### Jones, Brad A., EMNRD

From:

Clenney, Laura E < Laura. Clenney@chevron.com>

Sent:

Thursday, July 05, 2012 1:52 PM

To:

Jones, Brad A., EMNRD

Cc:

Pohl, April E; Barnes, Leslie (LeslieBarnes)

Subject:

Chevron Below Ground Tanks - Closure Request

Brad.

Chevron is requesting to **Close** the following six (6) BGT's in 2012, beginning in mid July. Each site is listed in the table below. Identified in the 5<sup>th</sup> column of the table is the BGT targeted for removal, so you can reference it from the respective C-144's. Please note that at each of the three sites, we plan to close both pits on location.

Each of the C-144's for these six tanks has "Permit of a pit" checked at the top of the C-144 instead of "Closure of a pit", but since the initial submittal of these packages we have identified these tanks for closure.

Well Name	API	Global Positioning Coordinates	ULSTR	Pit Tank/ BGT	
JICARILLA C #026	30-039-05918	36.383036/107.359339	I-21-25N-05W	BGT #1	
JICARILLA C #026	30-039-05918	36.383036/107.359339	I-21-25N-05W	BGT #2	
JICARILLA C #028E	30-039-23434	36.358614/107.352967	E-34-25N-05W	BGT #1	
JICARILLA C #028E	30-039-23434	36.358614/107.352967	E-34-25N-05W	BGT #2	
JICARILLA C #035	30-039-23433	36.383292/107.370308	L-21-25N-05W	BGT #1	
JICARILLA C #035	30-039-23433	36.383292/107.370308	L-21-25N-05W	BGT #2	

Please let me know if you need additional information in order to process the closure of these BGT's.

Thanks,

### Laura Clenney

Facilities Engineer - San Juan FMT Laura.Clenney@Chevron.com

### **Chevron North America Exploration and Production**

Mid-Continent Business Unit 332 ROAD 3100 Aztec, NM 87410 Tel 505 333 1950 Mobile 281 881 0322

# District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1090 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 Santa Fe, NM 87505 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.

Proposed Alternative Method Permit or Closure Plan Application

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
lease 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 nvironment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Four Star Oil & Gas Company OGRID #: 131944
Address: P.O. Box 36366 Houston, TX 77236
Facility or well name: <u>Jicarilla C 35</u>
API Number: 30-039-23433 OCD Permit Number:
U/L or Qtr/Qtr Qtr/Qtr L Section 21 Township 25N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude 36_383292° Longitude 107 370308° 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
4.  ✓ Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: 45 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: ThicknessmilHDPEPVC \_ OtherNone
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.

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, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, the strands of barbed wire at top (Required if located within 1000 feet of a permanent residence).	aospital.
institution or church)  Solution foot height, four strands of barbed wire evenly spaced between one and four feet	v
Alternate. Please specify	•
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
☐ Screen ☑ Netting ☐ Other  ☐ Monthly inspections (If netting or screening is not physically feasible)	
Worlding hispections (11 netting of screening is not physicany leastore)	
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	
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 consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for
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 a 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.  Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	priate district oproval.
- Please reference hydrogeologic report and printout from iWATERS database.	
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)  - 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.	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - 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.	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  - Please reference the attached iWATERS printout. In addition, a field visit was conducted by Envirotech in July 2008 certifying that, at	☐ Yes ☑ No
the time, there were no wells or springs within the distances specified above.  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.	Yes No
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 known 100 year floodplains.	Yes No
Within a 100-year floodplain FEMA map	

