<u>IMAGEFRAME</u> 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 Di , Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr.

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 Santa Fe, NM 87505

5463 Proposed Alternative Method Promite or Classes 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
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
Operator Noble Energy Inc. OGRID # 234550
Address 5802 US Highway 64, Farmington, N.M. 87401
Facility or well name Alberding 1
API Number 3004511104 OCD Permit Number
U/L or Qtr/Qtr A Section 3 Township 31N Range 13W County San Juan
Center of Proposed Design Latitude 36 93390868 Longitude 108 18459210 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
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 ☐ Other32A 25262>
☐ Lined ☐ Unlined Liner type Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Below-grade tank: Subsection I of 19 15 17 11 NMAC
Volume 40 bbl Type of fluid Water \\ \overline{\mathbb{N}} \cong \text{CONS. DIV DIGG.} \\ \overline{\mathbb{N}} \\ \over
Secondary containment with leak detection Visible sidewalls only Other Icak detection
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Otherleak detection
Liner type Thickness N/Amil
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, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate Please specify Wire mesh fence with a pipe railing	hospital,
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)	
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 approoffice 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 dry above-grade tanks associated with a closed-loop system.	ppriate district approval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	⊠ Yes □ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark) - Topographic map, Visual inspection (certification) of the proposed site	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	Yes No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to permanent pits) - Visual inspection (certification) of the proposed site, Acrial photo, Satellite image	☐ Yes ☐ No ☑ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application NM Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site	⊠ Yes □ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written approval obtained from the municipality	☐ Yes 🖾 No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☑ No
 Within an unstable area. Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map 	☐ Yes ☒ No
Within a 100-year floodplain - FEMA map	⊠ Yes □ No

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
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 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 Assessment - based upon the appropriate requirements of 19 15 17 11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19 15 17 11 NMAC Nuisance or Hazardous Odors, including H ₂ 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)
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 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 of Yes (If yes, please provide the information below) ☐ No	occur on or in areas that will not be used for future services.	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	te requirements of Subsection H of 19 15 17 13 NMA(in Lof 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 requesting considered an exception which must be submitted to the Santa Fe Environment demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	ire 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, Da	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	ata 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, Da	ata obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other si lake (measured from the ordinary high-water mark) - Topographic map, Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sınkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or churc - Visual inspection (certification) of the proposed site, Aerial photo, Satelli		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that le watering 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 wa 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-Minim	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 10 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 5 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 H of 19 15 17 13 NMAC of 10 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 a	and complete to the best of my knowledge and belief
Name (Print) <u>Jean Muse</u> Titl	e Regulatory Compliance
Signature	
e-mail address jmusc@nobleenergyinc com Tele	ephone (866) 404-3161
OCD Approval: Permit Application (including closure plan)	(only) OCD Conditions (see attachment)
OCD Representative Signature: Kolly	Approval Date: 4/26/2012
Deputy Oil & Gas Inspector, Title: District #3 Of	CD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of Instructions: Operators are required to obtain an approved closure plan prior to im The closure report is required to be submitted to the division within 60 days of the c section of the form until an approved closure plan has been obtained and the closure	oplementing any closure activities and submitting the closure report. The submitting the closure activities. Please do not complete this
	Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain	Closure Method Waste Removal (Closed-loop systems only)
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Instructions: Please indentify the facility or facilities for where the liquids, drilling two facilities were utilized. Disposal Facility Name	at Utilize Above Ground Steel Tanks or Haul-off Bins Only: fluids and drill cuttings were disposed. Use attachment if more than isposal Facility Permit Number
	isposal Facility Permit Number
Were the closed-loop system operations and associated activities performed on or in a Yes (If yes, please demonstrate compliance to the items below) No	
Required for impacted areas which will not be used for future service and operations Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	
24 Closure Report Attachment Checklist: Instructions: Each of the following items	must be attached to the closure report. Please indicate, by a check
mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	
On-site Closure Location Latitude Longitude	170 L 1727 L 1703
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure reportion belief. I also certify that the closure complies with all applicable closure requirements.	
Name (Print)	Title
Signature	Date
e-mail address	Telephone

Noble Energy, Inc.

