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 sign lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	ificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No			
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ☐ No			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring NM Office of the State Engineer - iWATERS database; Visual inspection (or	oring, in existence at the time of initial application.	☐ Yes ☐ No			
Within incorporated municipal boundaries or within a defined municipal fresh wate adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approve	•	☐ Yes ☐ No			
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visua	l 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 Society; Topographic map	& Mineral Resources; USGS; NM Geological	☐ 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 19.15.17.13 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					

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 belie	ef.				
Name (Print): Rodney Bailey Title: Waste & Water Group Lead					
Signature: Date: March 1, 2010					
e-mail address: Bailerg@chevron.com Telephone: (432) 687 7123					
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)					
OCD Representative Signature:  Approval Date: 9/13  Title: OCD Permit Number:	<i>5/ (</i> \				
Title: OCD Permit Number:					
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-loc If different from approved plan, please explain.	op systems only)				
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attact two facilities were utilized.	hment if more than				
Disposal Facility Name: Disposal Facility Permit Number:					
Disposal Facility Name: Disposal Facility Permit Number:	wations?				
Yes (If yes, please demonstrate compliance to the items below) No	erauons?				
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 ina	licate, 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				
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 k belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure p					
Name (Print): Title:					
Signature: Date:					
e-mail address:					

DIR HITCHIOLY SHOUL Well Name & Number: Jiciry 18 B 18 DATE: 7-24-04 API#: 30-039.05744 Initials: () MK Lease #: Quarter/Quarter: 5t NW Section: 31 Township: 25n Range: 5w Lat: 36.359657 Long: 107, 402061 Pit Tank #1: Manufacturer: NP Serial #: N/A DOM: 1/A Size bbl o If N/A – Dimensions: Diameter 12 Height\_ 5 Steel\_\_\_\_ Galvanized\_\_\_\_ Fiberglass  $\searrow$ Material: Tank Configuration: Double Wall\_\_\_ Single Wall (Buried or Exposed Walls) Contents: Produced Water\_\_\_ Condensate\_\_\_ Recycled Oil\_\_ Not Mar Red > Tank Top Covering: Solid/Cone-top\_\_\_\_ Netting\_\_\_ (Solid Fiber ) Secondary Containment: Yes > No\_ Fencing around berm: Yes  $\searrow$  No Fence Type: Cattle Panel\_\_\_\_\_ Field Fence Barbwire Pit Tank #2: Manufacturer:\_\_\_ DOM:\_\_\_\_\_ Serial #: Size bbl ○ If N/A – Dimensions: Diameter\_\_\_\_\_ Height\_\_\_\_ Galvanized Material: Steel Fiberglass\_\_\_\_ Tank Configuration: Double Wall\_\_\_\_ Single Wall\_\_\_ (Buried\_\_\_\_ or Exposed\_\_\_\_Walls) Contents: Produced Water\_\_\_\_ Condensate\_\_\_\_ Recycled Oil Tank Top Covering: Solid/Cone-top\_\_\_\_ Netting\_\_\_ (Solid\_ Fiber\_\_) Secondary Containment: Yes\_\_\_\_ No\_\_\_\_ Fencing around berm: Yes\_\_\_\_ No o Fence Type: Cattle Panel\_\_\_\_ Field Fence\_\_\_\_ Barbwire\_\_\_ Above-Ground Tank #1: Manufacturer:\_\_\_\_ Serial #:\_\_\_\_ DOM:\_\_\_\_\_ Size\_\_\_\_bbl ○ If N/A – Dimensions: Diameter\_\_\_\_\_ Height\_\_\_\_ Galvanized\_\_\_\_ Material: Steel Fiberglass\_\_\_\_ Contents: Produced Water\_\_\_\_ Condensate\_\_\_ (State #\_\_\_\_) Recycled Oil\_\_\_ Secondary Containment: Yes\_\_\_\_ No\_\_\_ Above-Ground Tank #2: Manufacturer:\_\_\_\_\_ Size\_\_\_\_bbl Serial #: DOM:\_\_\_\_ If N/A – Dimensions: Diameter\_\_\_\_\_\_ Height\_\_\_\_ Galvanized\_\_\_\_ Fiberglass\_\_\_ Material: Steel\_\_\_\_ Contents: Produced Water\_\_\_\_ (State #\_\_\_\_\_) Recycled Oil\_\_\_ Secondary Containment: Yes No Above-Ground Tank #3: Manufacturer:\_\_\_\_ DOM:\_\_\_\_ Size\_\_\_\_bbl Serial #:

Height\_\_\_\_\_Fiberglass\_\_\_

o If N/A – Dimensions: Diameter\_\_\_\_

Steel

Secondary Containment: Yes\_\_\_\_ No\_\_\_

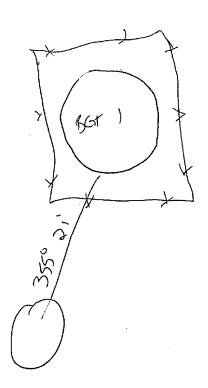
Galvanized\_\_\_

Contents: Produced Water\_\_\_\_ Condensate\_\_\_ (State #\_\_\_\_\_) Recycled Oil

Material:

NORTH





	Y. 100 (1.00			
Schematic Key:				
Separator	SEP	Artificial Lift AL	Condensate Tank	COND
Compressor	СОМ	Meter Run METER F	RUN	
Dehydrator	-DEH	Well Head	Water Tank	WATER
Measure any dis	stance 1000	ft or less of the following:		

• From wellhead to any continuous flowing or significant water course.

• From below-grade tanks to any permanent residence, school, church, hospital, etc.