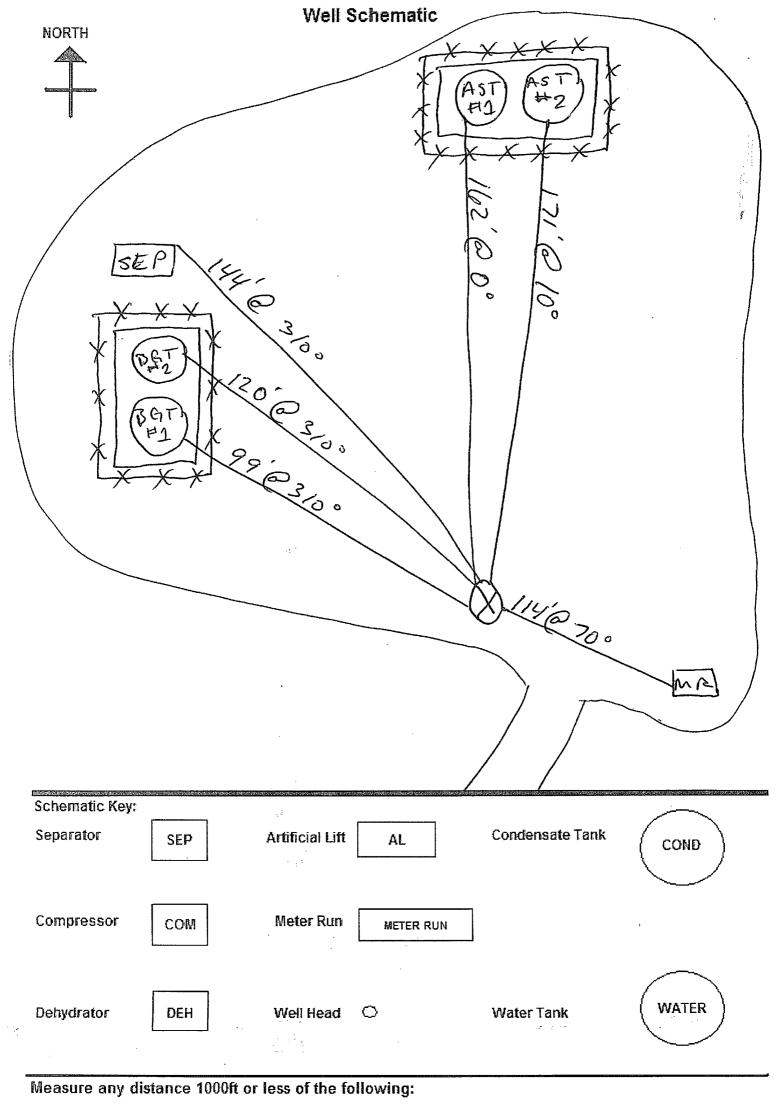
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached.  ☐ Hydrogeologic 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: or Permit Number:
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)
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   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   Riesen Agriculture of 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
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 I of 19.15.17.13 NMAC ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC ☐ Site Reclamation 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 Instructions: Please indentify the facility or facilities for the disposal of liquids, 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 o ☐ Yes (If yes, please provide the information below) ☐ No	ccur on or in areas that will not be used for future serv	vice and operations?				
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	e requirements of Subsection H of 19.15.17.13 NMAO n I 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 provided below. Requests regarding changes to certain siting criteria may requi considered an exception which must be submitted to the Santa Fe Environmenta demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	re administrative approval from the appropriate dist al 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; Database search; USG	ta 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; Da	ta 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						
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						
Within 300 feet from a permanent residence, school, hospital, institution, or churc  - Visual inspection (certification) of the proposed site; Aerial photo; Satellie		☐ Yes ☐ No				
Within 500 horizontal feet of a private, domestic fresh water well or spring that lew attering purposes, or within 1000 horizontal feet of any other fresh water well or - NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ☐ No				
Within incorporated municipal boundaries or within a defined municipal fresh was adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written appro		☐ Yes ☐ No				
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visu	ual 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-Minin	g and Mineral Division	☐ Yes ☐ No				
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	gy & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No				
Within a 100-year floodplain FEMA map		☐ Yes ☐ No				
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the a Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	quirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements of 19. 15.17.13 NMAC quirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC drill cuttings or in case on-site closure standards cann of H of 19.15.17.13 NMAC on I of 19.15.17.13 NMAC	15.17.11 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 belief.
Name (Print): Rodney Bailey	Title: Waste & Water Group Lead
Signature: Signature:	Date: March 1, 2010
e-mail address: Bailerg@chevron.com	Telephone: (432) 687 7123
OCD Approval: Permit Application (including closure plan)	
OCD Representative Signature:	Approval Date: 7/5/12
Title: Enviranne da Enginee	OCD Permit Number:
	prior to implementing any closure activities and submitting the closure report. tys of the completion of the closure activities. Please do not complete this I the closure activities have been completed.
	Closure Completion Date:
22. Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Alternative Closure Method
two facilities were utilized.	ds, drilling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	
Disposal Facility Name:	
Were the closed-loop system operations and associated activities performed Yes (If yes, please demonstrate compliance to the items below)	No
Required for impacted areas which will not be used for future service and a    Site Reclamation (Photo Documentation)   Soil Backfilling and Cover Installation   Re-vegetation Application Rates and Seeding Technique	operations:
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 closures)  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)	wing items must be attached to the closure report. Please indicate, by a check  osure)  Longitude NAD:
25.	
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this cl belief. I also certify that the closure complies with all applicable closure re	osure report is true, accurate and complete to the best of my knowledge and equirements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

Well Name & Number: JiCARIIIA C #35 DATE: 7-25-08 API#: 30 -039 - 23433 Initials: 56 Lease #: Ticarilla 34 Quarter/Quarter: L Section: 21 Township: Z5N Range: 5W