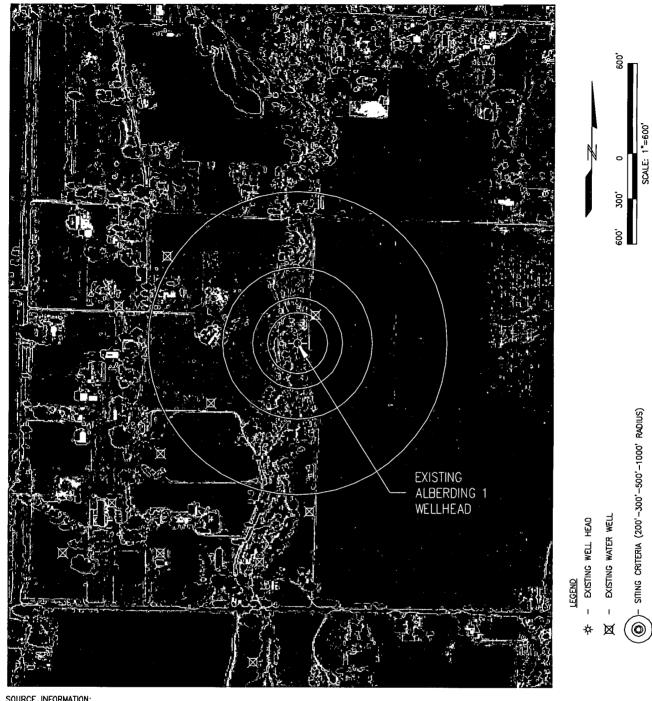
Below-grade Tank

Alberding 1

San Juan Basın Locations

The following is a discussion of the siting criteria contained in New Mexico Administrative Code 19.15.17.10. as they pertain to Noble's below-grade tank located on the Alberding 1 well pad. Water well data (iWATERS-New Mexico Office of the State Engineer) suggests that ground water is less than 50 feet below the bottom of the below-grade tank. Visual observation of aerial photography (La Plata, NM SE USGS DOQQ) and the La Plata Quadrangle Topographic Map suggests the proposed below-grade tank is within 200 feet of a significant watercourse (La Plata River). Water well data (iWATERS-New Mexico Office of the State Engineer) suggests that one domestic water well exists within the 1000 foot buffer zone. The Alberding 1 gas well predates the domestic water well. The proposed below-grade tank is within a 100-year floodplain as defined by the FEMA Flood Insurance Rate Map (FEMA).

The Maintenance and Operations General Plan included with this application describes the standards of practice and intentions for the tank at this location. The below-grade tank intended for this location will consist of a steel double-bottom tank, with leak protection, enclosed in a secondary containment structure. The double bottom serves to prevent leaks from the tank. The secondary containment structure is sized adequately to contain any overflow that may result from an unforeseen precipitation event. A detention berm is constructed around the tank perimeter. The berm will be designed to provide sufficient freeboard to prevent overflow. The berm also prevents surface water from flowing into the tank or containment structure. Water will be pumped from the tank at regular intervals to prevent the tank from filling and overflowing. The design features serve to prevent liquids from entering the tank from the well pad surface and to prevent liquids in the tank from leaving the tank area. These measures are sufficient to protect groundwater quality



SOURCE INFORMATION:

1) NEW MEXICO GEOSPATIAL DATA ACQUISITION COORDINATION COMMITTEE (GDACC), STATE OF NEW MEXICO. "LA PLATA, NM SE USGS DOQQ, SUMMER 2005" (REMOTE SENSING IMAGE). 1:12000 ALBUQUERQUE, NM: BOHANNAN-HUSTON, INC., 2005

2) U.S. GEOLOGICAL SURVEY. LA PLATA QUADRANGLE, NEW MEXICO (TOPOGRAPHIC MAP) 1 24,000. 7.5 MINUTE SERIES. WASHINGTON D.C., USGS, 1963.

