#### <u>District I</u>

♦ 1625 N French Dr , Hobbs, NM 88240

<u>District II</u> 1301 W Grand Ave , Artesia, NM 88210

District III

 $1000\;Rio\;Brazos\;Rd\;,\;Aztec,\;NM\;\;87410$ 

District IV 1220 S St Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources

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

July 21, 2008

For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office

Form C-144

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

4255

#### Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:	Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
	Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
	Modification to an existing permit
	X 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 of the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations of ordinances.

Operator: Burlington Resources Oil & Gas Com	ipany, LP	OGR	RID#: 14538	
Address: PO Box 4289, Farmington, NM 8749	9			
Facility or well name: Ute Mtn Ute 50				
API Number: 30-045-29548		OCD Permit Number:		
U/L or Qtr/Qtr: F(SE/NW) Section: 22	Township: 32N	Range:14W	County: San Ju	ian
Center of Proposed Design: Latitude:	36.9757 °N	Longitude:	108.29849 °W	NAD: X 1927 1983
Surface Owner: Federal State	Private XT	ribal Trust or Indian Allo	tment	
	P&A hickness <u>12</u> mil	X LLDPE HDPE	Depuision of the Depuis	
Liner Seams X Welded X Factory C	Other	Volume 4400 bbl	Dimensions L 65'	x W 45' x D 10'
Closed-loop System: Subsection H of 19.15  Type of Operation: P&A Drilling a ne		or Drilling (Applies to activit	ies which require prior	approval of a permit or
	Haul-off Bins uckness mil	Other LLDPEHDPE	PVD Other	128293037 PECELVEE
Below-grade tank: Subsection I of 19.15.17.1  Volume: bbl Type  Tank Construction material:	1 NMAC of fluid			CZ OIL CONS. DIV. DIST 3
Secondary containment with leak detection		er, 6-inch lift and automatic of ther	overflow shut-off	OCT. 2009 CL OIL CONS. DIV. DIST 3
5 Alternative Method: Submittal of an exception request is required. Exception	ons must be submitted to	the Santa Fe Environmental		

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)						
Subsection 2 of 15.15.17.11 Parties (Applies to permanent pit, temporary pits, and velous grade tanks)						
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, insti-	itution or churc	ch)				
Four foot height, four strands of barbed wire evenly spaced between one and four feet						
X Alternate. Please specify 4' hogwire fence with a single strand of barbed wire on top.						
7						
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)						
Screen Netting Other						
Monthly inspections (If netting or screening is not physically feasible)						
8 Signs: Subsection C of 19 15.17.11 NMAC						
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers						
X Signed in compliance with 19.15.3.103 NMAC						
A Signed in compliance with 19.13.3.103 NWAC						
9 Administrative Approvals and Eventions.						
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 of the Santa Fe Environmental Bureau office for const	ideration of ap	proval.				
(Fencing/BGT Liner)						
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.						
Siting Criteria (regarding permitting): 19.15.17.10 NMAC						
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable						
source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the						
appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for						
consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.						
		_				
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	Yes	∐No				
- 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 watercourse, lakebed, sinkhole, or playa	∐Yes	∐No				
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 church in existence at the time of initial	Yes					
application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)						
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□'`''					
		Пм.				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	∐No				
(Applied to permanent pits)	│ ∐ <sup>NA</sup>					
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image		_				
Within 500 horizonal 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.	Yes	∐No				
purposes, or within 1000 norizontal feet of any other fresh water well of 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.						
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes	□No				
adopted pursuant to NMSA 1978, Section 3-27-3, as amended	—					
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	l					
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	∐Yes	∐No				
* * * * * * * * * * * * * * * * * * * *	☐ Yes	□No				
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	🗀 168	LJ'''0				
Within an unstable area.	□Yes	□No				
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	ا ا					
Society; Topographic map						
Within a 100-year floodplain	Yes	No				
- FEMA map	I					