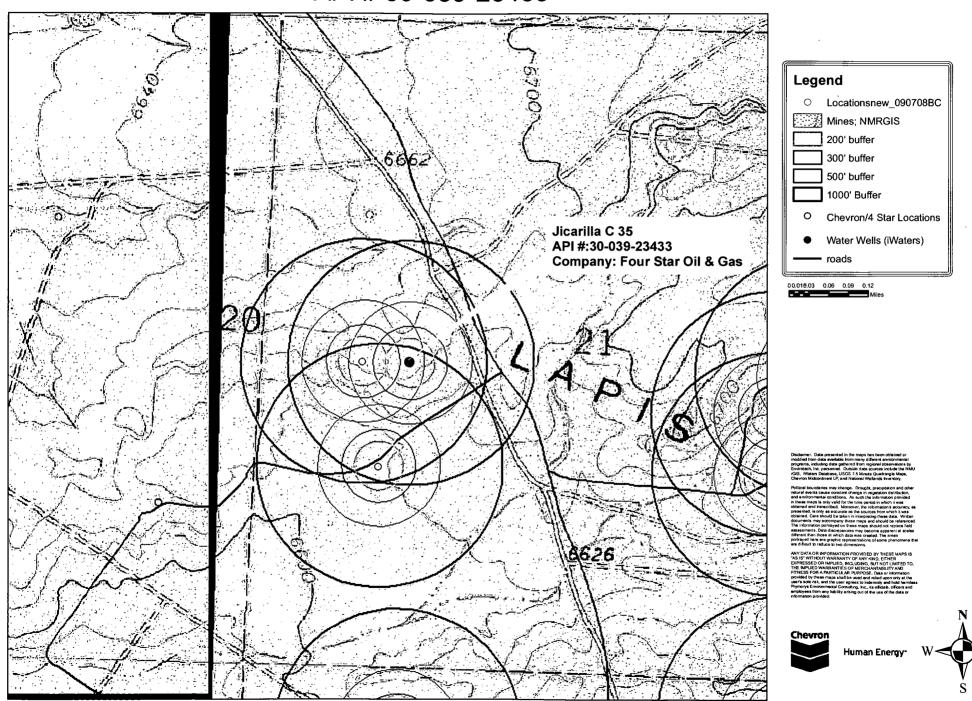
Lat: N36 383272 Long: W107.3703080 Pit Tank #1: Manufacturer: NA DOM: NA Serial #: NA Size NA bbl o If N/A – Dimensions: Diameter 10' Height 4 Material: Steel\_\_\_\_ Galvanized\_\_\_\_ Fiberglass X Tank Configuration: Double Wall\_\_\_\_ Single Wall X (Buried or Exposed Walls) Contents: Produced Water X Condensate Recycled Oil Tank Top Covering: Solid/Cone-top\_\_\_\_ Netting X (Solid Fiber X) Secondary Containment: Yes X No Fencing around berm: Yes X No\_\_\_\_ o Fence Type: Cattle Panel Field Fence X Barbwire Pit Tank #2: Manufacturer: NA DOM: Serial #: NA o If N/A – Dimensions: Diameter \ \O'6'' Height 4' Material: Steel\_\_\_\_ Galvanized\_\_\_\_ Fiberglass X Tank Configuration: Double Wall Single Wall (Buried or Exposed Walls) Contents: Produced Water X Condensate Recycled Oil Tank Top Covering: Solid/Cone-top\_\_\_\_ Netting X (Solid\_ FiberX) Secondary Containment: Yes X No Fencing around berm: Yes o Fence Type: Cattle Panel\_\_\_\_ Field Fence X Barbwire Above-Ground Tank #1: Manufacturer: NATIONAL TANK Co. DOM: NA Serial #: <u>E | 9 6 / 7</u> Size Z/O bbl ○ If N/A – Dimensions: Diameter\_\_\_\_ Height Steel X Galvanized Material: Fiberglass Contents: Produced Water Condensate X (State # 61-3065) Recycled Oil Secondary Containment: Yes X No. Above-Ground Tank #2: Manufacturer: NATIONAL Well Production TANK CO. DOM: NA Serial #: <u>E/9595</u> Size 210 bbl ○ If N/A – Dimensions: Diameter\_\_\_\_\_ Height Steel\_X Galvanized\_\_\_\_ Material: Fiberglass\_\_\_ Contents: Produced Water Condensate X (State # 671-3066) Recycled Oil Secondary Containment: Yes X No\_\_\_\_ Above-Ground Tank #3: Manufacturer:\_\_\_\_ DOM:\_\_\_\_ Size bbl Serial #: ○ If N/A – Dimensions: Diameter\_\_\_\_ Height\_\_\_\_ Material: Steel\_\_\_\_ Galvanized Fiberglass Contents: Produced Water\_\_\_\_ Condensate\_\_\_\_ (State #\_\_\_\_\_) Recycled Oil\_\_ Secondary Containment: Yes No