Chevron/4 Star Locations NWI wetland polygons Water Wells (iWaters) Mines; NMRGIS 1000' Buffer 500' buffer 300' buffer roads Legend Jicarilla B 18
API # 30-039-05744
Company: Four Star Oil & Gas Jicarilla B 18 API # 30-039-05744

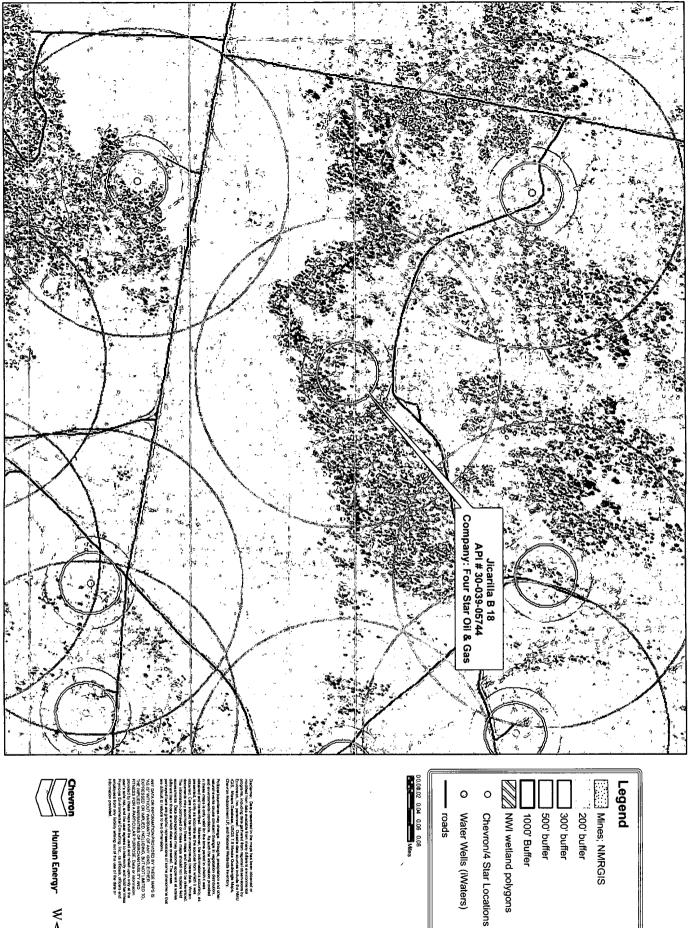








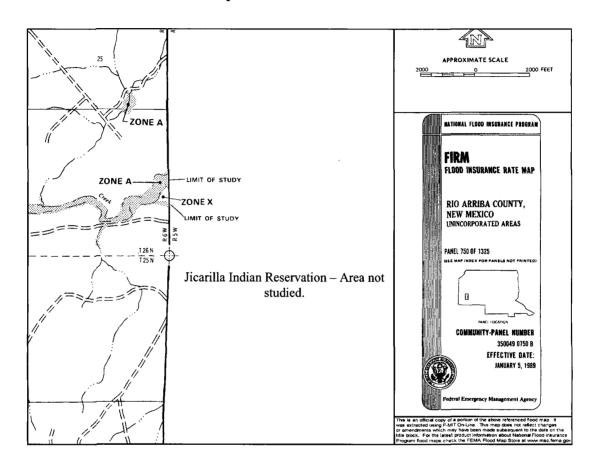
# Jicarilla B 18 API # 30-039-05744





## Jicarilla B #18 API # 30-039-05744 Sec. 31 T25N R5W

## \*\* NO Fema Map/Information available for this location\*\*

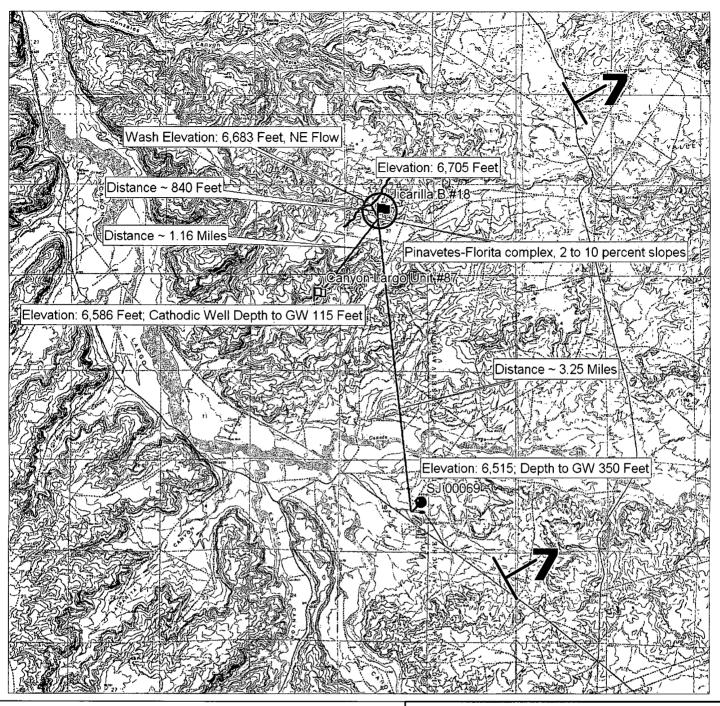


### Jicarilla B #18 Groundwater Statement

The attached iWATERS database search and topographic map shows a water well approximately 3.25 miles to the south east with a depth to groundwater of 350 feet. This water well is labeled on the topographic map with a blue flag. As evidenced on the attached topographical map, the water well is at an elevation approximately 190 feet lower than the Jicarilla B #18 well site, which is represented by a red flag on the topographic map. The attached cathodic well data sheet for a cathodic well drilled in 1995 for the Canyon Largo Unit #87 well site, owned and operated by Burlington Resources, shows that groundwater was encountered at 115 feet. This cathodic well data sheet is stamped as being accepted by the OCD in January of 1996. The Canyon Largo Unit #87 well site is located approximately 1.16 miles south-west of the Jicarilla B #18 well site at an elevation approximately 119 feet lower than the Jicarilla B #18 well site. The Canyon Largo Unit #87 well site is represented on the map with a yellow flag. The soil type at the Jicarilla B #18 well site is a Pinavetes-Florita complex, 2 to 10 percent slope. This is a well to excessively drained soil, characterized by alluvium derived from sandstone and/or eolian deposits derived from sandstone and shale, with a moderate to low available water capacity. The nearest wash is approximately 840 feet to the north-west of the Jicarilla B #18 well site at an elevation of 6,683 feet. This is a north-east flowing ephemeral wash that only exists during periods of heavy precipitation. This wash is second order tributary of Lapis Canyon Wash. The Jicarilla B #18 well site lies in the San Jose Formation Aquifer which dips at 7 degrees to the north-east (Frenzel, 1983); see Topographic Map for aquifer dip direction. The San Jose Formation ranges from less than 200 feet in the west and south to nearly 2,700 feet in the basin center between Cuba and Gobernador (Frenzel, 1983). These findings indicate that the depth to groundwater is greater than 50 feet from the bottom of the BGT at the Jicarilla B #18 well site. All above information, excluding the aguifer dip, was confirmed by a visual inspection performed by Envirotech, Inc.

The San Jose Formation (Tsj) is the youngest Tertiary unit in the San Juan Basin and was named by Simpson (1948, p. 277-283). It is of early Eocene age and as early as 1875 was correlated with the Wasatch Formation in Wyoming. The San Jose is the surface formation in the eastern two-thirds of the San Juan Basin. Although largely exposed in New Mexico, the San Jose also straddles the New Mexico/Colorado State boundaries. It outcrops in its west, south and northeast boundaries in a broad, and in some places irregular, southeasterly trending band in