	REVISIONS					DRAWN GY.				
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Δ						CHECKED BY		noble	CHEIVIN	
Δ					i —	C.DIÇKERT	5/21/08	noble energy	150 7701 450 770 000 5 407 5	
Δ	, <u>, , , , , , , , , , , , , , , , , , </u>					REVIEWED BY:		J	DOMANUU, CULURROO (1)(01-6840	
Δ				1		1		ALDED	970-385-9100	
Δ						APPROVED BY:		ALBER	DING 1	
Δ						1		SITING (RITERIA	
Δ			-			SCALE		NOBLE ENERGY-BELOW GRADE TANK PERMITS	RIO ARRIBA COUNTY, NEI	
NO.	DESCRIPTION	DATE	BY	сих.	APPR.	90ALE 1"-60	xo*	PROJECT HUBBER 2484—61	A248461-500	REW



New Mexico Office of the State Engineer Wells Without Well Log Information

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

			(quarters are s	mal	est	to	large	st)	(NA	D83 UTM i	n meters)
	Sub			q	q	q					
POD Number	basin	Use	County Source	64	16	4	Sec	Tws	Rng	X	Y
SD 02720	SJLP	IRR	SJ		2	4	03	31N	13W	216374	4091537*
SD 02876	SJLP	IRR	SJ		2	2	03	31N	13W	216398	4092336*
SJ 00544		SAN	SJ	2	4	1	03	31N	13W	215677	4092075*
SJ 01000		PRO	SJ	1	2	4	03	31N	13W	216273	4091636*
SJ 01001		PRO	SJ	1	4	1	03	31N	13W	215477	4092075*
SJ 01448		DOM	SJ	3	1	1	03	31N	13W	215088	4092287*
SJ 02373		DOM	SJ		1	2	03	31N	13W	215996	4092354*
SJ 02456		DOM	SJ	2	1	2	03	31N	13W	216095	4092453*
SJ 02467		DOM	SJ		3	2	03	31N	13W	215984	4091958*
SJ 02471		DOM	SJ		4	2	03	31N	13W	216387	4091941*
SJ 02879		DOM	SJ	2	3	2	03	31N	13W	216083	4092057*
SJ 03137		STK	SJ	3	3	2	03	31N	13W	215883	4091857*
SP 03453 LP1		IND	SJ	3	4	2	03	31N	13W	216286	4091840*
SP 03873 21	SJM3	OIL	SJ	3	4	2	03	31N	13W	216286	4091840*

Record Count: 14

PLSS Search:

Section(s): 3

Township: 31N

Range: 13W

*UTM location was derived from PLSS - see Help



New Mexico Office of the State Engineer

Wells with Well Log Information

			(quar	ters are 1					,	(NIA DO	2 LITM	4\				to to	- 43
POD Number	Sub	Use	County	(quarters				•	,	(NAD8	3 UTM in me Y	•	Start Date	Finish Date	Log File	(ın fe Depth	•
	basın		•		6416				3						Date	Well	Water
SJ 02990		DOM	SJ	Shallow	4 3	2	03	31N	13W	216083	4091857*	349	05/10/2000	05/11/2000	05/22/2000	100	22
SJ 03386		DOM	SJ	Shallow		2	03	31N	13W	216185	4092159*	575	08/29/2003	09/01/2003	09/10/2003	80	11
SJ 01079		DOM	SJ	Shallow	3	3	34	32N	13W	215206	4092785*	1124	10/22/1979	10/26/1979	11/01/1979	100	30
SJ 02577		DOM	SJ	Shallow	4	4	34	32N	13W	216409	4092731*	1151	08/27/1994	08/30/1994	09/08/1994	30	15
SJ 00798		STK	SJ	Shallow		2	10	31N	13W	216141	4090552*	1306	09/13/1978	09/18/1978	09/27/1978	125	65
SJ 01094		DOM	SJ	Shallow		2	10	31N	13W	216141	4090552*	1306	12/04/1979	12/07/1979	12/12/1979	130	60
SJ 02590		DOM	SJ	Shallow	3 2	1	02	31N	13W	217099	4092201*	1419	04/05/1995	04/12/1995	04/24/1995	114	70
SJ 02783		DOM	SJ	Shallow	4 3	3	35	32N	13W	216909	4092611*	1426	09/20/1997	09/22/1997	10/01/1997	62	48
SJ 03635		DOM	SJ	Shallow	4 2	4	34	32N	13W	216523	4093046*	1476	05/22/2005	05/22/2005	05/25/2005	44	35
SJ 02717		DOM	SJ	Shallow	3	1	10	31N	13W	215108	4090390*	1540	05/23/1997	05/29/1997	05/26/1996	42	22
SJ 02589		DOM	SJ	Shallow	2 3	3	35	32N	13W	216909	4092811*	1549		12/31/1995	11/03/2005	60	35
SJ 01944		DOM	SJ	Shallow	4	2	10	31N	13W	216355	4090331*	1588	03/08/1985	03/10/1985	03/13/1985	20	4
SJ 01952		DOM	SJ	Shallow	4	2	10	31N	13W	216355	4090331*	1588	04/01/1985	04/04/1985	04/09/1985	16	6