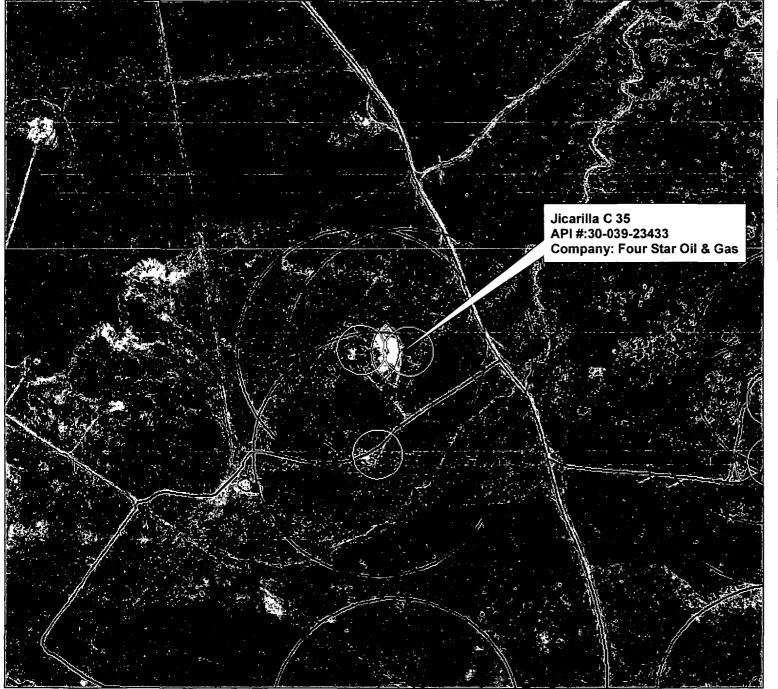
From wellhead to any continuous flowing or significant water course.

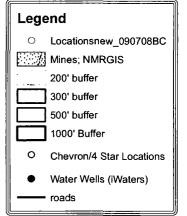
From below-grade tanks to any permanent residence, school, church, hospital, etc.\_\_\_\_

### Jicarilla C 35 API # 30-039-23433



### Jicarilla C 35 API # 30-039-23433





bedamer. Data presented in the maps has been obtained or nonotified from data available from many different environmental wogenes, including data gethered from regional observations by invotech, the personnel. Outside data sources include the NM GIS, Whaters Detablase, USGS 7.5 Minute Quadragle Maps, theyron discontinent IP, and NS Minute Wilderins to weren.

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related acceleration may configure the configuration and other and servicemental conditions. As such the information provided in these means is only valid for the time period in which it was obtained and throughold. Moreover, the information provided in these means is only valid for the time period in which it was obtained and throughold. Moreover, the information accuracy, as preserved, it only as accurate as the sources from which it was observed. The information portrayed on these means should not replace fall occurrents may accompany free are made with bould be referred. The information portrayed on these means should not replace fall executions that the contrast of the configuration of th

ANY DATA OR INFORMATION PROMIDED BY THESE MAPS IS "ASIS "WITHOUT WARRANTY OF ANY KND, ETHER DEPRESSED OR HIPLED, INCLUDING, BUT NOT LIMITED TO, SEED OF METHOD, INCLUDING, BUT NOT LIMITED TO, SEED OR MATTER AND THE SEED OF METHOD TO METH