the Blanco Canyon to Largo Canyon area. On the east side, it rises structurally and outcrops in a narrow band along the west face of the Nacimiento Uplift forming the eastern boundary of the San Juan Basin. There are several smaller, isolated remnants of the San Jose Formation west of the central exposure. The San Jose has eroded deeply in some areas and because of differential resistance to erosion of its various sandstone and shale units, produces a large thickness variance and in some places formation of very rugged topographic expression (Baltz, 1967, p. 45). In some places it erodes to horseshoe-shaped badlands and massive cliffs. The San Jose overlays the nonresistant slope-forming Nacimiento Formation (Tn). Thickness of the San Jose ranges from less than 200' at the outcrop on the west and south sides to almost 2700 feet in the the Basin center (Stone, etal, p. 25). The thickness is 1300' or less on the southern part of the Tapicitos Plateau where the San Jose structurally rises and its upper beds are eroded. In the Largo Plains area (Largo Canyon) which marks the western exposure of the preserved San Jose, more than half of the Formation was removed by erosion (Baltz, p. 46). The San Jose Formation contact is that of an angular unconformity surface with the underlying Paleocene-age Nacimiento Formation near the Nacimiento Uplift, but is slightly disconformable to conformable in the Basin center (Stone, et al, p. 25).

The San Jose Formation is comprised of four identifiable rock facies (in ascending order) called the Cuba Mesa, the Regina, the Llaves and the Tapicitos Members. These four members are only present in the far eastern part of the basin (Brimhall, 1973, p. 198). Within the preserved area, only the Cuba Mesa and Regina are widespread throughout the basin. The oldest Member of the San Jose is the Cuba Mesa (150-800 feet thick), which is largely a massive cliff-forming buff and yellow, rusty-weathering cross-bedded arkosic coarse-grained sandstone with lenticular reddish, green and gray shale beds (Baltz, p. 46). The Cuba Mesa is overlain in the southern two-thirds of the area by drab-colored variegated shale and interbedded soft to hard sandstones known as the Regina Member (100 to 1700 feet thick) and overlain in the northern one-third by a thick sequence of sandstone called the Llaves (50 to 1300 feet thick) which in turn intertongues and grades southward into the Regina. In the northeastern part of the area, the upper Llaves Member grades southward and westward into the red silty mudstones, siltstones and interbedded poorly consolidated sandstones of the Tapicitos Member (120-500 feet thick) (Stone, etal, p. 25).



## LEGEND

**7** Aquifer Strike & Dip

V Ephemeral Wash

) Well Area Soil Type

Distance

Topographic Map Jicarilla B #18 Sec 31, Twp 25N, Rge 5W Rio Arrib County, New Mexico

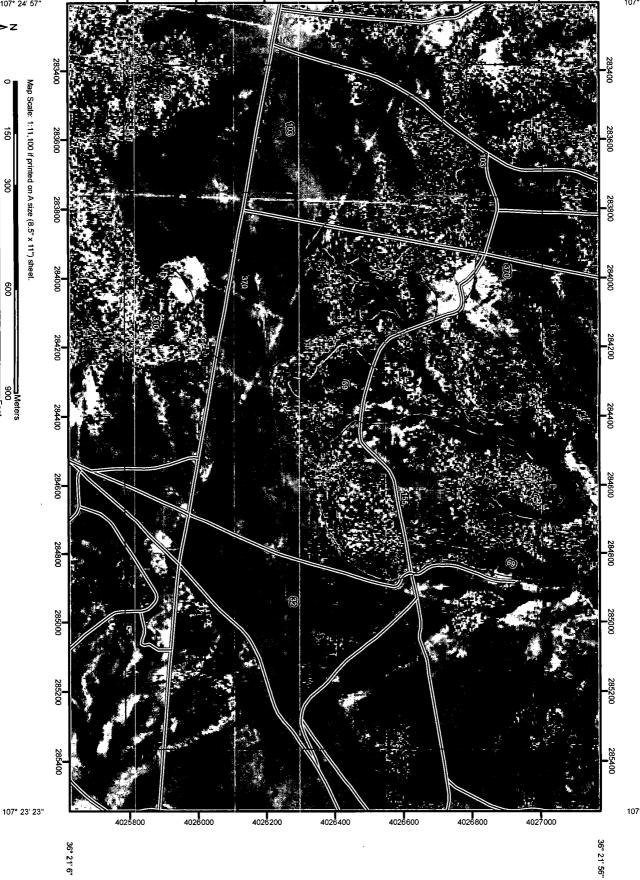
SCA	LE: N	rs		FIGURE NO. 1			REV	
PROJECT NO92270-0342				11001	TIGORE NO.			
				REVISION	ONS			
NO.	DATE	BY			DESCRIP	TION		
MAF	DRWN	JPM		DATE	8/11/09			



5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

36° 21′ 54″

36° 21′ 4"



## Area of Interest (AOI) Soil Map Units Special Point Features Area of Interest (AOI) Soils

Omer	Special Line Features	Gully	Short Steep Slope	Other
◀	Special	8		ß.