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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
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  or Permit
12
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application Please indicate, by a check mark in the box, that the documents are attached.
Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
Design Plan based upon the appropriate requirements of 19.15.17.11 NMAC
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API
Previously Approved Operating and Maintenance Plan API
12
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15 17.11 NMAC
Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15 17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19 15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14  Proposed Closure: 19.15.17.13 NMAC  Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: X Drilling Workover Emergency X 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)
X On-site Closure Method (only for temporary pits and closed-loop systems)
X In-place Burial On-site Trench
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Discussion of the consideration of the same and the same and the consideration of the same and the consideration of the same and the same and the consideration of the same and the same and the consideration of the same and the
Waste Excavation and Removal Closure Plan Checklist: (19 15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan.
Please indicate, by a check mark in the box, that the documents are attached.
Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15.17 13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Form C-144

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17 13 D NMAC) Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two fe	acılıtıes						
are required.  Disposal Facility Name							
Disposal Facility Name. Disposal Facility Permit #:  Disposal Facility Name Disposal Facility Permit #:							
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  Yes (If yes, please provide the information No							
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	С						
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided belo certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the for consideration of approval Instifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance							
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS: Data obtained from nearby wells	Yes X No						
Ground water is between 50 and 100 feet below the bottom of the buried waste	X Yes No						
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	N/A						
Ground water is more than 100 feet below the bottom of the buried waste.	Yes X No						
- NM Office of the State Engineer - IWATERS database search; USGS; Data obtained from nearby wells	N/A						
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).	Yes X No						
- Topographic map, Visual inspection (certification) of the proposed site							
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	Yes X No						
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the time of the initial application  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	Yes XNo						
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 X No						
Within 500 feet of a wetland  - US Fish and Wildlife Wetland Identification map: Topographic map, Visual inspection (certification) of the proposed site	Yes XNo						
Within the area overlying a subsurface mine.  - Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division	Yes XNo						
Within an unstable area - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources; USGS, NM Geological Society;	Yes XNo						
Topographic map Within a 100-year floodplain FEMA map	Yes XNo						
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must bee attached to the closur by a check mark in the box, that the documents are attached.	re plan. Please indicate,						
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC							
X Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC							
Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC							
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate requirements of 1	9.15.17.11 NMAC						
X Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC							
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC							
<ul> <li>Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17 13 NMAC</li> <li>Disposal Faculity Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards can be considered from the constant of the</li></ul>	nnot be achieved)						
<ul> <li>X Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	mior de acmeveu)						
X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15 17 13 NMAC							
X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC							

19					
	ation Certification:				
	the information submitted with this app				
Name (Print):	Dollie L Busse			f Regulatory Technicia	n
Signature: _	Milie).	Occase Date	:	127/09	
e-mail address:	dollie I busse@conocopi	nillips com Telepl	none	505-324-6104	
		No.			
20	Downst Assiliantion (in studios		N (l-)	OD C11/1 (	
OCD Approvai:	Permit Application (including of	closure plan) Closure i	Plan (only) UO	CD Conditions (see atta	achment)
OCD Representa		6 ell		Approval Date:	11/2/09
TENAN.	Enviro/spec		OCD B W N		
Title:	LUVINO /SPEC	····	OCD Permit Num	ber:	P-falking blood - out
21					
Closure Report (1	required within 60 days of closure	completion): Subsection K of 19 1	5 17 13 NMAC	i.	
Instructions. Operat	ors are required to obtain an approved	closure plan prior to implementi	ng any closure activi		
	be submitted to the division within 60 can has been obtained and the closure ac		ure activities. Please	e do not complete this sec	tion of the form until an
approved closine pu	veen voidined und me civalité de		Clasura Carrel	lation Deter	
<u></u>			Closure Comp	ection Date:	
22					
Closure Method:					
Waste Excav	vation and Removal On-site	Closure Method	tive Closure Method	Waste Removal (C	Closed-loop systems only)
If different f	rom approved plan, please explain				
23					
	garding Waste Removal Closure For				
	identify the facility or facilities for wh	ere the liquids, drilling fluids ar	nd drill cuttings were	disposed. Use attachme	nt if more than two facilities
were utilized.  Disposal Facility	Name:	Dien	osal Facility Permit N	Jumber	
Disposal Facility			osal Facility Permit I	<del></del>	
	loop system operations and associated a		·		neartions?
—	please demonstrate complilane to the ite	_	s that war nor be used	a for factive service and of	cartions.
	acted areas which will not be used for j				
I — · · ·	ation (Photo Documentation)	mare service and operations.			
Soil Backfill	ing and Cover Installation				
Re-vegetatio	n Application Rates and Seeding Techr	nque			
24			,		
	t Attachment Checklist: Instructio	ns: Each of the following items	must be attached to t	the closure report. Please	e indicate, by a check mark in
	documents are attached.				
	osure Notice (surface owner and div	<i>'</i>			
	eed Notice (required for on-site closu				
	or on-site closures and temporary pi				i
	on Sampling Analytical Results (if a	· <del>-</del>			
	erial Sampling Analytical Results (if	applicable)			
	acility Name and Permit Number				
_ =	lling and Cover Installation	1 '			
	on Application Rates and Seeding T	ecnnique			
	nation (Photo Documentation)	•	. 4 -	,,,,,,	1027 🗖 1023
On-site Clo	sure Location: Latitude	Longiti	.ue:	NAD	1927 1983
25	C CC				
Operator Closure		and mid-along along a comment		whata to the kt-f	out ada a and halvef. I store sweet store
,	the information and attachments submi with all applicable closure requiremen	•			owieuge and veilej. I also certify indi
-		• •			
Name (Print):		T	itle:		
Signature:		D	ate:		
_			•		· · · · · · · · · · · · · · · · · · ·
e-mail address:		Tele	phone:		