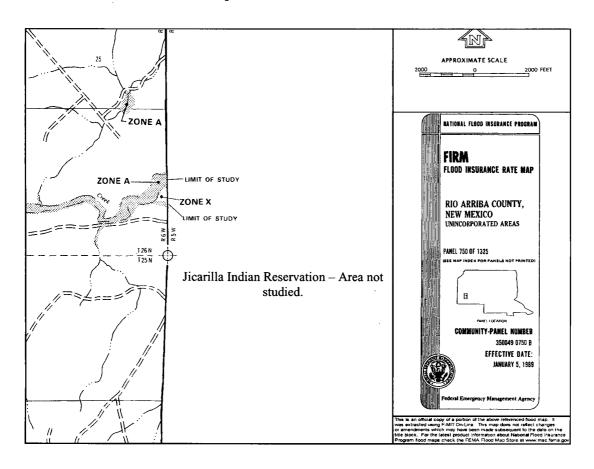


Human Energy W



### Jicarilla C # 35 API # 30-039-23433 Sec. 21 T25N R5W

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

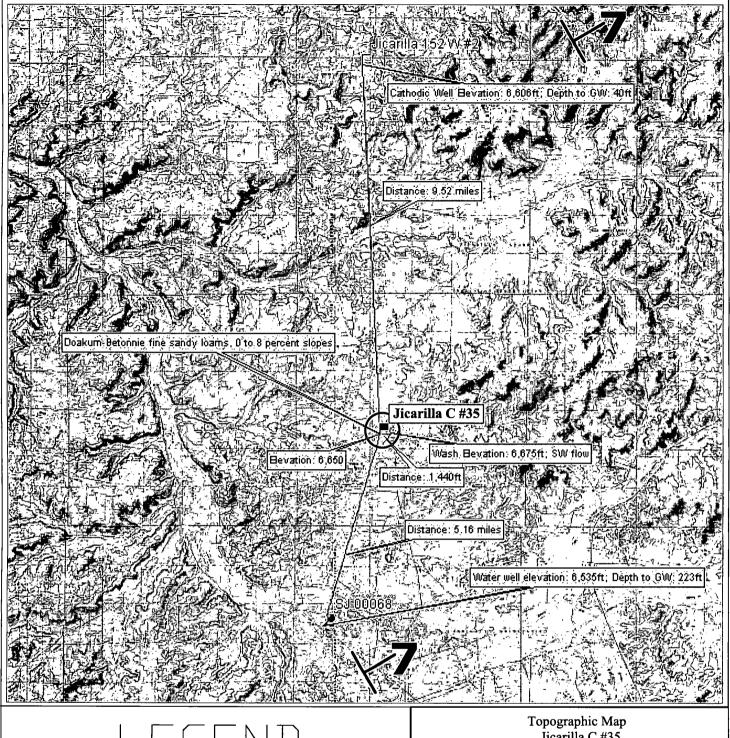


### Jicarilla C #35 Groundwater Statement

The attached iWATERS database search and topographic map shows a water well approximately 5.16 miles to the southwest with a depth to groundwater of 223 feet. This water well is labeled on the topographic map with a red point. As evidenced on the attached topographic map, the water well is at an elevation approximately 115 feet lower than the Jicarilla #35 well site, which is represented by a blue flag on the topographic map. The attached cathodic well data sheet for a cathodic well drilled in 1985 for the Jicarilla 152 W #2 well site, owned and operated by Energen Resources Corporation, indicates that groundwater was encountered at 40 feet. This cathodic well data sheet is stamped as being accepted by the OCD in May of 1991. The Jicarilla 152 W #2 well site is located approximately 9.52 miles to the north of the Jicarilla C #35 well site at an elevation approximately 44 feet lower than the Jicarilla C #35 well site. The Jicarilla 152 W #2 well site is represented on the map by a yellow flag. The soil type at the Jicarilla C #35 well site is a Doakum-Betonnie fine sandy loams, with 0 to 8 percent slopes. This is a well drained soil, characterized by eolian deposits derived from sandstone and shale and/or slope alluvium derived from sandstone and shale, with a moderate to high available water capacity. The nearest wash is approximately 1,440 feet to the east of the Jicarilla C #35 well site at an elevation of 6,675 feet. This is a southwest flowing ephemeral wash that only exists during periods of heavy precipitation. This wash is a second order tributary of the Largo Wash. The Jicarilla C #35 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 give definitive proof that the depth to groundwater is greater than 50 feet from the bottom of the BGT at the Jicarilla C #35 well site. All above information, excluding the aquifer 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).