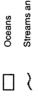


Closed Depression

**Borrow Pit** 

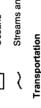
Blowout

Э X Clay Spot



**Gravelly Spot** 

**Gravel Pit** 



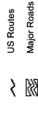


Marsh or swamp

Lava Flow

Landfill

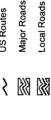
Mine or Quarry



Miscellaneous Water

Perennial Water

Rock Outcrop Saline Spot Sandy Spot



# Streams and Canals

Interstate Highways	
}	
	_



Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Spoil Area

Ħ

Stony Spot

## 10/9/1997 Date(s) aerial images were photographed:

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

# MAP LEGEND

Map Scale: 1:11,100 if printed on A size (8.5" × 11") sheet.

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Source of Map: Natural Resources Conservation Service Coordinate System: UTM Zone 13N NAD83 This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Jicarilla Apache Nation, Parts of Rio Arriba and Sandoval Counties, New Mexico

Survey Area Data: Version 9, Dec 9, 2008

Rio Arriba Area, New Mexico, Parts of Rio Arriba Survey Area Data: Version 10, Dec 19, 2008 and Sandoval Counties Soil Survey Area:

nterpretations that do not completely agree across soil survey area These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels Your area of interest (AOI) includes more than one soil survey area. of detail. This may result in map unit symbols, soil properties, and boundaries.

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
32	Doakum very fine sandy loam, 1 to 6 percent slopes	233.7	39.1%		
69	Pinavetes-Florita complex, 2 to 10 percent slopes	43.3	7.2%		
155	Vessilla-Menefee-Orlie complex, 1 to 30 percent slopes	112.3	18.8%		
310	Rock outcrop-Vessilla-Menefee complex, 15 to 45 percent slopes	14.3	2.4%		
370	Orlie fine sandy loam, 1 to 8 percent slopes	81.4	13.6%		
Subtotals for Soil Survey Area		485.0	81.2%		
Totals for Area of Interest		597.4	100.0%		

Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval Counties (NM650)						
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
103	Orlie fine sandy loam, 1 to 8 percent slopes	82.2	13.8%			
110	Vessilla-Menefee-Orlie complex, 1 to 30 percent slopes	19.9	3.3%			
220	Rock outcrop-Vessilla-Menefee complex, 15 to 45 percent slopes	10.3	1.7%			
Subtotals for Soil Surve	y Area	112.4				
Totals for Area of Interest		597.4	100.0%			

## Jicarilla Apache Nation, Parts of Rio Arriba and Sandoval Counties, New Mexico

## 69—Pinavetes-Florita complex, 2 to 10 percent slopes

## **Map Unit Setting**

Elevation: 6,410 to 6,860 feet

Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 115 to 130 days

## **Map Unit Composition**

Pinavetes and similar soils: 50 percent Florita and similar soils: 40 percent

## **Description of Pinavetes**

### Setting

Landform: Dunes, fans

Landform position (three-dimensional): Side slope, rise

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Alluvium derived from sandstone and/or eolian

deposits derived from sandstone and shale

## Properties and qualities

Slope: 2 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to

very high (6.00 to 20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm) Available water capacity: Low (about 3.6 inches)

## Interpretive groups

Land capability (nonirrigated): 6e Ecological site: Sandy (R035XB002NM)

## Typical profile

0 to 2 inches: Loamy sand 2 to 80 inches: Loamy sand

## **Description of Florita**

## Setting

Landform: Valley sides

Landform position (three-dimensional): Rise

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Alluvium derived from sandstone and/or eolian deposits derived from sandstone and shale

## **Properties and qualities**

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00

to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 5.0

Available water capacity: Moderate (about 8.1 inches)

## Interpretive groups

Land capability (nonirrigated): 6c

Ecological site: Loamy (R035XB001NM)

## **Typical profile**

0 to 31 inches: Fine sandy loam 31 to 41 inches: Sandy loam 41 to 80 inches: Fine sandy loam

## **Data Source Information**

Soil Survey Area: Jicarilla Apache Nation, Parts of Rio Arriba and Sandoval

Counties, New Mexico

Survey Area Data: Version 9, Dec 9, 2008

Soil Survey Area: Rio Arriba Area, New Mexico, Parts of Rio Arriba and Sandoval

Counties

Survey Area Data: Version 10, Dec 19, 2008



## DATA SHEET FOR DEEP GROUND BED CATHODIC. PROTECTION WELLS NORTHWESTERN NEW MEXICO

Operator Mevidian Oil INC. Location: Unit G Sec. 01 Two 24 Rng 06
Name of Well/Wells.or Pipeline Serviced
CANYON LAIGO #111 AND#87
Elevation 6586 Completion Date 6/2/95 Total Depth 425 Land Type P
Casing Strings, Sizes, Types & Depths4/1 Set 99 Of 8"PVC CASING.
NO GAS, WATER, or Boulders Were. ENCOUNTERED DURING CASING.
If Casing Strings are cemented, show amounts & types used <u>Cemented</u> WITH 19 SACKS.
If Cement or Bentonite Plugs have been placed, show depths & amounts used
None
Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. Hit Fresh Water AT 115.
Depths gas encountered: None
Ground bed depth with type & amount of coke breeze used: 425 DepTH.
Used 105 SACKS of ASbury 218A (5250#)
Depths anodes placed: 395,385,375,365,354,345,335,325,315,285,275,250,740,230, +185
Depths vent pipes placed: Surface To 425.
Vent pipe perforations: Bottom 300' DECEIVEN
Remarks: JAN 1 1 1996
OIL CON. DIV.
dist. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal: I-Indian: S-State: P-Fee. If Federal or Indian, add Lease Number.