Record Count: 13

UTMNAD83 Radius Search (in meters):

Easting (X): 215739

Northing (Y): 4091795

Radius: 1600

Usage Filter:

Use: All Usages

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico

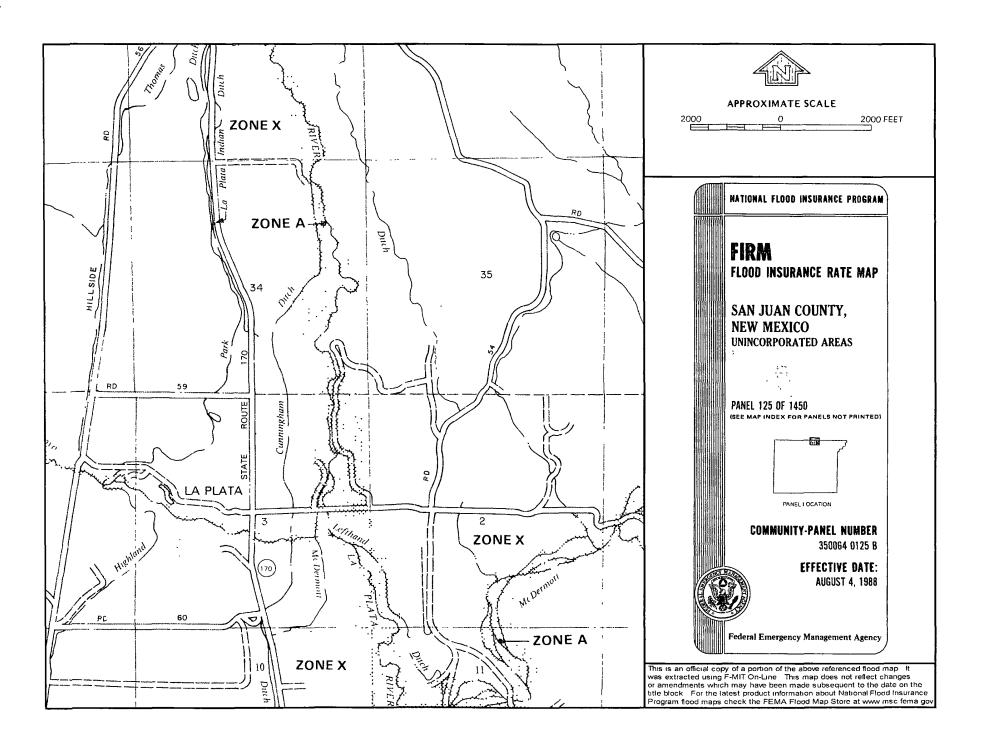
(Form C-104) Revised 7/1/57

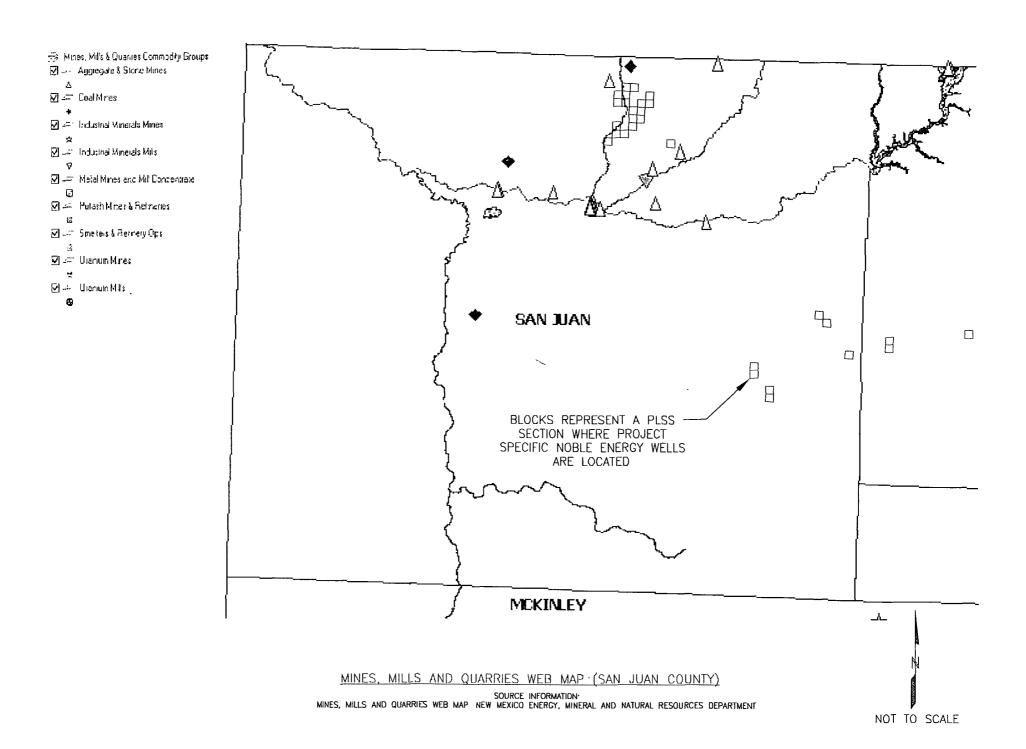
REQUEST FOR (OFF) - (GAS) ALLOWABLE

New Well Recompletion

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7 00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks Gas must be reported on 15.025 psia at 60° Fahrenheit.

				(P	er,Colorado		emberl.,	(Date)
			ING AN ALLOWAB					
(€	ompany o	r Operator)	INC. ALBERDI	(Lease)			•	•
.A. U⊯N I	, Jetter	Sec3	. , T 31N , R	13W, NM	PM., Blanc	o Mesa V	erde	Po
an Jua			County. Date Spu	dded 10/12/	59 Date	Drilling 0 4830	caplated PBTD_	10/31/ 5 9
Ple	ase indica	ate location:	Elevation 518 438	8 8 8	:otal Depth_			
D	C	ВА	Top Oil/Gas Pay PRODUCING INTERVAL		Name of Prod	rorm. N	ssa verde	
		X	Perforations 4	388-4664				
E	F	G H	Open Hole		Depth Casing Shoe	4829	Depth Tubing_	4392
L	K	JI	OIL WELL TEST -	•				Chok
			Natural Prod. Test: Test After Acid or					
M	N	0 P	load oil used):					Chaka
			GAS WELL TEST -					
			Natural Prod. Test:	0	MCF/Dav: Hour	s flowed	Chaka	Siza
uMng Ce	eing and	Cementing Reco	_			= :	_	3126
Size	Feet		the districting (
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Noble Energy, Inc.
Below-grade Tank
Hydrogeologic Report
(Item 11)
San Juan Basin Locations

The below-grade tank described in this application is located within the planning area of the Farmington Field Office of the Bureau of Land Management. This office prepared a Resource Management Plan and Environmental Impact Statement in March 2003 (USDI 2003). Geology of the region was analyzed in this document. A summary of this section (Geology and Minerals pages 3-4-3-9 in Farmington Proposed Resource Management Plan and Final Environmental Impact Statement 2003) is included below as relevant to the below-grade tank for which a C-144 form is being submitted. Additional sources of information for this resource are listed in the original text.