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

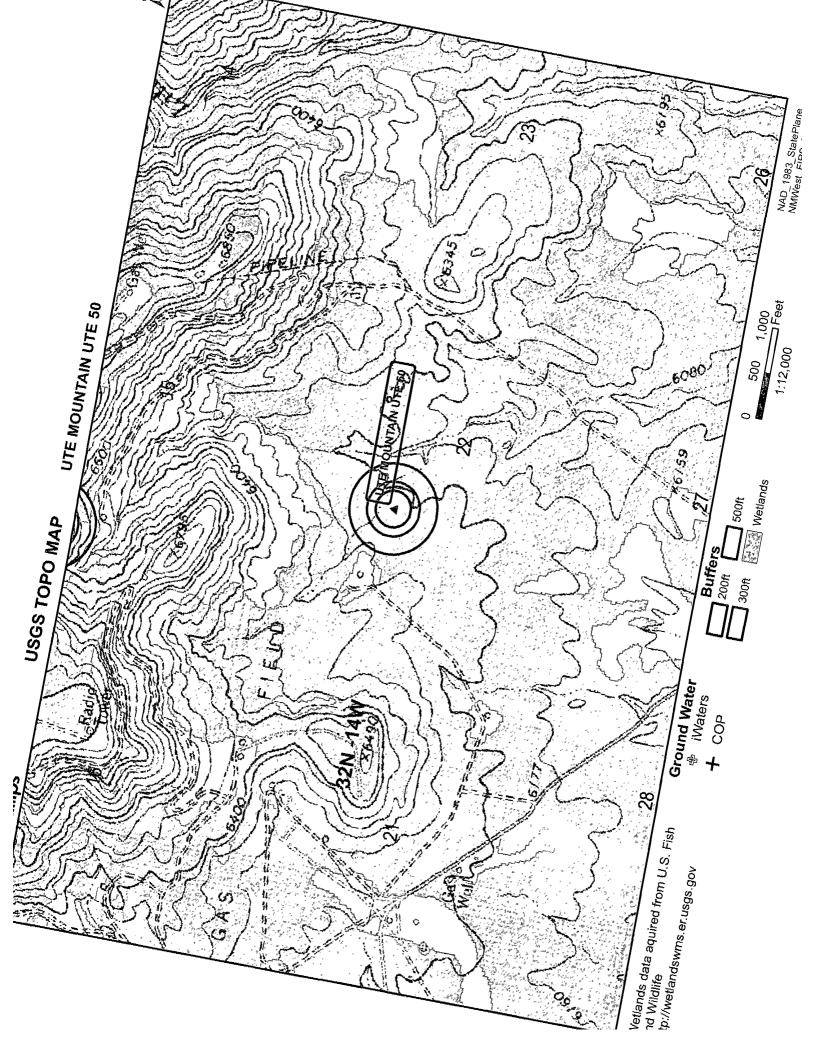
No records found.