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

		(quarte	rs aı	re s	ma	allest	to larg	est)	(NAD83 UT	M in meters)		(In feet)	<u> </u>
	Sub		Q	Q	Q					!	Depth C	epth V	Vater
POD Number	basin Use	County	64	16	4	Sec	Tws	Rng	X	Y	Well V	VaterCo	olumn
SJ 00068	DOM	RA	1	2	4	18	24N	05W	284837	4021202*	789	223	566
SJ 00069	IND	RA	1	2	4	18	24N	05W	284837	4021202*	795	350	445
SJ 00074	IND	RA	2	3	3	18	24N	05W	283811	4020835*	1004	216	788
SJ 00211	IND	RA	4	4	4	18	24N	05W	285025	4020601*	800	240	560
									Ave	rage Depth t	o Water:	257 fe	et
•										Minimur	n Depth:	216 fe	et
										Maximur	n Depth:	350 fe	et

**Record Count: 4** 

PLSS Search:

Township: 24N Range: 05W

## Chevron San Juan Basin Below Grade Tank Closure Plan

### **INTRODUCTION**

In accordance with NMAC §§ 19.15.17.9(B)(4) and 19.15.17.13, Chevron (representing Chevron USA Inc, Chevron Midcontinent, L.P., and Four Star Oil & Gas Company) submits this Closure Plan for below grade tanks (BGTs) in New Mexico. This Closure Plan contains standard conditions that attach to multiple BGTs. If needed for a particular BGT, a modified Closure Plan for a proposed alternative closure will be submitted to the New Mexico Oil Conservation Division (NMOCD or the division) for approval prior to closure.

## CLOSURE PLAN PROCEDURES AND PROTOCOLS (NMAC §§ 19.15.17.9(C) and 19.15.17.13).

- 1) Chevron, or a contractor acting on behalf of Chevron, will close a BGT within the time periods provided in NMAC § 19.15.17.13(A), or by an earlier date required by NMOCD to prevent an imminent danger to fresh water, public health, or the environment. NMAC § 19.15.17.13(A).
- 2) Chevron, or a contractor acting on behalf of Chevron, will close an existing BGT that does not meet the requirements of NMAC § 19.15.17.11(I)(1 through 4) or is not included in NMAC § 19.15.17.11(I)(5) within five years after June 16, 2008, if not retrofitted to comply with § 19.15.17.11(I)(1 through 4). NMAC § 19.15.17.13(A)(4).
- 3) Chevron shall close an existing below-grade tank that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not retrofitted to comply with Paragraphs 1) through (4) of Subsection I of 19.15.17.11 NMAC, prior to any sale or change of operator pursuant to 19.15.9.9 NMAC.
- 4) Chevron, or a contractor acting on behalf of Chevron, will close a permitted BGT within 60 days of cessation of the BGT's operation or as required by the transitional provisions of NMAC § 19.15.17.17(B) in accordance with a closure plan that the appropriate division district office approves. NMAC §§ 19.15.17.13(A)(9) and 19.15.17.9(C).
- 5) In accordance with NMAC § 19.15.17.13(J)(1), Chevron will notify the surface owner by certified mail, return receipt requested, of its plans to close a BGT prior to beginning closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance. Chevron will also notify the appropriate division district office verbally or by other means at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the operator's name and the location to be closed by unit letter, section, township and range. If the closure is associated with a particular well, then the notice shall also include the well's name, number and API number. NMAC § 19.15.17.13(J)(2).

- 6) Chevron, or a contractor acting on behalf of Chevron, will remove liquids and sludge from a BGT prior to implementing a closure method and will dispose of the liquids and sludge in a division approved facility. NMAC § 19.15.17.13(E)(1). A list of Chevron currently approved disposal facilities is included at the end of this document.
- 7) The proposed method of closure for this Closure Plan is waste excavation and removal. NMAC §§ 19.15.17.13 (E)(1).
- 8) Chevron, or a contractor acting on behalf of Chevron, shall remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. When required, prior approval for disposal will be obtained. NMAC § 19.15.17.13(E)(2). Documentation regarding disposal of the BGT and its associated liner, if any, will be included in the closure report.
- 9) Waste generated during closure will be handled and disposed of in accordance with applicable laws. NMAC § 19.15.35.8(C)(1)(m) provides that plastic pit liners may be disposed at a solid waste facility without testing before disposal, provided they are cleaned well.
- 10) Chevron, or a contractor acting on behalf of Chevron, will remove on-site equipment associated with a BGT unless the equipment is required for some other purpose. NMAC § 19.15.17.13(E)(3).
- 11) Chevron, or a contractor acting on behalf of Chevron, will test the soils beneath the BGT to determine whether a release has occurred. At a minimum, 5 point composite samples will be collected along with individual grab samples from any area that is wet, discolored, or showing other evidence of a release. Samples will be analyzed for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or EPA method that the division approves, does not exceed 0.2mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250mg/kg; or the background concentration, whichever is greater. Chevron, or a contractor acting on behalf of Chevron, will notify the NMOCD Division District office of its results on form C-141. NMAC § 19.15.17.13(E)(4).
- 12) If Chevron or the division determines that a release has occurred, Chevron will comply with NMAC §§ 19.15.29 and 19.15.30, as appropriate. NMAC § 19.15.17.13(E)(5).
- 13) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in NMAC § 19.15.17.13(E)(4), Chevron will backfill the excavation with compacted, non-waste containing, earthen materials; construct a division prescribed soil cover; re-contour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with NMAC § 19.15.17.13)(G, H and I). NMAC § 19.15.17.13(E)(6).