The San Juan Basin, an asymmetrical syncline roughly 200 miles long and 130 miles wide (including the portion that extends north into Colorado), is the dominant geological feature of northwestern New Mexico. The San Juan Basin reached its current structural arrangement upon completion of downwarping of Cretaceous-aged rocks at the end of the Laramide uplift Later, deeply buried organic matter was heated and gas and oil were formed in stratigraphic traps in the basin. Epicontinental sea deposition that occurred between periods of major uplift created the Cambrian to Quaternary sedimentary rocks that are found over Precambrian rocks. Depositional environments for rock units included deep marine, shoreline, continental, and fluvial. Wind-blown sand also contributed to the depositional environment in the Triassic-Jurassic interval. Tertiary sediments arrived in the San Juan Basin when the San Juan Mountains and southern Rocky Mountains began to erode and these sediments were transported and deposited in the basin (in the Tertiary period).

Rocks of the San Juan Basin include predominately shales and sandstones that range in age from Cambrian to Quaternary. Coals, carbonates, and igneous rocks are also found in the basin to a lesser degree. Together, the sedimentary rocks are more than 14,000 feet thick at the New Mexico/Colorado state line. Six thousand feet of Cretaceous sandstones, siltstones, shales, and coals form the top layers in the basin. The hydrocarbon reservoirs in the basin are all within these Cretaceous layers where plants and animals decomposed. These include the Fruitland Formation, Pictured Cliffs Sandstone, Mesa Verde Group, and Dakota Sandstone. Shales and sandstones from the Permian through the Pennsylvanian periods (1,700-2,900) feet thick) are found below these layers. The oldest layer of rocks, the Precambrian basement rocks, are located more than 7,500 feet below sea level in the basin's deepest part.

Understanding the geology of the San Juan Basin sets the stage for understanding its hydrology. As with geology, hydrology of the basin was researched and described in the Farmington Proposed RMP and Final EIS (USDI 2003). The following is a summary of this report as pertains to the below-grade tank that is being permitted through the Oil Conservation District.

Aquifers are found in the sandstones under the San Juan Basin as well as within unconsolidated sands and gravels. Water quality in these aquifers ranges from fair to poor (varying degrees of salinity) The largest aquifer under the San Juan Basin is the Uinta-Animas Aquifer. This aquifer is made up of the San Jose Formation, the Animas Formation, the Nacimiento Formation and the Ojo Sandstone. This aquifer reaches its maximum thickness at the northeast end of the basin at approximately 3,500 feet. The Uinta-Animas aquifer receives groundwater recharge from the higher altitude areas of the basin, which are located along its margins. Water is discharged from the aquifer toward the San Juan River and is discharged into streams, valley alluvium, and lost to vegetation evapotranspiration.

The Mesaverde Aquifer is also present in the San Juan Basin. Its water-yielding components are within the Upper Cretaceous Mesaverde Group as well as in some Tertiary and other Upper Cretaceous formations. The Mesaverde aquifer reaches its maximum thickness at the southern end of the basin at approximately 4,500 feet. It receives recharge from areas of higher elevation that receive more precipitation. Water is discharged from the aquifer along streams and rivers including the San Juan River and the Chaco River.

Groundwater is also present in unconsolidated sand and gravel of the Rio Grande aquifer system. Water enters this aquifer through runoff from mountainous areas surrounding the basin. Most of this water is lost through evaporation before it can reach the aquifer. The quality of this water is affected by the quality of the runoff that reaches it.