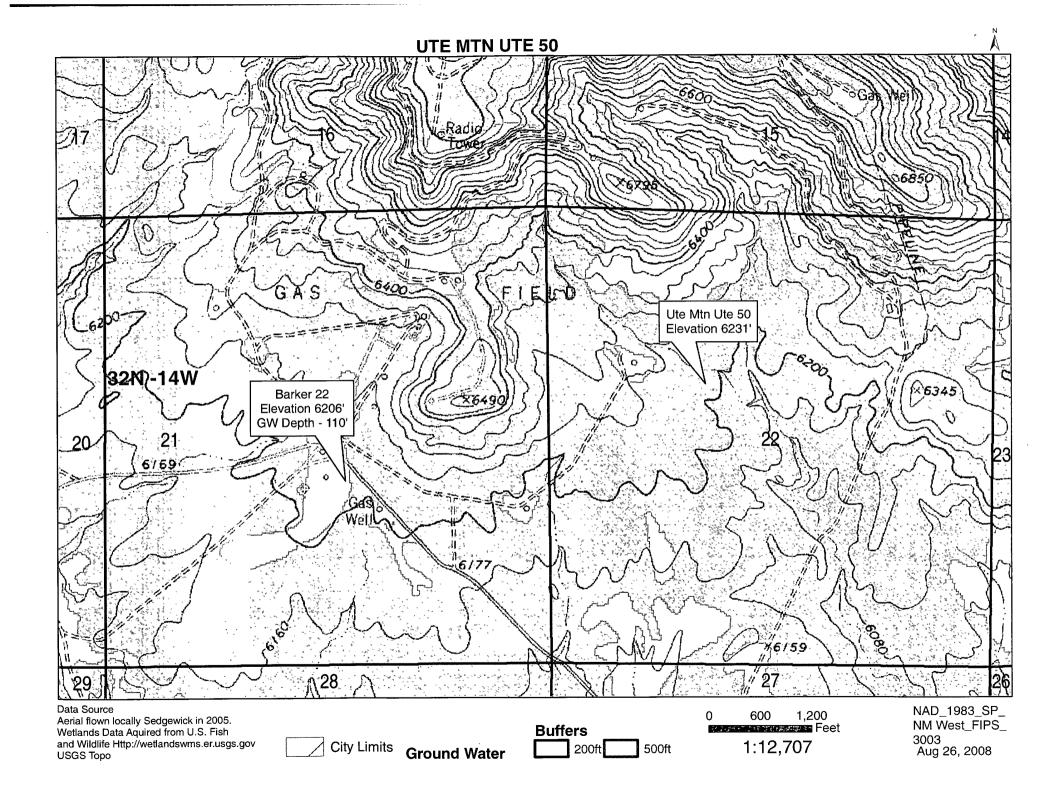
PLSS Search:

**Section(s):** 14, 15, 16, 21, **Township:** 32N **Range:** 14W 22, 23, 28, 27,

26, 20

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, or suitability for any particular purpose of the data.





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

Operator Meyidian Oil Location: Unit J	Sec. 2/ Twp32 Rng //
Name of Well/Wells or Pipeline Serviced	`\`
Barker 22	
Elevation — Completion Date 8-/6-95 Total Depth 400	Land Type
Casing Strings, Sizes, Types & Depths	
97' of 8" PVC.	
If Casing Strings are cemented, show amounts & types	used
21 SacKS	
If Cement or Bentonite Plugs have been placed, show o	depths & amounts used
N/A	
Depths & thickness of water zones with description of	f water: Fresh, Clear,
Salty, Sulphur, Etc. 10 Fiesh	
Depths gas encountered: NA	
Ground bed depth with type & amount of coke breeze u	sed: 390
101 sacks Asbury 21812	
Depths anodes placed: 377 371 365 359 363 347 335 329 3	323 300 280 274, 268, 255 225
Depths vent pipes placed: 390	
Vent pipe perforations: BoHop 285'	DECEIVED AND A 1 1 1996
Remarks:	
·	OIL COM. DIV.
	ம்பம் இ

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

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

- 2. In hit and clean out well to total depth of 2341 ft.
- 3. un 5-1/2" baker Hodel "" Packer on 2" ..... tubing in order to clean and produce well more effectively.
- 4. Set packer at approximately 2170 ft. with bottom of tabing at appreniantely 2270 ft.
- 5. Such well in and place on production.