- 14) As per NMAC § 19.15.17.13(G)(1), once Chevron has closed a BGT or is no longer using the BGT or an area associated with the BGT, Chevron will reclaim the BGT location and all areas associated with it including associated access roads not needed by the surface estate owner to a safe and stable condition that blends with the surrounding undisturbed area. Chevron will substantially restore impacted surface area to the condition that existed prior to its oil and gas operations by placement of soil cover as provided in NMAC § 19.15.17.13(H) (see below), recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography, and re-vegetate according to NMAC § 19.15.17.13(I). NMAC § 19.15.17.13(G)(1).
- 15) Chevron may propose an alternative to the re-vegetation requirement of NMAC § 19.15.17.13(G)(1) if it demonstrates that the proposed alternative effectively prevents erosion, and protects fresh water, human health and the environment. The proposed alternative must be agreed upon in writing by the surface owner. Chevron will submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval. NMAC § 19.15.17.13(G)(2).
- 16) Soil cover for closures where Chevron has removed the pit contents or remediated the contaminated soil to the division's satisfaction will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. NMAC § 19.15.17.13(H)(1).
- 17) Chevron will construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material. NMAC § 19.15.17.13(H)(3).
- 18) As per NMAC § 19.15.17.13(I)(1) and 19.15.17.13(G)(2), Chevron will seed or plant disturbed areas during the first growing season after it is no longer using a BGT or an area associated with the BGT including access roads unless needed by the surface estate owner as evidenced by a written agreement with the surface estate owner, if any and written approval by NMOCD.
- 19) Seeding will be accomplished by drilling on the contour whenever practical or by other division approved methods. Chevron will obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons that prove viability, Chevron will not artificially irrigate the vegetation. NMAC § 19.15.17.13(I)(2).
- 20) Chevron will notify the division when it has seeded or planted and when it successfully achieves re-vegetation. NMAC § 19.15.17.13(I)(5).
- 21) Seeding or planting will be repeated until Chevron successfully achieves the required vegetative cover. NMAC § 19.15.17.13(I)(3).

- 22) When conditions are not favorable for the establishment of vegetation, such as periods of drought, the division may allow Chevron to delay seeding or planting until soil moisture conditions become favorable or may require Chevron to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices. NMAC § 19.15.17.13(I)(4).
- 23) As per NMAC § 19.15.17.13(K), within 60 days of closure completion, Chevron will submit a closure report containing the elements required by NMAC § 19.15.17.13(K) including:
  - i) Confirmation sampling results,
  - ii) A plot plan,
  - iii) Details on back-filling, capping and covering, where applicable, including revegetation application rates and seeding technique,
  - iv) Proof of closure notice to the surface owner, if any, and the division,
  - v) Name and permit number of disposal facility, and
  - vi) Photo documentation.
- 24) The closure report will be filed on NMOCD Form C-144. Chevron will certify that all information in the closure report and attachments is correct and that it has complied with all applicable closure requirements and conditions specified in the approved closure plan. NMAC § 19.15.17.13(K).
- 25) As requested, the following are the current Chevron approved Waste Disposal Sites for the identified waste streams:

## Soils and Sludges

i) Envirotech Inc. Soil Remediation Facility, Permit No. NM-01-0011

## Solids

ii) San Juan County Regional Land Fill (NMAC § 19.15.35.8 items only, with prior NMOCD approval when required)

## Liquids

- i) Key Energy Disposal Facility, Permit No. NM-01-0009
- ii) Basin Disposals Facility, Permit No. NM-01-005.
- 26) These waste disposal sites are subject to change if their certification is lost or they are closed or other more appropriate, equally protective sites become available. Chevron will provide notice if such a change is affected.