From: Farmington Proposed Resource Management Plan and Final Environmental Impact Statement. March 2003. US Department of Interior, Bureau of Land Management, Farmington Field Office, Farmington, NM (BLM-NM-PL-03-014-1610).

Noble Energy, Inc.

Below-grade Tank Design and Construction General Plan San Juan Basin Locations

This general plan was written in accordance with New Mexico Administrative Code 19.15.17 to describe Noble Energy's standard design and construction of below-grade tanks in the San Juan Basin. Any tanks that do not conform to this plan will be described in separate, specific plans submitted to the Oil Conservation Division for those tanks.

All below-grade tanks will be designed and constructed to contain liquids and solids, to prevent contamination of fresh water, and to protect public health and the environment (19.15.17.11 A). The location of these tanks will be indicated by the existing well site sign in accordance with NMAC 19.15 16.8. Noble will ensure the tank is fenced in accordance with 19.15.17.11 D to prevent unauthorized access. Fences will be designed and maintained to keep livestock and wildlife out of the tank area. If the tank is located within 1,000 feet of a permanent residence, school, hospital, institution, or church, a six-foot (minimum height) chain link security fence with at least two strands of barbed wire along the top will be used instead. Migratory birds and other wildlife will be protected from entering the tank from the top by netting, screening, or other covering that prevents access into the tank (19.15.17.11 E).

All tanks will be constructed from materials resistant to that tank's contents as well as to sunlight damage (19.15.17.11 I). The foundation of the tank will be level and free from objects that could crack or dent the tank liner or bottom. All tanks will be constructed so that overflow is prevented and surface water run-on is not collected. These tanks do not have double walls. The side walls are open for visual inspection for leaks. The tanks will be enclosed within a secondary containment structure sized to accommodate all possible overflow in the event the tank fills before it can be pumped (i.e. resulting from an unusual rain event). This secondary containment structure will be surrounded on the surface by a berm to prevent surface water flow into the tank or containment structure. Tanks will be pumped of produced water at regular intervals to prevent overflow.

Noble Energy, Inc. Below-grade Tank Maintenance and Operations General Plan (Item 11) San Juan Basin Locations

This general plan was written in accordance with New Mexico Administrative Code 19.15.17.12 to describe Noble Energy's standard maintenance and operations for below-grade tanks in the San Juan Basin. Any tanks that do not conform to this plan will be described in separate, specific plans submitted to the Oil Conservation Division for those tanks.

All tanks will be maintained and operated such that:

- liquids and solids are contained in the tank
- the integrity of the liner is maintained
- the liner system and/or secondary containment system is maintained
- contamination of fresh water is prevented
- public health and the environment are protected

Noble will not discharge or store any hazardous waste in the below-grade tank.

Noble will inspect the below-grade tank at least monthly and will maintain a written record of each inspection for five years. In the event of a leak, or if there is any penetration of the tank below the liquid's surface, Noble will remove all liquid above the damage point (leak) within 48 hours. Noble will notify the appropriate division office within 48 hours of the discovery. The damage will be repaired or the entire tank will be replaced.

Noble will not allow a tank to overflow or allow surface water run-on to enter the tank. Noble will operate this tank in order to prevent the collection of surface water run-on. The tank will be operated so that adequate freeboard is maintained to avoid overtopping the tank.

Noble will remove any visible or measurable layer of oil from the fluid surface of a below-grade tank.

Noble Energy, Inc Below-grade Tank Closure General Plan (Item 11) San Juan Basin Locations

This general plan was written in accordance with New Mexico Administrative Code 19 15 17 13 to describe Noble Energy's standard closure of below-grade tanks in the San Juan Basin. Any tanks that do not conform to this plan will be described in separate, specific plans submitted to the Oil Conservation Division for those tanks.