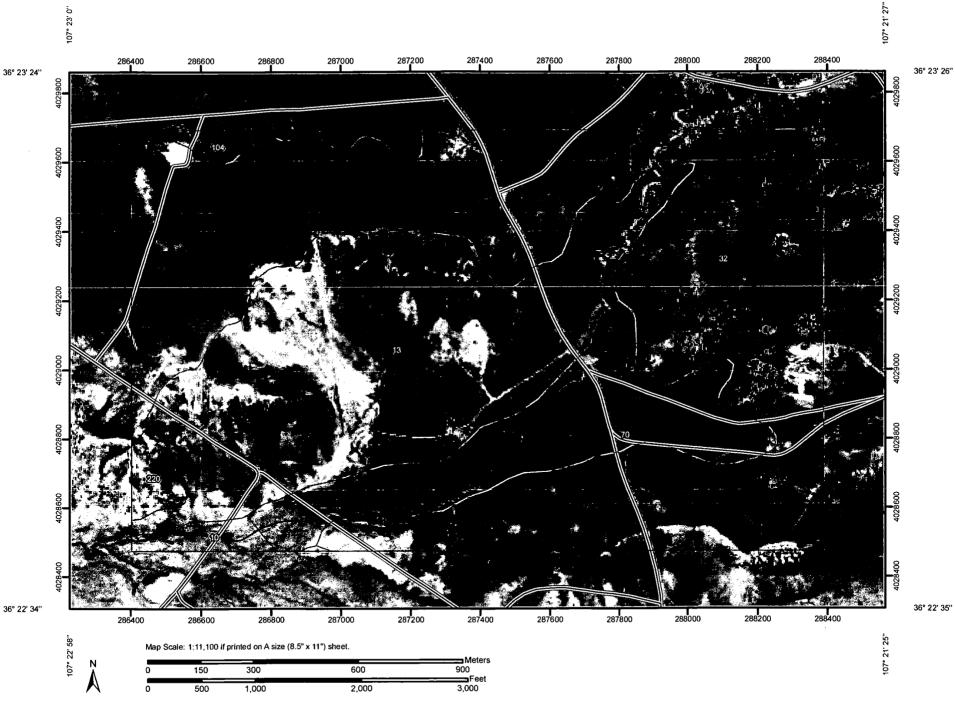
### LEGEND

Topographic Map
Jicarilla C #35
Sec 21, Twp 25N, Rge 5W
Rio Arriba County, New Mexico

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### MAP LEGEND

### Area of Interest (AOI)

Area of Interest (AOI)

### Soils

Soil Map Units

#### **Special Point Features**

- Blowout  $\Theta$
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- **Gravelly Spot**
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot

- Wet Spot
- Other

#### Special Line Features

- Gully
- Short Steep Slope

Very Stony Spot

Other

### 霐 **Political Features**

Cities

#### **Water Features**

- Oceans
- Streams and Canals

#### Transportation

- <del>133</del>
- Rails
- - Interstate Highways
- 圂
- **US Routes** Major Roads

#### Local Roads

### MAP INFORMATION

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

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.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov 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

Date(s) aerial images were photographed: 10/9/1997; 10/5/1997

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

### **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10	Elias-Canyada-Sparank complex, saline, sodic, 0 to 3 percent slopes	7.2	1.2%
13	Doakum-Betonnie fine sandy loams, 0 to 8 percent slopes	183.4	30.7%
32	Doakum very fine sandy loam, 1 to 6 percent slopes	316.8	53.1%
70	Blancot-Councelor-Tsosie complex, 0 to 5 percent slopes	73.0	12.2%
104	Doakum-Oro complex, 0 to 5 percent slopes	9.1	1.5%
220	Skyvillage-Eslendo-Rock outcrop complex, 3 to 35 percent slopes	7.1	1.2%
Totals for Area of Intere	est	596.5	100.0%

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

### 13—Doakum-Betonnie fine sandy loams, 0 to 8 percent slopes

### **Map Unit Setting**

Elevation: 6,560 to 6,960 feet

Mean annual precipitation: 10 to 16 inches Mean annual air temperature: 47 to 50 degrees F

Frost-free period: 115 to 130 days

### **Map Unit Composition**

Betonnie and similar soils: 45 percent Doakum and similar soils: 45 percent

### **Description of Doakum**

### Setting

Landform: Swales on dunes

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest, dip

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

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

eolian deposits derived from sandstone and shale

### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/

cm)

Sodium adsorption ratio, maximum: 10.0

Available water capacity: High (about 9.0 inches)

### Interpretive groups

Land capability (nonirrigated): 6c Ecological site: Loamy (R035XB001NM)

### Typical profile

0 to 4 inches: Very fine sandy loam 4 to 12 inches: Sandy clay loam 12 to 53 inches: Very fine sandy loam 53 to 80 inches: Very fine sandy loam

### **Description of Betonnie**

### Setting

Landform: Knolls

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Crest

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

Parent material: Eolian deposits derived from sandstone

### **Properties and qualities**

Slope: 3 to 8 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 7.2 inches)

### Interpretive groups

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

### **Typical profile**

0 to 4 inches: Fine sandy loam 4 to 17 inches: Fine sandy loam 17 to 50 inches: Fine sandy loam 50 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

. 1108

### DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC.	ocation: Unit NE Sec. 5 Twp 26 Rng 5
Name of Well/Wells or Pipeline Service	d JICARILLA 152 W #2
	cps 1806w
Elevation 6606' Completion Date 10/22/85	Fotal Depth 300' Land Type* N/A
Casing, Sizes, Types & Depths	_
If Casing is cemented, show amounts &	types usedN/A
If Cement or Bentonite Plugs have been	placed, show depths & amounts used
N/A	
Depths & thickness of water zones with	description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc.	
•	
Depths gas encountered: N/A	
Type & amount of coke breeze used:	N/A
Depths anodes placed: 265', 250', 240', 230	', 220', 210', 200', 190', 180', 170!
Depths vent pipes placed: N/A	DECEIVE
Vent pipe perforations: 280'	M
Remarks: /gb #1	MAY 31 1991
	OIL CON, DIV.