## BELOW GRADE TANK (BGT) DESIGN AND CONSTRUCTION PLAN

## SUBMITTED TO:

## ENVIRONMENTAL BUREAU,

## NEW MEXICO OIL CONSERVATION DIVISION

## ON BEHALF OF:

CHEVRON USA INC., CHEVRON MIDCONTINENT, L.P., AND FOUR STAR OIL & GAS

COMPANY

P.O. Box 730

AZTEC, NEW MEXICO 87410

(505) 333-1901

## Chevron San Juan Basin

## Below Grade Tank Design and Construction Plan

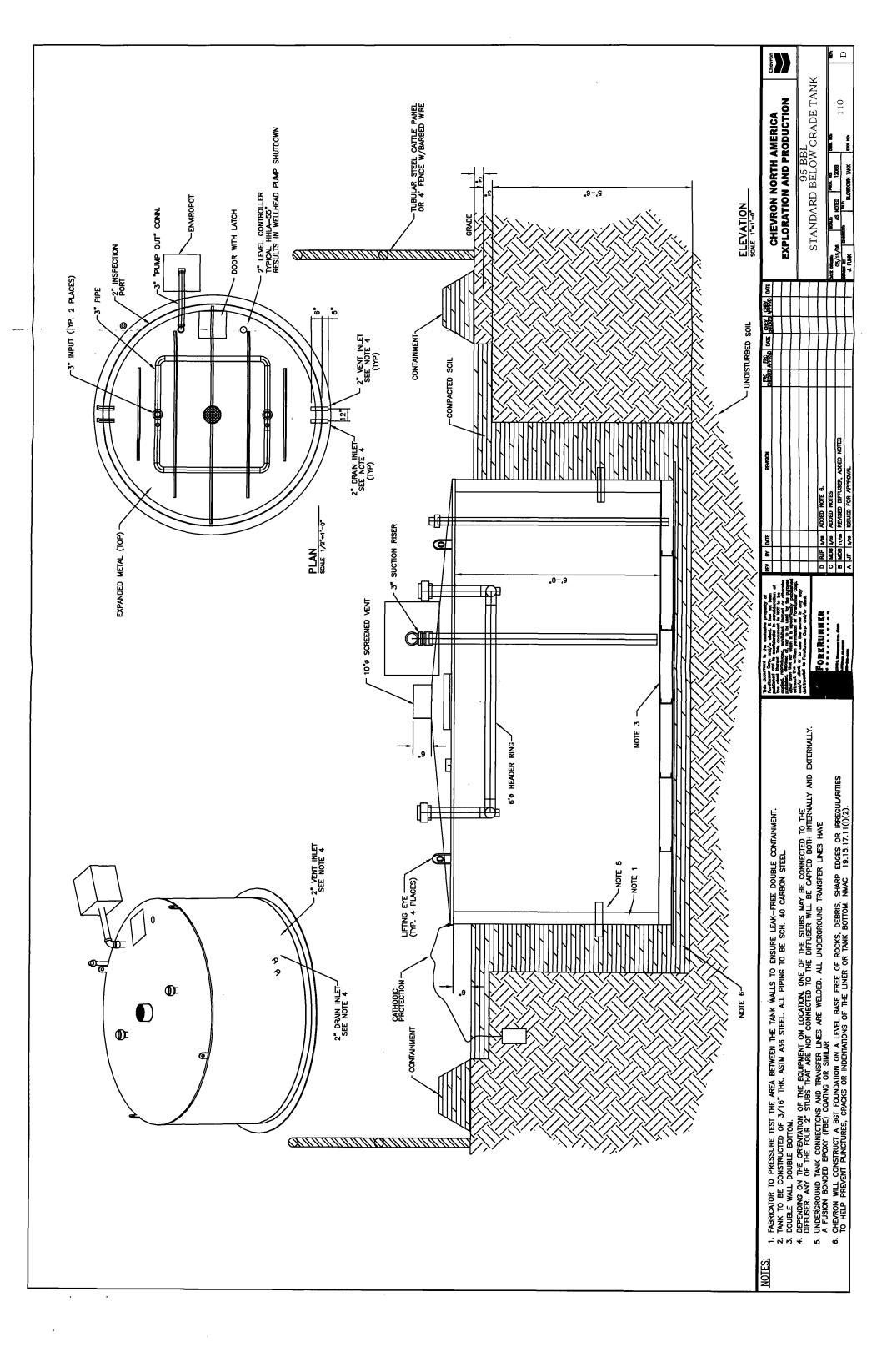
## **INTRODUCTION**

In accordance with NMAC §§ 19.15.17.9(B)(4) and 19.15.17.11 Chevron (representing Chevron USA Inc, Chevron Midcontinent, L.P., and Four Star Oil & Gas Company) submits this Design and Construction Plan for below grade tanks (BGTs) in New Mexico. This Plan contains standard conditions that attach to multiple BGTs.

- 1. Chevron will design and construct a BGT to contain liquids and solids, prevent contamination of fresh water, and protect public health and the environment. NMAC § 19.15.17.11(A).
- 2. Chevron will post an upright sign not less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the BGT, unless the BGT is located on a site where there is an existing well, signed in compliance with NMAC § 19.15.16.8, that is operated by Chevron. Chevron will post the sign in a manner and location such that a person can easily read the legend. The sign will provide the following information: Chevron's name; the location of the site by quarter-quarter or unit letter, section, township and range; and emergency telephone numbers. NMAC § 19.15.17.11(C).
- 3. Chevron will fence or enclose a BGT in a manner that prevents unauthorized access and will maintain the fences in good repair. Fences are not required if there is an adequate surrounding perimeter fence that prevents unauthorized access to the well site or facility, including the BGT. NMAC § 19.15.17.11(D)(1).
- 4. Chevron will fence or enclose a BGT located within 1000 feet of a permanent residence, school, hospital, institution or church with a chain link security fence, at least six feet in height with at least two strands of barbed wire at the top. Chevron will close and lock all gates associated with the fence when responsible personnel are not on-site. NMAC § 19.15.17.11(D)(2).
- 5. Chevron will fence BGTs to exclude livestock 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. NMAC § 19.15.17.11(D)(3). Chevron may install tubular steel cattle panels, as it determines appropriate (photo of cattle

- panel fence submitted to NMOCD, 24 June 2009). As illustrated on the attach photo.
- 6. Chevron will screen the permanent opening on the tank top with expanding steel mesh in order to render it non-hazardous to wildlife, including migratory birds. NMAC § 19.15.17.11(E).
- 7. Chevron's BGTs will be constructed with the design features illustrated on the attached drawing.
- 8. Only double-walled, double-bottomed BGTs will be installed.
- 9. Chevron will use 3/16" carbon steel which is resistant to the anticipated contents and resistant to damage from sunlight. NMAC § 19.15.17.11(I)(1).
- 10. Chevron will construct a BGT foundation on a level base free of rocks, debris, sharp edges or irregularities to help prevent punctures, cracks or indentations of the liner or tank bottom. NMAC § 19.15.17.11(I)(2).
- 11. Chevron will construct a BGT to prevent overflow and the collection of surface water run-on. NMAC § 19.15.17.11(I)(3). Chevron, or a contractor representing Chevron, will install a level control device to help prevent overflow from the BGT and will use berms and/or a diversion ditch to prevent surface run on from entering the BGT. NMAC §§ 19.15.17.11(I)(3), 19.15.17.12(A)(7), and 19.15.17.12(D)(1).
- 12. All BGTs, in which the side walls are not open for visible inspection for leaks, will be double walled with leak detection capability. NMAC § 19.15.17.11(I)(4)(b).
- 13. Chevron, as the operator of a below-grade tank constructed and installed prior to June 16, 2008 that does not meet all the requirements in Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC and is not included in Paragraph (6) of Subsection I of 19.15.17.11 NMAC, is not required to equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC so long as it demonstrates integrity. If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, as illustrated in the approved drawing. Chevron shall comply with the operational requirements of 19.15.17.12 NMAC.