Noble will close below-grade tanks according to the requirements of NMAC 19 15 17 13 A, unless otherwise required by the division due to imminent danger to fresh water, public health, or the environment. Noble will close existing below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of NMAC 19 15 17 11 or are not included in Paragraph (5) of Subsection I of 19 15 17 11 within five years of June 16, 2008, unless they are retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19 15 17 11. Noble will close permitted below-grade tanks within 60 days of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15 17 17 in accordance with a closure plan that the appropriate division office approves

Noble will use division-approved methods to close below-grade tanks (Subsection E 19 15 17 13) Noble will remove liquids and sludge from a below-grade tank prior to implementing a closure method and will dispose of the liquids and sludge in a division-approved facility. Noble will remove the tank and either dispose of it in a division-approved facility, recycle it, reuse it, or reclaim it in a manner that the appropriate division office approves. Any associated on-site equipment will be removed unless required for another purpose on site

Noble will test the soils under the tank to determine whether or not a release has occurred. Noble will collect at a minimum

- a five-point, composite sample
- individual grab samples from any area that is wet, discolored, or showing other evidence of release

Noble will have samples analyzed for BTEX, TPH, and chlorides to demonstrate that:

- the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method as approved by the division, does not exceed 0.2 mg/kg
- total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method approved by the division, does not exceed 50 mg/kg
- the TPH concentration, as determined by EPA method 418 1 or other EPA method approved by the division, does not exceed 100 mg/kg
- the chloride concentration, as determined by EPA method 300 1 or other divisionapproved EPA method, does not exceed 250 mg/kg, or the background concentration, whichever is greater

Noble will notify the division of testing results on form C-144. Noble will perform additional testing as required by the division upon their review of the initial results

If Noble or the division determines that a release has occurred, Noble will comply with NMAC 19.15 29 and 19 15.30 as appropriate.

If the sampling indicates that no release has occurred or that any release did not cause the samples to exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17 13, Noble will.

- backfill the excavation with compacted, non-waste containing, earther material
- construct a division-prescribed soil cover
- · recontour and re-vegetate the site

Noble will follow Subsections G, H, and I of 19.15:17.13 for soil cover, recontouring, and revegetation of the site. Soil cover will consist of the background thickness of topsoil or 1 foot of suitable material to establish vegetation, whichever is greater. The soil required for backfilling the excavation will consist of a minimum of 4 feet of compacted, non-waste containing, earthen material. Recontouring of the land will return the land to a safe and stable condition that blends with the surrounding undisturbed area by restoring the near-original contour of the site. Noble will grade the soil cover to the site's existing grade and will prevent ponding of water and erosion of the cover material. Noble will seed or plant the site (including any associated areas such as access roads that are no longer needed) during the first growing season following tank closure. Noble will drill seed on the contour whenever practical or follow another division-approved seeding method. Noble will achieve 70% of native perennial vegetative cover consisting of at least three native plant species, at least one grass, and without establishment of noxious weed species. This cover will be maintained without irrigation for two successive growing seasons. Noble will repeat seeding and/or planting until this cover goal has been met at which point Noble will notify the division that re-vegetation has been successful

Notice of tank closure will be according to 19 15.17.13J. Noble will notify the surface owner by certified mail, return receipt requested that the tank is to be closed. The appropriate division office will be notified at least 72 hours (but no more than one week) prior to tank closure. Noble will communicate the following details to the division in this closure notice:

- operator's name (Noble Energy Inc.)
- location unit letter
- location section, township, and range

In the case of closure of a tank associated with a well, Noble will include:

- well name
- well number
- API number

Within 60 days of closure completion, Noble will submit to the division a certified closure report on form C-144 as specified in 19 15 17.13K.

Item # 15: Disposal Facility name and permit number (page 3)

The following are used by Noble Energy Inc. for waste water disposal.

Company: A

AGUA MAS

Phone:

505-632-3640

Permit #:

IPI-278

Location:

PRETTY LADY 30-11-34 #1

API:

30-045-30922

Company:

BASIN DISPOSAL

Phone:

505-334-3013

Permit #:

NM001-0005

Location:

Disposal # 001

API:

30-045-26862

Company:

T-N-T DISPOSAL

Phone:

505-320-2130

505-320-2737

Permit #:

NM001-0008