JUN 2 5 1970

OIST. 3

			_		
18. I hereby certifyighatiling the greekding is true and correct					
GILBERT D. NOLAND, JR.	TITLE	rilling Superintendent	DATE	June 22, 1	70
dilbert be beland dre					
(This space for Federal or State office use)			,		
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	TITLE _		DATE _		

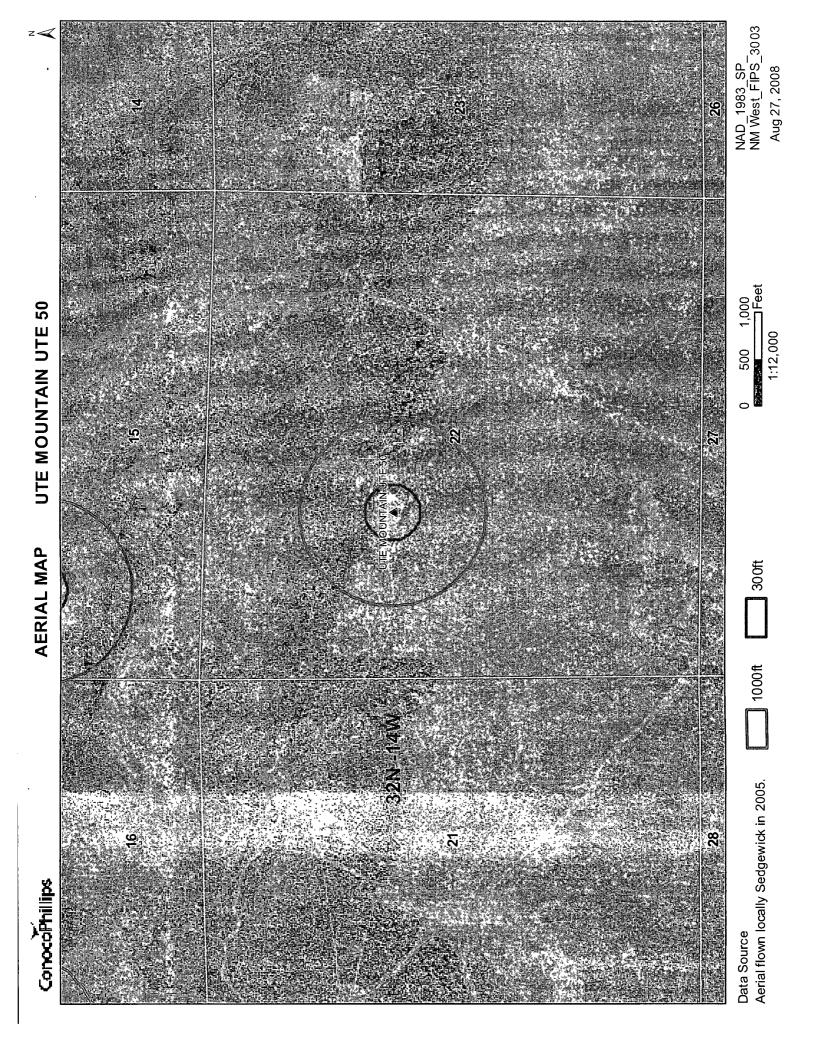
APPROVED

JUN 22 1970

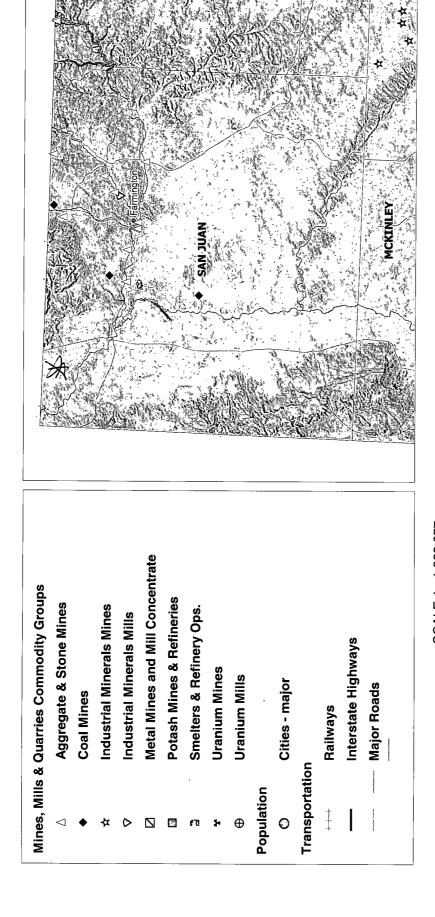
E A SCHMIDT

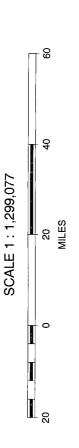
\*See Instructions on Reverse Side

> 1



# Ute Mountain Ute 50





#### Hydrogeological report for Ute Mtn Ute 50

#### **Regional Geological context:**

The Menefee Formation is of late Cretaceous age and crops out beyond the margins of the central San Juan Basin. Erosion-resistant sandstones in the Menefee Formation commonly cap isolated buttes and hillocks, whereas softer shale units form slopes and broad valleys or flats. Topography formed by the Menefee is typically rolling to rough, broken and steep, and generally has a badland appearance. The upper part of the Menefee Formation commonly forms steep slopes below mesas or buttes capped by the erosion-resistant Cliff House Sandstone.

The Menefee Formation is the middle unit of the classical three-part Mesaverde Group of the San Juan Basin. The Menefee Formation conformably or disconformably overlies the Point Lookout Sandstone and is conformably or disconformably overlain by the Cliff House Sandstone; intertonguing locally occurs at both contacts (Tabet and Frost, 1979, Stone et al, 1983). Some authors have reported the Menefee to be conformably overlain by the Lewis Shale in the southeastern part of the basin (Dane, 1936; Beaumont and others, 1956). South of the pinch-out of the Point Lookout Sandstone in the vicinity of Gallup, New Mexico, the Menefee conformably overlies the Crevasse Canyon Formation.

In general, the Menefee Formation consists of interbedded and repetitive sequences of differing thicknesses of sandstone, siltstone, shale and claystone, carbonaceous shale and coal beds of differing thicknesses (Tabet and Frost, 1979). Typically the sandstones are lenticular, light brown to gray, thick to very thick bedded, and fine to medium grained, with clay matrix and various types of cement. The siltstones commonly are tabular, gray, and thin to thick bedded; shales and claystones typically are light brownish gray and thick to very thick bedded (Tabet and Frost, 1979).