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.

<sup>\*</sup>Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

FM 07-02:3 (Rev. 6-82)\*

### WELL CASING-CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach He	rreso).		-	Co	ompletion D	ate/0-22	85
CPS #	Well Name, Line or Plant	4	Work Order #	Static . (	5 5	Ins Union Check	
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# 11 # 12	# 13	# 14 # 15	# 16	# 17	# 18	# 19	± 20
Anode Output (Amps) # 11 # 12	# 13	# 14# 15	# 16	# 17	# 18	# 19	,    # 20
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1 1 1 Form 22-2 (Rev. 5-79) EL PASO NATURAL GAS COMPANY DRILLING DEPARTMENT DAILY DRILLING REPORT LEASE WELK NO. موهد 19 CONTRACTOR RIG NO. REPORT NO. DATE CD. MORNING DAYLIGHT EVENING 0 Burnt Total Men In Crew Driller Total Men In Crew Driller Total Men In Crev FORMATION FROM FORMATION WT-BIT R.P.M. FROM TO FORMATION WT-BIT R.P.M. 14 180 NO. DC SIZE NO. DC\_\_\_\_SIZE\_\_\_\_LENG. 'I FNG NO. DC \_\_\_\_SIZE \_ LENG. BIT NO. BIT NO. NO. DC \_\_\_\_ SIZE \_ NO. DC\_\_\_\_SIZE \_\_\_\_LENG.\_ NO. DC\_\_\_\_SIZE\_ LENG. SERIAL NO. STANDS SERIAL NO. SERIAL NO. STANDS STANDS 解グーマル コンフェート SIZE- 「マー・マラー・フィ SINGLES SIZE SINGLES SIZE SINGLES TYPE DOWN ON KELLY TYPE TYPE DOWN ON KELLY DOWN ON KELLY MAKE TOTAL DEPTH MAKE TOTAL DEPTH TOTAL DEPTH MAKE MUD RECORD MUD, ADDITIVES USED AND RECEIVED " MUD RECORD MUD, ADDITIVES USED AND RECEIVED MUD RECORD MUD, ADDITIVES USED AND RECEIVED Time ... 2 Wt. 5 Vis. Time T Wi. Vis. Time Wt. Vis. **新海路** 15.16 25.5 100 · .1 · 1 ' 1 FROM TO. F TIME BREAKDOWN FROM TIME BREAKDOWN TIME BREAKDOWN TO FROM TO **建设设计** 电影响 **新安全的 医克克斯 着脑头的**。1883年1月15日 **斯特国的教育和** 2017 **建设有的,这种种的** 關係就經過和對於 REMARKS - 2 et Water REMARKS ~ REMARKS -**复将的工作和**实际的动态。 - 1 MENTEN COMPANY OF THE 141 **图图图图 机**图 15 2 5 5 13:49:4 ----100 3.5 《網網/習》 THE PROPERTY OF THE PARTY OF TH 2 6 4 19 MANAGEMENT AND THE SAME 1 11 SIGNED: Toolpusher

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REMAR	KS:						7) (1867)						· · · · · · · · · · · · · · · · · · ·			

CHARLES TON



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

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

			(quarters are smallest to largest)				(NAD83 UTM in meters)			(In feet)					
	Sub		``,	Q	Q	Q				•		. [	Depth [	Depth	Water
POD Number	basin	Use	County	64	16	4	Sec	Tws	Rng	X	ΥΥ	Distance	-	-	Column
SJ 00068	I	DOM	RA	1	2	4	18	24N	05W	284837	4021202*	8288	789	223	566
SJ 00069		IND	RA	1	2	4	18	24N	05W	284837	4021202*	8288	795	350	445
RG 70162	1	DOM	TA							295149	4025729	8450	150	95	55
SJ 00211		IND	RA	4	4	4	18	24N	05W	285025	4020601*	8809	800	240	560
SJ 00201		OFM	RA		1	4	03	25N	06W	280124	4034064*	8810	1346	500	846
SJ 00681		STK	RA	4	1	4	21	25N	06W	278527	4029227*	8868		80	
SJ 00074		IND	RA	2	3	3	18	24N	05 <b>W</b>	283811	4020835*	8995	1004	216	788
SJ 00681 12		IRR	RA	4	4	4	33	25N	06 <b>W</b>	278833	4025662*	9220	435		
										Average Depth to Water:			243	feet	
											Minimum Depth:			80 feet	
												Maximum	Depth:	500	feet

**Record Count: 8** 

UTMNAD83 Radius Search (in meters):