14. Chevron, as the operator of a below-grade tank constructed and installed prior to June 16, 2008 that is single walled and where any portion of the tank sidewall is below the ground surface and not visible, shall equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within five years after June 16, 2008. If the existing below-grade tank does not demonstrate integrity, Chevron shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, as illustrated in the approved drawing. Chevron shall comply with the operational requirements of 19.15.17.12 NMAC.



## BELOW GRADE TANK (BGT) OPERATING AND MAINTENANCE PLAN

## SUBMITTED TO:

## ENVIRONMENTAL BUREAU,

## NEW MEXICO OIL CONSERVATION DIVISION

## ON BEHALF OF:

CHEVRON USA INC., CHEVRON MIDCONTINENT, L.P., AND FOUR STAR OIL & GAS COMPANY

P.O. Box 730

AZTEC, NEW MEXICO 87410

(505) 333-1901

## Chevron

## San Juan Basin

## Below Grade Tank Operating and Maintenance Plan

## **INTRODUCTION**

In accordance with NMAC §§ 19.15.17.9(B)(4) and 19.15.17.12 Chevron (representing Chevron USA Inc, Chevron Midcontinent, L.P., and Four Star Oil & Gas Company) submits this Operating and Maintenance Plan (O&M Plan) for below grade tanks (BGTs) in New Mexico. This O&M Plan contains standard conditions that attach to multiple BGTs. If needed for a particular BGT, a modified O&M Plan will be submitted to the New Mexico Oil Conservation Division (NMOCD or the division) for approval prior to implementation.

## **GENERAL PLAN:**

- 1. Chevron, or a contractor representing Chevron, will operate and maintain a BGT to contain liquids and solids to prevent contamination of fresh water and to protect public health and environment. NMAC § 19.15.17.12(A)(1).
- 2. Chevron will not discharge into or store any hazardous waste in a BGT. NMAC § 19.15.17.12(A)(3).
- 3. If a BGT develops a leak or is penetrated below the liquid surface, Chevron will remove liquid above the damage within 48 hours, notify the appropriate division district office within 48 hours of discovery and will promptly repair the BGT. If a BGT develops a leak Chevron will remove liquid above the damage within 48 hours, notify the appropriate division district office within 48 hours of discovery and will promptly repair or replace the BGT. If replacement is required, the BGT will meet all specification included in the attached approved design drawing and comply with 19.15.17.11(I)(1-4).
- 4. If Chevron as an operator of a below-grade tank that was constructed and installed prior to June 16, 2008 that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC and discovers that the below-grade tank does not demonstrate integrity or that the below-grade tank develops any of the conditions identified in Paragraph (5) of Subsection A of 19.15.17.12 NMAC, then Chevron or their representative shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC and install a below-grade tank that complies with the requirements of Paragraphs

- (1) through (4) of Subsection I of 19.15.17.11 NMAC. NMAC § 19.15.17.12(D)(5). If replacement is required, the BGT will meet all specification included in the attached approved design drawing.
- 5. If Chevron as the operator of the below-grade tank that was constructed and installed prior to June 16, 2008 that does not comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC and equips or retrofits the existing tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, then Chevron or their representative shall visually inspect the area beneath the below-grade tank during the retrofit and document any areas that are wet, discolored or showing other evidence of a release on form C-141. Chevron shall demonstrate to the division whether the evidence of contamination indicates that an imminent threat to fresh water, public health, safety or the environment exists. If the division determines that the contamination does not pose an imminent threat to fresh water, public health, safety or the environment, the operator shall complete the retrofit or the replacement of the below-grade tank. If Chevron or division determines that the contamination poses an imminent threat to fresh water, public health, safety or the environment, then Chevron shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC prior to initiating the retrofit or replacement. NMAC § 19.15.17.12(D)(6). If replacement is required, the BGT will meet all specification included in the attached approved design drawing.
- **6.** Chevron, or a contractor representing Chevron, will use berms and/or diversion ditches to prevent surface run-on from entering the BGT by diverting surface water run-on away from the bermed area. NMAC §§ 19.15.17.12(A)(7) and 19.15.17.12(D)(1).
- 7. Chevron, or a contractor representing Chevron, will not allow a BGT to overflow and will maintain adequate freeboard on existing BGTs by routine inspections utilizing pumper trucks whose routes are timed based on known production rates. Fluid is pumped out on this schedule. For newly constructed BGTs Chevron, or a contractor representing Chevron, will maintain adequate freeboard by installing level control devices that automatically shut off inflow to alleviate potential overtopping. NMAC § 19.15.17.12(D)(1) and 19.15.17.12(D)(4).
- **8.** Chevron, or a contractor representing Chevron, will remove a visible or measurable layer of oil from the fluid surface of a BGT. NMAC § 19.15.17.12(D)(2).
  - **9.** Chevron, or a contractor representing Chevron, will inspect the BGT to assess compliance with NMAC § 19.15.17.12, Operational Requirements, at least once monthly and maintain a written record of each inspection for at least five (5) years. The approved inspection form is attached.

## Chevron: New Mexico Inspection Form for Below Grade Tanks

Inspection	Date:	

elow Grade Tank (BGT) Location:		
Does the BGT have adequate freeboard to prevent overflow;	yes	no
Does the tank have visible leaks or sign of corrosion;	yes	no
Do tank valves, flanges and hatches have visible leaks;	yes	no
Is there evidence of significant spillage of produced liquids;	yes	no
Is this a single of double wall tank;		
Are berms and/or diversion ditches in place to prevent surface		
run-on from entering the BGT;	yes	no
Have visible or measurable layers of oil been removed from		
liquid surface fluid:	ves	` no

## BELOW GRADE TANK (BGT) CLOSURE PLAN

## SUBMITTED TO:

## ENVIRONMENTAL BUREAU, NEW MEXICO OIL CONSERVATION DIVISION

## ON BEHALF OF:

CHEVRON USA INC., CHEVRON MIDCONTINENT, L.P., AND FOUR STAR OIL & GAS

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