The Menefee Formation increases in thickness from north to south. Thickness ranges from zero where the unit pinches out between the Point Lookout and Cliff House Sandstones in Colorado to about 2,000 feet along its southern outcrop area (Molenaar, 1977)

#### **Hydraulic Properties:**

The transmissivity of the Menefee Formation depends on the thickness of sandstone lenses penetrated. Transmissivity values reported for nine aquifer tests (Stone et al, 1983) range from 2.7 to 112 feet squared per day and the median value is 10 feet squared per day. Hydraulic conductivity calculated from drill-stem tests in oil and gas wells in deeper parts of the basin averages 0.017 foot per day (Reneau and Harris, 1957). The reported or measured discharge from 83 water wells and seven springs completed in the Menefee Formation ranges from 2 to 308 gallons per minute and the median is 10 gallons per minute. The specific capacity of 37 of these wells ranges from 0.002 to 0.57 gallon per minute per foot of drawdown and the median is 0.11 gallon per minute per foot of drawdown.

Water from the Menefee Formation is used for livestock watering and domestic purposes. Most wells completed in the Menefee are designed for a low but steady yield of water because the ultimate rate of yield is limited by the rate of leakage of water from shale and silt that encase the lenses of sandstone. Because of the extensive area of the outcrop and the lenticular occurrence of water-yielding sandstones in a clay matrix, the Menefee Formation is both one of the most widely used aquifers and one of the most regionally effective confining units in the basin.

#### **References:**

Beaumont, E.C., Dane, C.H., and Sears, J.D., 1956, Revised nomenclature of Mesaverde Group in San Juan Basin, New Mexico: American Association of Petroleum Geologists Bulletin, v.40, no. 9, p. 2149-2162.