Easting (X): 287394

Northing (Y): 4029086

Radius: 10000

\*UTM location was derived from PLSS - see Help

## 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

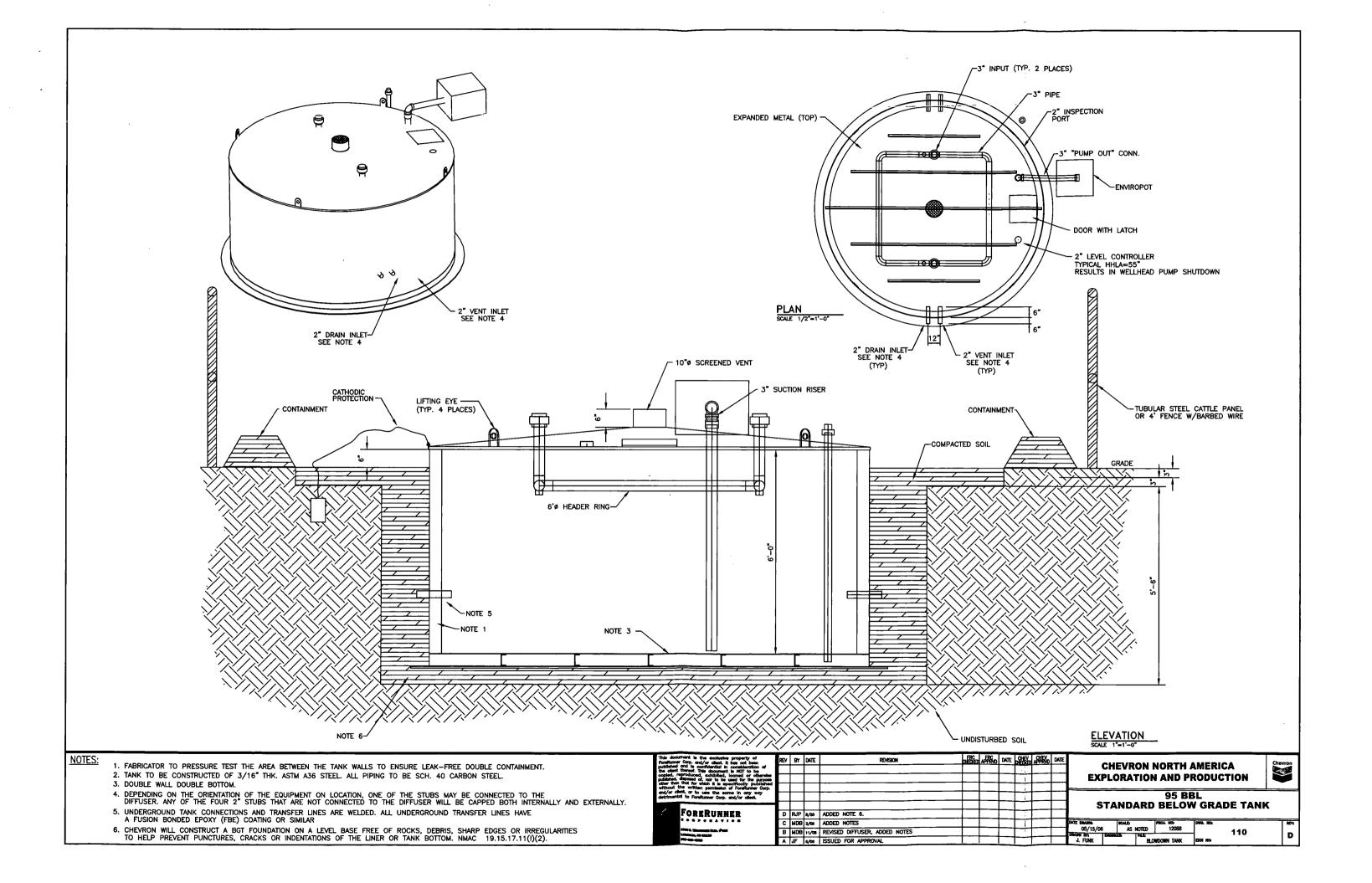
### INTRODUCTION

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:

Belov	v Grade Tank (BGT) Location:		
D	oes the BGT have adequate freeboard to prevent overflow;	yes	no
D	oes the tank have visible leaks or sign of corrosion;	yes	no
D	o tank valves, flanges and hatches have visible leaks;	yes	no
Is	there evidence of significant spillage of produced liquids;	yes	no
ls	this a single of double wall tank;		·
Α	re berms and/or diversion ditches in place to prevent surface		
	run-on from entering the BGT;	yes	no
Н	ave visible or measurable layers of oil been removed from		
	liquid surface fluid;	yes	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

COMPANY
P.O. Box 730

AZTEC, NEW MEXICO 87410

(505) 333-1901

### 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)

### <u>Liquids</u>

- 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.