Dane, C.H., 1936, The La Ventana-Chacra Mesa coal field, in The geology of fuels in the southern part of the San Juan Basin, New Mexico: U.S.G.S. Bulletin 860-C, p. 81-161. Molenaar, C.M., 1977, Stratigraphy and depositional history of Upper Cretaceous rocks of the San Juan Basin area, New Mexico and Colorado, with a note on Economic resources, in Fassett, J.E., ed., Guidebook of San Juan Basin III: New Mexico Geological Society, 28<sup>th</sup> Field Conference, p. 159-166.

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#### Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Ute Mtn Ute 50 is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The FEMA Map for the subject well is unavailable due to its location being on the reservation. FEMA does not provide floodplain information for Reservation land. This well is not located near a wash or watercourse and is not in 100 year floodplain as visible on the topographic map. The Cathodic well data from the Barker 22 has an elevation of 6206' and groundwater depth of 110'. The subject well has an approximate elevation of 6231' which is greater than the Barker 22, therefore the groundwater depth is greater than 100'. There are no iWATERS data points located in the area as indicated on the TOPO Map. The hydro geologic analysis indicates the groundwater depth and the Menefee formation will create a stable area for this new location.

District I

1625 N. French Dr., Hobbs, NM 88240 Phone: (505) 393-6161 Fax: (505) 393-0720

District II

1301 W. Grand Ave., Artesia. NM 88210 Phone:(505) 748-1283 Fax:(505) 748-9720

<u>Distret H</u>I

1000 Rio Brazos Rd., Azrec, NM 87410 Phone:(505) 334-6178 Fux:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-102 Permit 94161

WELL LOCATION AND ACREAGE DEDICATION PLAT

1, API Number	2. Pool Code	2. Pool Code 3. Pool Name				
30-045-29548	WC Honaker Trail					
4. Property Code 18725	5. Property Name UTE MOUNTAIN UTE	6. Well No. 050				
7. OGRID No. 14538	8. Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY I	9. Elevation LP 6231				

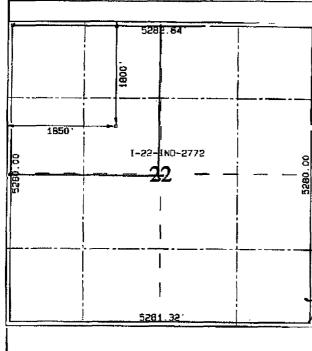
10. Surface Location

20. Dal art Docaron										
UL - Lot	Section	Township	Kange	Lat Ida	Feet From	N/S Line	Feet From	E/W Line	County	
F	22	32N	14 <b>W</b>		1800	N	1850	w	SAN JUAN	

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot	Idn	Feet From	N/S I	inė	Feet Prom	E/W Line	County
12. Dedi	cated Acres	1 à	loint or Infill		14	. Consolidation (	Code			15. Order No.	
160 N/	W 4				, · ·						

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



#### OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Patsy Clugston

Title: Sr.Regulatory Specialist

Date: 4/20/09

#### SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Neale Edwards Date of Survey: 11/20/1997 Certificate Number: 6857

#### Burlington Resources Oil & Gas Company, LP San Juan Basin Closure Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

#### **General Plan:**

- All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011).
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email, or verbally. The notification of closure will include the following:
  - i. Operator's name
  - Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500 .
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	(1000)500

- 9. Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.
- 10. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.
- 11. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011
- 12. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Reshaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 13. Notification will be sent to OCD when the reclaimed area is seeded.
- 14. BR shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Туре	Variety or Cultivator	PLS/A
Western wheatgrass	Arriba	3.0
Indian ricegrass	Paloma or Rimrock	3.0
Slender wheatgrass	San Luis	2.0
Crested wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2.0
Four-wing Saltbrush	Delar	.25

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

Source No. two (better quality) Source No. One (poor quality) Purity 50 percent Purity 80 percent 63 percent 40 percent Germination Germination 50 percent Percent PLS 20 percent Percent PLS 5 lb. bulk seed required to make 2 lb. bulk seed required to make

1 lb. PLS 1 lb. PLS

15. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.